



**QUESTION AND ANSWER
FOR
MARCH 2020
CHARTERED ACCOUNTANT ZAMBIA PROGRAMME
PAPERS**



CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 20 MARCH 2020

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:
Section A: Ten (10) compulsory multiple choice questions.
Section B: One (1) compulsory scenario question.
Plus Four (4) scenario questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR.

Section A – (COMPULSORY)

Attempt all Ten (10) multiple choice questions.

QUESTION ONE

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Marks allocated are indicated against each question.

- 1.1 Which one of the following cases stated that *International law can only be applicable in Zambia if it is domesticated through legislative enactment*’?
- A. Zambia Sugar Plc v Fellow Nanzaluka (2001)
 - B. Continental Restaurant And Casino Limited V Arida Mercy Chulu (2000)
 - C. Fisher v Bell (1961)
 - D. Sata v Zambia Bottlers Limited (2003) Z.R. 1.
- (2 marks)
- 1.2 Which branch of government is involved in enforcing the law?
- A. The Legislature
 - B. The Executive
 - C. The Court System
 - D. The Judiciary
- (2 marks)
- 1.3 Which one of the following best describes a valid example of an offer?
- A. A display of goods for sale
 - B. An internet shop that advertises products for sale
 - C. A newspaper advert that includes a specific statement, made to the world at large, offering a reward for the return of a particular item
 - D. An invitation for potential suppliers to tender for the provision of services .
- (2 marks)
- 1.4 One of the following is not a rule of consideration. Identify it.
- A. Consideration must pass from the promisee
 - B. Consideration must be adequate
 - C. Past consideration is bad consideration
 - D. Executory consideration is money given in a contract

(2 marks)

1.5 Which one of the following is true about an exclusion clause?

- A. Exclusion clauses can be incorporated into a contract after the contract is formed
- B. Exclusion clauses are interpreted by the parties
- C. Exclusion clauses are valid if agreed before entering into a contract
- D. None of the above

(2 marks)

1.6 Identify one tort which falls under the tort of trespass to person.

- A. Nuisance
- B. False imprisonment
- C. Defamation
- D. Contributory Negligence

(2 marks)

1.7 Agency of necessity involves...

- A. No instruction from principal, ratification within a reasonable time, best interest of principal.
- B. Best interest of the principal, emergency existed and unable to get instructions from principal
- C. Unable to get instruction, ratification within a reasonable time, best interest of the principal
- D. No instruction from principal, principal has capacity and best interest of principal

(2 marks)

1.8 Partnership deed has the following except:

- A. Names of the business
- B. Arbitration Clause
- C. Death of Partners
- D. Articles of Association

(2 marks)

1.9 Which one of the following is not a type of share capital?

- A. Authorised share capital

- B. Issued share capital
- C. Paid up capital
- D. Redeemable share capital

(2 marks)

10.0 Which one of the following is not an agent of the company:

- A. Director
- B. Company Secretary
- C. Members
- D. None of the Above

(2 marks)

[Total: 20 Marks]

SECTION B

Question TWO (2) in this section is compulsory and must be attempted.

Attempt any THREE (3) questions from the remaining four.

QUESTION TWO

Keziah took her wedding dress which had beads and glitters attached to it to be cleaned by Lusaka Laundry Services. While at the reception, several representations were made between the parties. At the end, the receptionist asked Keziah to sign at the bottom of the form and receipt and she asked the receptionist what the consequences of signing would be. The receptionist said that the form merely included an exclusion of liability clause for any damage they may be caused to any beading and glitters on garments. However, in actuality the exclusion of liability clause pertained to all possible damage that may befall on a garment whilst being cleaned.

After three days, Keziah went to pick up her dress and she found that the dress had been damaged. The damage was that because of the color used, it turned from white to black and had been ripped at the left bottom corner.

When she brought a claim for damages against Lusaka Laundry Services, they refused to pay her damages as they relied on the exclusion clause under the form and receipt.

Required:

- (a) Define an exclusion clause. (2 marks)
- (b) Explain the term misrepresentation to Keziah. (4 marks)
- (c) Explain to Keziah on the conditions required for an exclusion clauses to be valid. (12 marks)
- (d) Explain the term damages. (2 marks)

[Total: 20 Marks]

QUESTION THREE

‘A business man in recent times must be alive to the law relating to employment and must bear in mind the consequences of failing to comply with the said laws’

The above were the opening remarks at a business expo attended by Kalulushi business men whose theme was dubbed; ***‘Understanding the formation and running of Business Associations in the wake of new labour laws’***

Nguzu and Limbani are among the businessmen that attended the said business expo. The two have been informed that; as Directors of their companies, they are Agents of their respective companies, which company may be vicariously liable for any acts they commit in the ambit of duty.

The two have since approached you for a better understanding of what they had learnt at the expo.

Required:

- (a) Explain to Nguzu and Limbani the legal formation of a *Sole Proprietorship* and a *Limited Company by shares*. (10 marks)
- (b) Nguzu and Limbani would also like to understand what the principle of *vicarious liability* entails. Explain to them in simplistic terms. (4 marks)
- (c) List any six (6) duties of an agent. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

- (a) Mutale wants to buy goods from Dubai so that he sales in Lusaka at his shop. The problem is that he does not have any sample of the goods that he wants. However, he is able to describe the types of goods that he wants.

Mutale has a friend called Abyud in Dubai whom he has called and appointed to help him get the goods that are in Dubai.

Required:

- (i) Explain to Mutale the difference between sale by sample and sale by description. (4 marks)
- (ii) Explain how the relationship between Mutale and Abyud was created. (4 marks)
- (b) Kawilo and Kabova are employed at Zica Construction Company, a company involved in the crushing of underground stones and moving the same from one point to the other.

Kawilo and Kabova used to work under and sometimes close to the area where the crushing and moving of the stones was done.

One day, while the stones were being moved from one place to the other, one big stone dropped from the crane and injured Kawilo who sustained a broken leg and Kabova who sustained a broken backbone. The two sued the company after the company refused to compensate them in any ways alleging that the two consented to the risk.

Required:

- (i) Discuss if the defence of consent claimed by the company above can successfully stand in the court of law. (6 marks)
- (ii) Explain any other 3 (three) possible defences available to the company. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Law in a given society has been described to mean several things. Margaret M. Munalula defines law as a system of rules, a set of rules recognized as commanding or forbidding certain actions, which are intended to regulate the conduct of all persons in a particular state, and are enforceable by the courts of the state.

As a result of the above, law has been seen to be complex and encompasses a wide range of branches of law.

- (a) Explain any three (3) classifications of law in Zambia. (6 marks)
- (b) Discuss the stages that a bill goes through before it becomes a law. (11 marks)
- (c) The law above is mostly interpreted in courts by rules of statutory interpretation in case of an absurdity or uncertainty in the law.
List the three (3) rules of statutory interpretation. (3 marks)

[Total: 20 Marks]

QUESTION SIX

Kondwa and Yoyo are childhood friends who since childhood have been planning on establishing a business entity of their own one day, which would stand for centuries. They finished their grade 12 last year but since the results were published on 4th of January 2019, they have been disappointed and disturbed with the said results which are very bad.

However, they have been saving and do actually have enough money to start up their own company. They are disturbed though on the following; type of company, incorporation procedures, capital required, meetings, resolutions, secretary, directors, shares and the effect of incorporation before they can start up the company.

Required:

- (a) Explain to them the difference between a company secretary and a company director. (6 marks)
- (b) Discuss the difference between authorized capital and unpaid capital. (6 marks)
- (c) Explain to them the difference between a meeting and a resolution in relation to the company. (6 marks)
- (d) Describe who a promoter is. (2 marks)

[Total: 20 Marks]

END OF PAPER

CA1.4 SUGGESTED SOLUTIONS

SOLUTION ONE

1. - A
2. - B
3. - C
4. - B
5. - C
6. - B
7. - B
8. - D
9. - D
- 10.- D

SOLUTION TWO

- (a) An Exclusion clause which is otherwise referred to as an exemption clause is defined as, that clause in a contract which purports to exclude liability altogether or to restrict it by limiting damages or by imposing other onerous conditions.
- (b) Misrepresentation refers to a false statement made by one party which induces the other to enter into a contract, but which is not incorporated into a contract. The general rule is that the statement must be made, as keeping quiet about something does not necessarily amount to misrepresentation.
- (c) For an exclusion clause to be valid or enforceable it must satisfy the following two conditions;
 - i. The exclusion clause must be incorporated into a contract before they have legal effect.
 - ii. Exclusion clauses are interpreted strictly. This may prevent the application of the clause. In the case of ambiguity or doubt, it should be interpreted in such a way that does not favour the person who inserted it. Exclusion clauses also only protect the party acting within the contract and any deviation from the contract means that the protection is lost.
 - iii. Exclusion clause to be enforceable, it must be incorporated expressly in the contract and its interpretation is clear.
- (d) Damages are monetary compensation that is given to someone when there has been an injury or damage.

SOLUTION THREE

i.

1. Sole Proprietorship

A Sole Proprietorship is a business association that is run informally, and usually by one person, it is more often than not registered as business name, and under the Business Names Act.

It is worth noting that a Sole Proprietorship and/or Business Name will, just like a limited company have to comply with regulatory compliance measures such a tax, meaning that a Sole Proprietor will pay tax on the business conducted by him or herself, as the case may be.

The only disadvantage that befalls a Sole Proprietor is the very fact that; I such a business association, there is no separate legal personality, meaning that creditors are at liberty to have recourse to the Sole Proprietors personal property.

2. Company Limited by shares

The legal formation of a company limited by shares is such that; the company is incorporated under the Companies Act, which Act makes it mandatory that the word '*Limited*' be included at the end of the company name.

A company limited by shares, once incorporated has what are known as '*shares*' to which members subscribe to for purposes of having a stake in the said company.

The word '*Limited*' as above is meant to entail the fact that; unlike a Sole Proprietorship, the liability of members in a company limited by shares is limited, limited to the extent that the members are only liable to the value of their unpaid for shares, meaning that should the company be wound up, a member cannot be called upon to contribute above and beyond the value of his or her unpaid for shares.

ii. **The principle of Vicarious Liability**

The principle of vicarious liability, put simply is a principle that entails that an Employer will be held liable for the acts or omissions of his Employees that cause damage or injury to a third party, provided that such acts by the said Employee were undertaken in the course of duty and/or employment. It therefore follows that an Employee that decides to be reckless and goes beyond the scope of and ambit of his employment and performs an act that occasions injury and/or damage to a third party will be personally liable for such an act.

iii. Duties of and Agent

1. Duty to obey lawful instructions.
2. Duty to account.
3. Duty to exercise reasonable care.
4. Duty not to delegate.
5. Duty not to take bribe.
6. Duty not to make secrete profit.

SOLUTION FOUR

(a)

(i) The difference between sale by sample and sale by description is that;

Sale by description

A sale by description is understood to be a sale where words are used to identify the goods sold. According to the Sales of goods Act, where there is a contract for the sale of goods by description there is an implied condition that the goods shall correspond with the description; and if the sale be sample as well as by description, it is not sufficient that the bulk of the goods corresponds with the sample if the goods do not also correspond with the description.

Sale by sample

Section 15, describes sale by sample as, a contract of sale by sample where there is a term in the contract, express or implied to the effect, and in the case of a contract for sale by sample; there is an implied condition that the bulk shall correspond with the sample in quality; there is an implied condition that the buyer shall have a reasonable opportunity of comparing the bulk with the sample; there is an implied condition that goods shall be free from any defect, rendering them unmerchantable, which would not be apparent on reasonable examination of the sample.

In contrast therefore, in a sale by description the buyer does not see the goods before he buys them, he only describes them by word of mouth, whereas in sale by sample, the buyer has had an opportunity to see the goods, and the sample is included in the contract expressly or impliedly.

The difference can still be given without reference to the Sale of Goods Act. Students should not be penalised for not citing the Act or for not writing a lot, once the difference is given, the student should be marked correct.

(ii) The relationship between Mutale and Abyud is created by agency i.e. Principal/agent relationship. A Principal can appoint an agent to act on his behalf. An agent is one who negotiates and concludes commercial or business transaction on behalf of

another called the principal. Like in this case, Mutale being the principal appointed Abyud as the agent.

(b)

(i) Consent

The defence of consent is normally used in the law of tort when accidents strikes. Assumption of risk as it is sometimes known, is a complete defence to an action in tort. Consent may arise either from an express agreement to run the risk of injury or may be implied from the plaintiff's conduct. An example of express agreement is where a patient signs a consent form before an operation. If this formality was not carried out, the surgeon could be sued for trespass to the person (battery). Implied consent is often referred to as *volenti non fit injuria* (no harm is done to one who is willing).

In the case of Kawilo and Kabova, the company must prove that the 2 not only had **full knowledge** of the risk but also freely **consented** to run the risk.

In this case, Kawilo and Kabova had the knowledge of the danger but they did not consent to run the risk.

(6 marks)

(ii) Contributory negligence

This defence arises where a person suffers damage as the result partly of his own fault and partly of the fault of any other person or persons. If contributory negligence applies, a claim in respect of that damage shall not be defeated by reason of the fault of the person suffering the damage. However, the damages shall be reduced to such an extent as the court thinks is just and equitable having regard to the plaintiff's share of the responsibility for the damage.

Statutory or common law justification

A person may have a good defence to an action in tort if he can show that his acts are covered by statutory authority. For example, the Criminal Procedure Code Chapter 88 of the Laws of Zambia sets out police powers of arrest, entry and search. If these powers are exercised lawfully, the Act will provide a good defence to an action in tort. Self defence and chastisement of a child by a parent are both defences to the tort of trespass to the person, provided the force used is reasonable.

Necessity

If a person commits a tort but only from preventing a greater harm from occurring, he may be able to raise the defence of necessity. The defendant must be able to show that there is an imminent threat of the danger to person or property and that his actions were a reasonable response to the circumstances.

Illegality

It is a general principle of law that a person will not be able to maintain a cause of action if he has to rely on conduct which is illegal or contrary to public policy.

QUESTION FIVE

- (a) (i) Public / Private Law – the law that generally governs relations between states and the relations between citizens and their state.
- (ii) International/ Domestic Law – the law that regulates the relationship between States, so it is sometimes referred to as the law of the nations. Domestic Law is the Law of a particular state, such as its statutes and customs, which has no legal force outside its national boundaries. It is the Law applicable only to the domestic jurisdiction. This Law is sometimes referred to as municipal law.
- (iii) Criminal / Civil law – Criminal law governs the relationship between the state and its citizens: a citizen who commits a criminal act offends the state, representing the whole of Society. The law is strictly written under penal statutes, for example the Penal Code Chapter 87 of the Laws of Zambia. Civil law regulates the interactions between citizens in society only. Examples of acts which are actionable under the civil law are breach of contract, defamation, malicious prosecution and being a nuisance to others.
- (iv) Unwritten/ Written law- Unwritten laws are the laws that have not been codified in writing and only exist as principles in the minds of citizens. Some of the English law is still codified, though much of common law is codified in English Statutes, law books and Court decisions. In Zambia the written Law is found in Acts of parliament, court judgements and law reports. Zambian customary Law is the country's unwritten law.
- (b) The stages a bill goes through in parliament before it becomes law are called readings. These readings are as follows:

First reading – the first reading of a bill is when a Minister or member presenting the bill introduces it to the entire house (Parliament). The

presenter simply reads out the title of the bill and there are no debates on the bill at this stage by the members.

Second reading - The bill is then debated in detail under the second reading. The presenter of the bill gives details of what the bill is all about and what it intends to do. Members of the house then debate the bill, either supporting or opposing it. They indicate what changes or additions they would like to make to the bill.

Committee stage – The committee stage is when the bill is considered either by the committee of the whole house or a specialised committee of a few members. The committee examines the bill in detail, clause by clause. Members are free to make amendments to the bill. The purpose of this stage is to perfect the bill in terms of content, purpose, language and punctuation to ensure that the ideas contained therein are properly expressed. Here you find technocrats or experts who look into the bill in detail.

Report Stage – The committee stage that considered the bill reports back to the whole house on the work done on the bill. Members are free to make further amendments during the report stage of the bill. This, stage becomes noticeable in the process only if the bill has been amended at the Committee stage. If the bill has not been amended at committee stage, the report stage is by passed.

Third reading – From the committee or report stage, as appropriate, the bill is then read to the house. This is the final stage that the bill is looked at in the house. If the house is satisfied that the bill has been properly dealt with, it is sent to the next stage.

Presidential assent or veto – After the bill is passed by the house, it is presented to the President for assent pursuant to Article 66. If the President assents the bill, he or she signs the bill and it becomes law immediately or at a later date depending on what the bill itself states. A signed bill is called an Act of Parliament. If the President withholds assent or vetoes the bill, it has to be sent back to parliament with recommendations.

- Where the President passes the bill with amendments, the speaker submits the bill to the President for assent within seven days: the president must sign the bill within seven days of receipt.
- Where Parliament fails to pass the bill, in accordance with clause (2) (b), the bill shall not be presented to parliament again in that session.

If the president does not assent to the bill within the period prescribed in clauses (1) and (4), the bill shall be considered assented to upon the expiry of those periods.

- (c) (1) The Literal rule
 (2) Golden rule
 (3) Mischief rule

SOLUTION SIX

(a) Company secretary

Important in the management of the business of a company is the company secretary. Every company must appoint a secretary. The secretary could be an individual or a body corporate, that is a company or corporation. The position of secretary must be occupied by an individual resident, or a company incorporated, in Zambia, and may be occupied by two or more persons who act jointly as the secretary of the company.

WHILE:

A company's business is managed by its directors. In executing these duties, directors are required to comply with the statutory provisions, common law rules and other regulations that affect their office in order to avoid being in conflict or their actions being rendered unethical. Both statutory law and the common law make provision for the rules that govern directors in the performance of their duties in order to adhere to corporate governance and ethical issues. Directors must observe good faith towards shareholders.

(b)

Authorised share capital this is the total amount of share capital which the company may issue. This total must be divided into shares of a fixed amount (which is termed the nominal or par value of the shares). A company need not issue shares to the full extent of its authorised share capital. On the other hand, if the whole of the amount called up by the company has been paid by shareholders, this figure is termed paid up capital. If that is not so, the called up capital is divided into 'paid up capital' and 'unpaid capital'.

(c)

A resolution is a formal way in which a company can note decisions that are made at a meeting of company members. Resolutions include ordinary, extraordinary and special.

While:

A meeting is an event in which a group of people come together to discuss things or make decisions. The procedure of a meeting of the company depends on the type of meeting being held. It may be a meeting of all the shareholders or of a class of shareholders. Some meetings are mandatory while others are left to the discretion of the company and they may be regulated by the decree or the articles or both. These are Annual general meetings, Extraordinary general meetings and Class meetings.

(c) A person who does an act with reference to the formation of a company or in aid of its organization whether he has the intention to be a partners or not is a promoter. No statutory definition of promoter is given in English company law; definition is given in case law. ... The fiduciary duty is owed to the company.

END OF SUGGESTED SOLUTION



CHARTERED ACCOUNTANT ZAMBIA

APPLICATION LEVEL

CA 2.4: TAXATION

MARCH 2020

TOTAL MARKS – 100 TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

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6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. A Taxation table is provided from page 2 to page 6 of the question paper.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

Taxation Table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K39,600	first K39,600	0%
K39,601 to 49,200	next K9,600	25%
K49,201 to K74,400	next K25,200	30%
Over K74,400		37.5%

Income from farming for individuals

K1 to K39,600	first K39,600	0%
Over K39,600		10%

Company Income Tax rates

On income from manufacturing and other	35%
On income from farming	10%
On income of Banks and other Financial Institutions	35%
On income from mineral processing	30%
On income from mining operations	30%
On income from manufacture of products made out of copper cathodes	15%

Mineral Royalty

Mineral Royalty on Copper

Range of Norm Price

Less than US\$4,500	5.5% of norm value
From US\$4,500 to less than US\$6,000	6.5% of norm value
From US\$6,000 to less than US\$7,500	7.5% of norm value
From US\$7,500 to less than US\$9,000	8.5% of norm value
From US\$9,000 and above	10% of norm value

Mineral Royalty Rate

Mineral Royalty on other minerals

Type of mineral

Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Cobalt and Vanadium	8% of norm value
Energy and Industrial Minerals	5% of gross value
Gemstones	6% of gross value
Precious Metals	6% of norm value

Mineral Royalty Rate

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Standard wear and tear allowance	25%
	Used in manufacturing and leasing	50%
	Used in farming and agro-processing	100%

Non- commercial vehicles

Wear and Tear Allowance	20%
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Industrial Buildings:

Wear and Tear Allowance	5%
Initial Allowance	10%
Investment Allowance	10%

Low Cost Housing (Cost up to K20,000)

Wear and Tear Allowance	10%
Initial Allowance	10%

Commercial Buildings

Wear and Tear Allowance	2%
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Farming Allowances

Development Allowance	10%
Farm Works Allowance	100%
Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax	4%
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Presumptive Tax for Transporters

Seating capacity	Tax per annum	Tax per day
	K	K
From 64 passengers and over	10,800	29.55
From 50 to 63 passengers	9,000	24.60
From 36 to 49 passengers	7,200	19.50
From 22 to 35 passengers	5,400	15.00
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.95
Less than 12 passengers and taxis	900	2.40

Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares	5%
Rate of tax on the realized value on the transfer of intellectual property	5%
Rate of Tax on Realised Value on a transfer or sale of a mining right	10%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged less than 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver	Customs duty	Excise duty	Customs duty	Excise duty
	K	K	K	K
Sitting capacity of 10 but not exceeding 14	17,778	22,223	8,889	11,112

persons including the driver				
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	Aged less than 5 years		Aged 5 years and over	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	Customs duty	Excise duty	Customs duty	Excise duty
	K	K	K	K
Sedans				
cylinder capacity not exceeding 1000 cc	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc but not exceeding 2500 cc	22,561	29,329	18,049	23,463
SUVs				
Cylinder capacity not exceeding 2500 cc	21,057	27,374	9,024	11,732
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	24,065	31,284	13,357	17,598
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463
	Aged less than 5 years		Aged 5 years and over	
Motor vehicles for the transport of goods -with compression-ignition internal combustion piston engine (diesel or semi-diesel):	Customs duty	Excise duty	Customs duty	Excise duty
	K	K	K	K

Single cab

GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	21,926	9,501	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	26,311	11,402	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	30,697	13,302	17,541	7,601
Double cabs GVW exceeding 3 tonnes but not exceeding 5 tonnes	30,274	0	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, with spark ignition internal combustion piston engine	30,697	13,302	24,119	10,452

Panel Vans

GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	15,348	6,651	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	17,541	7,601	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	21,926	9,501	17,541	7,601

Trucks

GVW up to 2 tonnes	21,926	9,501	10,963	4,751
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	28,504	12,352	13,156	5,701
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	10,817	8,293
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes	51,898	0	19,461	0
GVW exceeding 20 tonnes, with spark ignition internal combustion piston engine	37,086	28,432	13,907	10,662

Surtax

On all motor vehicles aged more than five (5) years from year of manufacture

K2,000

Customs and Excise on New Motor vehicles**Duty rates on:**

1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:

Customs Duty:

Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Cylinder capacity of 1500 cc and less	20%

	Cylinder Capacity of more than 1500 cc	30%
2.	Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:	
	Customs Duty	
	Percentage of Value for Duty Purposes	15%
	Minimum specific Customs Duty	K6,000
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	10%
3.	Buses/coaches for the transport of more than ten persons	
	Customs Duty:	
	Percentage of Value for Duty Purposes	15%
	Minimum Specific Customs Duty	K6,000
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	
	Seating Capacity of 16 persons and less	25%
	Seating Capacity of 16 persons and more	0%
4.	Trucks/lorries with gross weight exceeding 20 tonnes	
	Customs Duty:	
	Percentage of Value for Duty Purposes	15%
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A – THIS QUESTION IS COMPULSORY AND MUST BE ATTEMPTED

QUESTION ONE

Kazoka and Mazoka commenced in business as partners on 1 January 2019. They agreed to share profits and losses in the ratio 3:1 respectively after allowing for partnership salaries of K280,000 per annum each. The partnership accounts are to be prepared annually to 31 December. Kazoka and Mazoka have heard that they will be required to each submit a return of provisional income tax and a self-assessment return in respect of the tax year 2019, but do not know what these returns are.

On 1 April 2019, a new partner Haabazoka was admitted to the partnership and with effect from that date, the partnership agreement was changed. Profits and losses and partners' annual salaries were to be provided for as shown below:

	Kazoka	Mazoka	Haabazoka
Salaries per annum	K360,000	K300,000	240,000
Profit sharing ratio for balance of profits and losses	5:	2:	1

The partnership's statement of profit or loss for the year ended 31 December 2019 was as follows:

	Note	K	K
Gross profit			3,923,900
Add other income:			
Discount received			<u>1,500</u>
			3,925,400
Less expenses:			
Depreciation		87,600	
Wages and salaries	(1)	3,307,000	
Legal and professional expenses	(2)	67,100	
Gifts and donations	(3)	44,000	
Miscellaneous expenses	(4)	62,500	
Motor car running expenses	(5)	<u>80,000</u>	
			<u>(3,648,200)</u>
Net profit			<u><u>277,200</u></u>

Notes

(1) Wages and salaries

Wages and salaries include employees' wages of K2,220,000, loans to employees of K250,000 written off, employees golf club subscriptions of K22,000 and partner's salaries amounting to K815,000.

(2) **Legal and Professional expenses**

These include legal fees in connection with the renewal of lease on business premises of K15,000, legal fees in connection with making changes to the partnership agreement of K10,500, legal fees in connection with drafting employees service contracts K15,600 and fees of K26,000 for personal tax planning advice for the partners.

(3) **Gifts and donations**

These comprises donations to political parties of K8,000, donations to approved public benefit organisations of K18,000, gifts of T-shirts to suppliers (costing K250 each and displaying the partnerships logo) totalling K6,000 and gifts of clocks to customer (costing K150 each and displaying partnerships name) totalling K12,000.

(4) **Miscellaneous expenses**

Fines for breach of labour laws amounting to K5,500, partner's traffic fines incurred whilst conducting the partnership business of K3,700, advertising expenses of K27,000, general increase in provision of bad debts of K5,600, increase in specific provisions of bad debts of K16,200 and loss on disposal of office equipment of K4,500.

(5) **Motor car running expenses**

Kazoka and Mazoka use their own private motor cars in the partnership business. 30% of the motor car running expenses shown in the statement of profit or loss above, relate to Kazoka's car, 20% relate to Mazoka's whilst the remaining 50% of the expenses relate to the delivery van used wholly and exclusively for business purposes.

Kazoka owns a Ford Ranger van (double cab) which he acquired at a cost of K360,000 in January 2019. His private use of the Ford Ranger van is 60%. Mazoka owns a Nissan Navara Van (double cab) which he acquired at a cost of K340,000 in February 2019. His private use of the Nissan Navara van is 75%.

(6) **Implements, plant and machinery and other assets**

At 1 January 2019, the only other assets qualifying for capital allowances was office equipment with an Income Tax Value of K30,000 (and an original cost of K60,000) and a delivery van with an Income Tax Value of K35,000 (and original cost of K70,000).

The office equipment was sold for K20,000 during the tax year resulting in the loss on disposal included within miscellaneous expenses in the statement of profit or loss.

(7) **Other information**

Before joining the partnership Haabazoka had been employed as a Marketing Manager at a Zambian resident company for many years. He was declared redundant

on 31 March 2019. In the tax year 2019, he was entitled to an annual basic salary of K380,000 and he was also entitled to a housing allowance of 15% of his basic salary. The company paid for electricity bills of K2,400 per month and property maintenance expenses of K1,400 per month relating to his living accommodation.

In January 2019, the company provided him with a new year shopping voucher valued at K6,000. In March 2019, the company reimbursed him K25,000 he incurred on the medical treatment of his sick daughter.

On being declared redundant on 31 March 2019, he additionally received accrued leave pay amounting to K50,000, repatriation pay of K210,000, severance pay of K140,000 and pension of K250,000. Half of the pension was employee's pension refunds and the remaining half was employer's pension refunds. Pay As You Earn of K195,768 was deducted from her emoluments in the tax year 2019.

Throughout his employment, his employer had always deducted NAPSA contributions of 5% of his basic salary as employee's contributions and the company had always contributed 5% of his basic salary as employer's NAPSA contributions on his behalf. In January 2019, he paid his annual professional subscriptions to the Institute of Marketing of K1,850.

- (8) Kazoka and Mazoka did not have any other income in the tax year 2019.

Required:

- (a) Explain the differences between the return of provisional income tax and the self-assessment return and state the dates when Kazoka and Mazoka will be required to submit each of these returns in respect of the tax year 2019. (4 marks)
- (b) Calculate the partnership's tax adjusted business profit for the year ended 31 December 2019, before division between the partners. (11 marks)
- (c) Calculate the amount of business profits on which each partner will be assessed for the year ended 31 December 2019. (11 marks)
- (d) Compute the final Income Tax payable by Kazoka, Mazoka and Haabazoka for the tax year 2019. (14 marks)

[Total: 40 Marks]

SECTION B – ATTEMPT ANY THREE (3) QUESTIONS OUT OF FOUR (4)

QUESTION TWO

GX Ltd, a Zambian resident manufacturing company prepares accounts annually to 31 December. For the year ended 31 December 2019, the company's estimated taxable trading profit figure was K350,000, while the actual final taxable trading profit figure was K970,000.

In the tax year 2019, the company received bank interest of K10,000. This is the gross amount. Withholding tax had been deducted at source. The estimated taxable trading profit figure does not include bank interest or any non-trading income.

The company paid provisional income tax based on the estimated profits on the appropriate due dates. The self-assessment income tax return in respect of the tax year 2019, was submitted on 31 July 2020.

Other information

The Finance Director of GX Ltd offers part-time lecturers in taxation at a private professional college which is situated near GX Ltd. He is preparing some notes on the importance of professional ethics and source of ethical guidance for professional accountants for use during his Saturday morning class.

Required:

- (a) For the tax year 2019, calculate the provisional Company Income Tax already paid by GX Ltd, showing clearly the due dates when the tax was paid, and the amount paid on each due date. (5 marks)
- (b) Calculate the final amount of company income tax payable by GX Ltd for the tax year 2019. (3 marks)
- (c) Calculate the amount of penalties and interest arising on the late submission of the self-assessment income tax return in respect of the tax year 2019 and on the underpayment of the total provisional income tax. (5 marks)
- (d) Outline two advantages of making provisional income tax payments. (2 marks)
- (e) Explain briefly the issues that the Finance Director of GX Ltd should include in his notes for the taxation class, on the importance of professional ethics and the source of ethical guidance for professional accountants. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Kairos Limited is a company based in Chongwe district. It has been in operation for many years. The company is engaged in retail, manufacturing and farming operations. The following information is available in respect of the tax year 2019:

Retail operations

The company owns a van which is used for retail operations in the district. The van was purchased three years ago at a cost of K90,000.

For the year ended 31 December 2019, the **gross profit** from retail trading **before deducting any operating expenses** was K1,648,000.

The operating expenses incurred during the year ended 31 December 2019, included the following:

- (1) Motoring expenses of K77,000. The cost of fuel accounts for 25% of the motoring expenses. Only 30% of the cost of fuel was incurred for business purposes. The rest of the motoring expenses were incurred for private purposes by employees using the motor van.
- (2) Parking fines for the company motor van incurred by the Retail Manager of K10,500, incurred whilst conducting company business.
- (3) Depreciation on capital assets amounting to K41,000.
- (4) Salary of the Retail Manager. The company employed the Retail Manager on 1 June 2019 to improve its operations, at an annual salary of K60,000, payable to him monthly on the last day of each month.
- (5) Miscellaneous allowable business expenses amounting to K27,000.

Manufacturing operations

Kairos Limited manufactures foodstuffs. The **tax adjusted profit** from manufacturing **before deducting capital allowances** was K979,000.

The company owns a building which was constructed in the year 2010 at a cost of K450,000. The factory was brought into use on 1 June 2010 for business purposes.

The total cost of constructing the building of K450,000 comprised the following:

	K
Cost of land	69,000
Factory	200,000
Showroom	70,000
Staff canteen	<u>111,000</u>
Total	<u>450,000</u>

During the year ended 31 December 2019, an extension was added to this factory at a cost of K160,000 (including the cost of land K60,000).

Farming operations

For the year ended 31 December 2019 Kairos Limited generated a profit from farming operations before capital allowances of K1,890,000. During the year, the company incurred expenditure of K54,000 on construction of a house for an employee at the farm, K270,000 on the growing of rose flowers and K78,000 to purchase a tractor. On 1 January 2019 there was a tax adjusted loss of K114,360 from farming operations, brought forward from the tax year 2014 when it was incurred. Capital allowances on other farm implements, plant and machinery amounted to K200,000.

Provisional income tax paid in respect of the tax year 2019, was K845,000.

Required:

(a) Compute the final taxable profit for the tax year 2019 from:

- | | | |
|-------|--------------------------|-----------|
| (i) | Retail operations | (4 marks) |
| (ii) | Manufacturing operations | (8 marks) |
| (iii) | Farming operations | (4 marks) |

(b) Prepare a computation of the final amount of income tax payable by Kairos Limited for tax year 2019. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

You are employed in a firm of Chartered Accountants. Your firm is dealing with the tax affairs of Matimba Ltd, a VAT registered trading company. You are helping the company in preparing the VAT return for the month of May 2019. The directors have heard that a business can account for VAT using the Cash Accounting Scheme and are keen to know whether Matimba Ltd can register to account for VAT under the cash accounting scheme.

You have been provided with the following information relating to the month of May 2019.

- (1) Sales invoices totaling K2,750,000 were issued to customers out of which exempt sales were K550,000 and zero rated sales were K320,000 with the remainder of the sales being standard rated.

Out of the standard rated sales, goods with a value of K350,000 were sold on sale or return basis. These goods were dispatched to the customer on 30 May 2019, however the customer only paid for the goods on 2 June 2019, although he adopted the sale when he received goods.

- (2) Total Sales returns for the month were K280,000 comprising returns on standard rated sales of K170,000, returns on exempt sales of K30,000 and returns on zero rated sales of K80,000.

- (3) The company received an advance deposit of K85,000 in respect of a standard rated contract that is due for completion in July 2019. The contract has a total value of K150,000.
- (4) Standard rated purchases were K980,000 and the purchase returns on these purchase amounted to K83,000.
- (5) Standard rated expenses amounted to K179,800 (VAT inclusive) broken down as follows:

	K
Entertaining customers	34,800
Staff meals and refreshments	37,120
Petrol for company cars	46,400
Diesel for motor vans	40,600
Telephone bills	<u>20,880</u>
	<u>179,800</u>

- (6) The company wrote off a bad debt amounting to K26,000 during the month of May 2019, in respect of a debt which was due for payment on 31 October 2018.
- (7) The company bought the following capital assets at the following VAT inclusive costs:
- | | K |
|------------------|---------|
| Pool motor car | 174,000 |
| Delivery van | 139,200 |
| Air conditioners | 69,600 |
- (8) All the above figures are VAT exclusive unless stated otherwise.

Required:

- (a) Describe the operation of the Cash Accounting Scheme and explain whether Matimba Ltd can register to account for VAT using the cash accounting scheme. (3 marks)
- (b) Explain any TWO advantages and any TWO disadvantages of accounting for VAT under the cash accounting scheme. (4 marks)
- (c) Compute the amount of VAT payable for the month of May 2019. (10 marks)
- (d) State the due date for the payment of the VAT you have computed in (c) above and explain the consequences for the company of paying the VAT late. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

Mulenga, a Zambian resident, who has been running a retail business, preparing accounts to 31 January each year, ceased to trade on 30 September 2019. After preparing accounts for the year ended 31 January 2018, she prepared her last accounts for a period of twenty months ended 30 September 2019. Recent tax adjusted profits before capital allowances have been as follows:

	K
Year ended 31.01.2018	87,500
Period ended 30.09.2019	154,000

The only asset held by the business qualifying for capital allowances was a motor van which Mulenga acquired in the tax year 2016 at a cost of K40,000. On the date of cessation of her business, she sold her motor van for K42,000.

On 1 August 2019, Mulenga commenced employment as a pharmacist with MK Pharmacy Limited in Lusaka. Her basic salary was agreed at K96,000 per annum. She was also entitled to the following benefits:

- (1) Electricity expenses of K1,000 per month for her residence were to be paid on her behalf by her employer.
- (2) A monthly non-cash voucher to be exchanged for K500 worth of goods from Shoprite stores.
- (3) A re-imbursement of travelling expenses incurred out of town while on official duty. In the tax year 2019 she spent on average of K4,550 per month of her own money, but she was entitled to a re-imbursement of K5,000 per month which was paid to her.
- (4) Lunch provided at the MK Pharmacy employee cafeteria. The cost to the company of providing lunch was estimated at K900 per month per employee.
- (5) MK Pharmacy paid K2,500 towards Mulenga's son's tuition fees. The fees were paid to Zaga College of Education on 31 October 2019.
- (6) A computer with an original cost of K5,950 was provided to Mulenga for both business and private use on 1 August 2019.

Mulenga contributed 5% of her salary as NAPSA contributions per month, during the year ended 31 December 2019.

Other income

Mulenga's other income for the tax year 2019, included management consultancy fees amounting to K1,700, rental income amounting to K6,000 and income from disposal of shares amounting K18,000.

Both consultancy fees and the rental income were the actual amounts received by Mulenga, withholding tax was deducted at the relevant rates at source.

The income from disposal of shares arose from the sale of 1,000 shares Mulenga held in KKZ Plc for gross proceeds of K18,000. These shares had a market value of K20 each on the

date of sale. KKZ Plc is a Zambian resident company that is listed on the Lusaka Securities Exchange.

Required:

- (a) Explain the tax treatment of the rental income and income from the disposal of shares received by Mulenga in the tax year 2019. (4 marks)
- (b) Explain the basis of assessment for the profits made in the final year of trading and compute the final taxable profits for each relevant tax year. (6 marks)
- (c) Calculate the income tax payable by Mulenga for the tax year 2019. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA2.4 SUGGESTED SOLUTIONS

SOLUTION ONE

- (a) Return of provisional income tax

- (1) The return of provisional income tax is completed by a tax payer at the start of a tax year.
- (2) The return contains an estimate of the taxable income for the tax year to which the return relates as well as an estimate of income tax on that taxable income. This tax computed on the estimated income is known as provisional income tax.
- (3) The return of provisional income tax should be submitted to the Commissioner General not later than **31 March** in the tax year to which it relates. In this case Kazoka and Mazoka should have submitted their returns by 31 March 2019;
- (4) In the case of a person who registers for income tax after 31 March of any charge year the due date for filing a provisional return shall be 90 days from the date of registration for income tax.

Self-Assessment Return

- (1) The self-assessment return is filled in at the end of the tax year.
- (2) This return must contain the actual amounts of income received from all the sources and a computation of income tax payable thereon.
- (3) It also shows any balance of income tax payable after deducting the taxes already paid including the provisional income tax during the tax year.

- (4) The self-assessment income tax return must be submitted to the Commissioner General by 21 June following the end of the tax year to which the return relates. In the case Kazoka and Mazoka they should submit their returns by 21 June 2020;

(b) PARTNERSHIP'S TAX ADJUSTED PROFIT FOR THE YEAR ENDED 31 DECEMBER 2019

	K	K
Net profits per accounts		277,200
<i>Add:</i>		
Depreciation	87,600	
Partner's salaries	815,000	
Loans to employees written off	250,000	
Personal tax planning advise	26,000	
Gift of T-Shirts to suppliers	6,000	
Gifts of clocks to customers	12,000	
Donations to political parties	8,000	
Fines for breach of labour laws	5,500	
Partners fines	3,700	
General increase in bad debts	5,600	
Loss on disposal of equipment	4,500	
Motor car running expenses		
- Kazoka's car (30% x K80,000 x 60%)	14,400	
- Mazoka's car (K20% x K80,000 x 75%)	<u>12,000</u>	
		<u>1,250,300</u>
		1,527,500
Less:		
Capital allowances on:		-
- Office equipment (K30,000 – K20,000)	10,000	
- Delivery van (K70,000 x 25%)	<u>17,500</u>	
		<u>(27,500)</u>
Profit to be shared by partners		<u><u>1,500,000</u></u>

(c) KAZOKA, MAZOKA AND HAABAZOKA
DIVISION OF PARTNERSHIP PROFIT FOR THE YEAR ENDED 31 DECEMBER 2019

	<i>Total</i> K	<i>Kazoka</i> K	<i>Mazoka</i> K	<i>Haabazoka</i> K
1.1.19 to 31.03.19				
Salaries	140,000	70,000	70,000	Nil

Balance (3:1)	<u>235,000</u>	<u>176,250</u>	<u>58,750</u>	<u>Nil</u>
	<u>375,000</u>	<u>246,250</u>	<u>128,750</u>	<u>Nil</u>
1.04.19 to 31.12.19				
Salaries	675,000	270,000	225,000	180,000
Balance (5:2:1)	<u>450,000</u>	<u>281,250</u>	<u>112,500</u>	<u>56,250</u>
	<u>1,125,000</u>	<u>551,250</u>	<u>337,500</u>	<u>236,250</u>
Total profit	1,500,000	797,500	466,250	236,250
<i>Less Capital allowances:</i>				
Kazoka's Ford Ranger				-
(K360,000 x 20%) x 40%		(28,800)		
Mazoka's Nissan Navara				
(K340,000 x 20%) x 25%			(17,000)	
		<u>768,700</u>	<u>499,200</u>	<u>236,250</u>

(d) COMPUTATION OF INCOME TAX PAYABLE BY

	Kazoka K	Mazoka K	Haabazoka K	
Business profits	768,700	499,200	236,250	
Employment income	<u>Nil</u>	<u>Nil</u>	<u>174,800</u>	(W)
	<u>768,700</u>	<u>499,200</u>	<u>411,050</u>	
K39,600 x 0%	0	0	0	
K9,600 x 25%	2,400	2,400	2,400	
K25,200 x 30%	7,560	7,560	7,560	
K694,300/K424,800/K366,650 x 37.5%	<u>260,363</u>	<u>159,300</u>	<u>126,244</u>	
Less:				
PAYE	-	-	(195,768)	
Income tax payable	<u>270,323</u>	<u>169,260</u>	<u>(59,564)</u>	

COMPUTATION OF HAABAZOKA'S TAXABLE EMOLUMENTS

	K
Salary (K380,000 x 3/12)	95,000
Housing allowance (K95,000 x 15%)	14,250
Electricity bills (K1,200 x 3)	7,200
Property maintenance (K1,400 x 3)	4,200
New year voucher	6,000
Accrued leave pay	<u>50,000</u>
Total income	176,650
Less allowable deductions	
Less professional subscriptions	<u>(1,850)</u>
Taxable emoluments	<u>174,800</u>

SOLUTION TWO

- (a) COMPUTATION OF PROVISIONAL INCOME TAX PAID BY GX LTD IN THE TAX YEAR 2019

This tax will have been paid in four installments as follows

Installment	For Quarter ended	Due Date	Amount paid K
1st	31 st March 2019	10 April 2019	30,625
2nd	30 th June 2019	10 July 2019	30,625
3rd	30 th September 2019	10 October 2019	30,625
4th	31 st December 2019	10 January 2020	<u>30,625</u>
			<u>122,500</u>

WORKINGS:

(1) Provisional tax already paid $35\% \times K350,000 = K122,500$

(2) Provisional income tax paid per quarter:

$$K122,500/4 = K30,625$$

- (b) GX LTD
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2019.

	K
Profits	970,000
Bank Interest received	<u>10,000</u>
Company taxable income	<u>980,000</u>
Company income tax (980,000 X 35%)	343,000
Less: Tax already paid:	
Withholding tax $15\% \times 10,000$	(1500)
Provisional income tax	<u>(122,500)</u>
Company income tax payable	<u>219,000</u>

- (c) GX Ltd was supposed to submit the self-assessment income tax return by 21 June 2020. The self-assessment income tax return was submitted late on 31 July 2020. It was submitted 40 days late (i.e. 1 month and 9 days late)

A penalty of 2000 units (K600) per month will be payable by GX Ltd to ZRA.
i.e $2000 \text{ units (K600)} \times 2 = 4000 \text{ units (K1,200)}$.

Furthermore, the amount of provisional income tax paid of K122,500 was less than the actual total income tax paid liability (K343,000) by at least one third.

The underpaid income tax is therefore $K343,000 - 122,500 = K220,500$.

The penalty payable to ZRA is $10\% \times K220,500 = K22,050$.

- (d) Two advantages of the provisional tax system are:
- (1) There is inflow of revenue to the government throughout the year.
 - (2) The burden on the part of the taxpayer is reduced as the huge amount of tax will not be payable at once at the end of the charge year.
- (e) Professional codes of ethics for the accountancy profession are designed to guide the individual behavior of professional accountants.

The main source of ethical guidance for the accounting profession is the International Ethics Standards Board of Accountants (IESBA) a body of IFAC.

The IESBA explains that the main reason why accountants require such an ethical code is because they hold positions of trust, and people rely on them and their expertise.

The IESBA states that the distinguishing mark of the accountancy profession is its acceptance of the responsibility to act in the public interest. The public interest is considered to be the collective wellbeing of the community of people and institutions the professional accountant serves, including clients, lenders, governments, employers, employees, investors, the business and financial community and others who rely on the work of professional accountants. Therefore a professional accountant's responsibility is not exclusively to satisfy the needs of an individual client or employer.

SOLUTION THREE

- (a) (i) KAIROS LIMITED
COMPUTATION OF FINAL TAXABLE PROFIT FROM RETAIL OPERATIONS

	K	K
Gross profit from retail trading		1,648,000
Less:		
Motoring expenses	77,000	
Miscellaneous allowable expenses	27,000	
Capital allowances on van		
(K90000 x 25%)	22,500	
Salary for retail manager		
(K60,000 X 7/12)	<u>35,000</u>	
		<u>(161,500)</u>
Taxable profit from retail trading		<u>1,486,500</u>

- (ii) KAIROS LIMITED
COMPUTATION OF FINAL TAXABLE PROFIT FROM MANUFACTURING OPERATIONS

	K
Profit before capital allowances	979,000
Less capital allowances (W)	<u>(41,950)</u>
Taxable profit from manufacturing	<u>937,050</u>

WORKINGS

Total Cost	450,000
Less: cost of land	<u>(69,000)</u>
Total construction cost	<u>381,000</u>
10% x K381,000	<u>K38,100</u>

The Showroom does not qualify as an industrial building as K70,000 is more than 10% of the construction cost excluding the cost of land.

The qualifying cost for IBAs purposes is therefore:

Total construction cost	381,000
Less: cost of showroom	<u>(70,000)</u>
Qualifying cost	<u>311,000</u>

KAIRO LIMITED
COMPUTATIONS OF CAPITAL ALLOWANCES ON BUILDINGS FOR THE TAX
YEAR 2019

<u>Original Factory</u>	K
Wear and tear allowance (Factory K200,000 x 5%)	10,000
<u>Staff canteen</u>	
Wear and tear allowance (5% x K111,000)	5,550
<u>Factory Extension</u>	
Qualifying cost (K160,000 - K60,000=K100,000)	
Initial allowance 10% x K100,000	10,000
Investment allowance 10% x K100,000	10,000
Wear and tear allowance 5% x K100,000	5,000
<u>Showroom</u>	
Wear and tear allowance 2% x K70,000	<u>1,400</u>
Total capital allowances	<u>41,950</u>

(iii) KAIROS LIMITED
COMPUTATION OF FINAL TAXABLE PROFIT FROM FARMING FOR THE YEAR
ENDED 31ST DECEMBER 2019

	K	K
Taxable profit before capital allowances		1,890,000
Less: Capital allowances:		
Dwelling house (Restricted to K20,000)	20,000	
Tractor (K78,000 x 100%)	78,000	
Rose flowers plantation (10% x K270,000)	27,000	
Other capital allowances	<u>200,000</u>	
		<u>(325,000)</u>
Taxable profit before loss relief		1,565,000
Less: Loss relief b/f		<u>(114,360)</u>
Final Taxable profit from farming		<u>1,450,640</u>

(b) KAIROS LIMITED

COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

<u>Non-farming income</u>	K
Taxable profit from retail trading	1,486,500
Taxable profit from manufacturing	<u>937,050</u>
Total taxable income	2,423,550
Farming income	<u>1,450,640</u>
Total taxable income	<u>3,874,190</u>
Company Income tax on non-farming income	
35% x 2,423,050	848,243
Company income tax on farming income	
10% x 1450,640	<u>145,064</u>
	993,307
Less: provisional tax	<u>(845,000)</u>
Final company income tax payable	<u>148,307</u>

SOLUTION FOUR

- (a) Under the Cash Accounting Scheme, VAT is accounted for on the basis of the receipts and payments of cash. As such, the tax point for the cash accounting scheme is the time when payment is made. VAT payments and recoveries are dealt with in the return for the tax period in which cash is paid and received.

This scheme is only available to members of the Association of Building and Civil Engineering Contractors (ABCEC). Therefore, Matimba Ltd being a trading company cannot register under the scheme.

- (b) Advantages and Disadvantages of the Cash Accounting Scheme

The advantages of the cash accounting scheme are:

- (1) VAT is only payable if the customers have made payments.
- (2) It is easy to prepare the VAT return as the cash book can be used to do so.
- (3) Bad debt relief occurs automatically since no VAT is payable if the customers have not made payments.

Disadvantages of the cash accounting Scheme are:

- (1) Input VAT cannot be reclaimed until payment has been made to the suppliers. This means that input VAT credit will be delayed if payments are not made early enough to the suppliers.
- (2) The scheme is not open to all kinds of traders and therefore small scale traders in sectors other than members of the ABCEC cannot benefit from it.

- (c) COMPUTATION OF VAT PAYABLE

<u>Output VAT</u>	<u>K</u>	<u>K</u>
Standard rated sales		
(K2,750,000 – K550,000 – K320,000) x 16%		300,800
Less sales returns (K170,000 x 16%)		(27,200)
Advance deposit (K85,000 x 16%)		13,600
Zero rated sales (K320,000 - K80,000) x 0%		<u>0</u>
		287,200
<u>Input VAT</u>		
Purchases (K980,000 x 16%)	156,800	
Purchases returns (K83,000 x 16%)	(13,280)	
Diesel (K40,600 x 4/29) x 90%	5,040	
Delivery van (K139,200 x 4/29)	<u>19,200</u>	
		(167,760)
		<u>119,440</u>

- (d) The due date is 18 June 2019
If the VAT is paid late then a daily penalty will arise which will be determined as the 0.5% of the amount of VAT payable.

Additionally, interest will be charged on overdue tax at the Bank of Zambia discount rate plus 2%.

SOLUTION FIVE

(a) **Rental income**

Income from the letting of property is generally assessed in the tax year in which it accrues to the tax payer, which is 2019 in Mulenga's case. Rental income is received net of 10% withholding tax which represents the final tax liability. This means that no further income tax shall be assessed on Mulenga in respect of the income from the letting of property.

Rental income is subjected to withholding tax of 10% on the gross rental income before deducting any expenses incurred in connection with the letting of property. No relief for any losses that may arise in relation to the letting of property is given.

Disposal of shares

Property transfer tax is chargeable on any person who transfers property to another person. Chargeable property includes shares in a private company. However shares in a listed company do not constitute chargeable property.

Mulenga's sale of her shares held in KKZ Plc, being a listed company, will therefore not be subjected to PTT as the shares are exempted.

(b) **Basis of assessment**

- (1) Since the final period of account is made up of twenty months to 30 September 2019, the period will be split into two notional accounting periods for tax purposes. This will result in a twelve months period ending on 31 January 2019 and an eight months period, starting on 1 February 2019 and ending on 30 September 2019.
- (2) Profits, as adjusted for taxation purposes but before capital allowances will then be apportioned on a time basis to these two periods; The year ended 31 January 2019 will be the basis period for the tax year 2018. The eight month period to 30 September 2019 is the basis period for the tax year 2019.

The final taxable profits for the tax years 2018 and 2019 will be computed as follows:

Tax year	Basis period	Profits before capital allowances K	Capital allowances K	Final taxable profit K
2018	01.02.2018- 31.01.2019			

	(K154,000 x 12/20)	92,400	(10,000) (W)	K82,400
2019	1.02.2019 – 30.09.2019			
	(K154,000 x 8/20)	61,600	30,000 (W)	K91,600

WORKINGS

CAPITAL ALLOWANCES FOR THE TAX YEAR 2018

<u>Motor Van</u>	K
Wear and tear allowance (25% x K40,000)	<u>10,000</u>

CAPITAL ALLOWANCES FOR THE TAX YEAR 2019

<u>Motor van</u>	K
Cost	40,000
Less total capital allownaces (K40,000 x 25%) x 3	<u>(30,000)</u>
Income tax value b/f at 1.02.2019	10,000
Disposal proceeds (Limited to original cost)	<u>(40,000)</u>
Balancing charge	<u>(30,000)</u>

(c) MULENGA

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K	K
<u>Earned income</u>		
Business profits (b)		91,600
Emoluments from employment		
Salary K96,000 x 5/12	40,000	
Electricity K1000 x 5	5,000	
Non – cash voucher K500 x 5	2,500	
Re-imbursement of travel expenses (K5,000 – K4,550) x 5	2,250	
Mulenga's son tuition fees	<u>2,500</u>	
		<u>52,250</u>
Total earned income		143,850
<u>Investment income</u>		
Management consultancy fees (K1,700 x 100/85)		<u>2,000</u>
Taxable income		<u>145,850</u>
<u>Income Tax</u>		
On first K39,600 x 0%		0
On next K9,600 x 25%		2,400
On next K25,200 x 30%		7,560
On excess K71,450 x 37.5%		<u>26,794</u>
		36,754
Less		

WHT paid on management consultancy fees (K2,000 x 15%)	<u>(300)</u>
Income tax payable	<u>36,454</u>

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 16 MARCH 2020

TOTAL MARKS: 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:
Section A: One (1) compulsory scenario question.
Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. Present Value and Annuity tables are attached at the end of this paper.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

The following are the draft statements of profit or loss and other comprehensive incomes of Maate Plc, Saale Plc and Volta Plc for the year ended 31 May 2020.

	Maate Plc	Saale Plc	Volta Plc
	K'000	K'000	\$'000
Revenue	6,490.00	4 130.00	304.00
Cost of sales	<u>(2,431.00)</u>	<u>(1,547.00)</u>	<u>(113.00)</u>
Gross profit	4 059.00	2 583.00	191.00
Other income	110.00	-	-
Distribution cost	(1,831.00)	(1,165.00)	(85.00)
Administrative cost	(1,457.00)	(927.00)	(68.00)
Finance cost	<u>(247.00)</u>	<u>(157.00)</u>	<u>(11.00)</u>
Profit before tax	634.00	334.00	26.99
Taxation	<u>(158.00)</u>	<u>(84.00)</u>	<u>(6.00)</u>
Profit for the period	476.00	250.00	21.00
Other comprehensive income			
Revaluation loss	<u>(16.00)</u>	-	-
Total comprehensive Income	<u>460.00</u>	<u>250.00</u>	<u>21.00</u>

The following information is relevant in the preparation of group accounts.

1. Maate Plc acquired 25% of Saale Plc's equity shares on 1 June 2017 for a cash consideration of K89,250. On 1 March 2020 Maate Plc increased its equity shareholding in Saale Plc to 60% for a cash consideration of K124,950 when the fair value of Saale Plc's identifiable net assets stood at K205,000. On the same date, other components of equity and retained earnings were K31,000 and K18,000 respectively. The excess in fair value relates to an item of plant. The plant had an economic useful life of three (3) years on 1 March 2020.
2. Maate Plc acquired 90% of Volta Plc's equity shares on 1 June 2019 for a cash consideration of \$253,000 when the fair value of Volta's identifiable net assets stood at \$270,000. On the same date, other components of equity and retained were \$45,000 and \$26,000 respectively. The excess in fair value relates to non-depreciable land.

3. Saale Plc and Volta Plc have had issued equity share capital of K150,000 and \$195,000 respectively since their respective acquisitions by Maate Plc. Further, fair value adjustments referred to in (1) and (2) above have not been incorporated in the above statements of statements of profit or loss and other comprehensive income.
4. Investments in Saale Plc and Volta Plc were classified as financial assets through other comprehensive income in accordance with IFRS 9 '*Financial instruments*'. The investments are shown in the financial statements of Maate Plc at cost. This is because changes in their respective fair values were insignificant.
5. Goodwill in Saale Plc and Volta Plc has not been impaired since their respective acquisitions by Maate Plc.
6. It is group policy to value non-controlling interests using proportion of net assets method.
7. The following exchange rates are relevant:

Date	ZMK to \$1
1 June 2019	9.6000
31 May 2020	9.8000
Average rate for year to 31 May 2020	9.7000

The accountant of Saale Plc suggested to the group accountant not to change the group accounting policy regarding recognition of leases to reflect the requirements of IFRS 16 '*Leases*'. Doing so would increase Maate Plc's indebtedness and hinder the company from renewing its overdraft facility. It would also make the company acquire a risky investment status and reduced credit rating. This would lead to an increase in the cost of borrowing for the company to about double the current average cost.

Required:

- (a) Prepare the consolidated statement of profit or loss and other comprehensive income of Maate Plc group for the year ended 31 May 2020. (32 marks)
- (b) Evaluate any ethical and professional issues arising from suggestions by the accountant of Saate Plc. (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

- (a) The difference between debt and equity in an entity's statement of financial position is not easily distinguishable for preparers of financial statements. Some financial instruments may have both features, which can lead to inconsistency of reporting. The International Accounting Standards Board (IASB) has agreed that greater clarity may be required in its definitions of assets and liabilities for debt instruments. It is thought that defining the nature of liabilities would help the IASB's thinking on the difference between financial instruments classified as equity and liabilities.

On 24 July 2014, the IASB issued the final version of IFRS 9 Financial Instruments. One of the matters addressed in IFRS 9 – *Financial Instruments* is the initial and subsequent measurement of financial assets. The way financial assets and financial liabilities are accounted for in the financial statements depends on their classification. IFRS 9 requires that financial assets are initially measured at their fair value at the date of initial recognition. However, subsequent measurement of financial assets depends on their classification for which IFRS 9 identifies three possible alternatives.

Required:

- (i) Discuss the key classification differences between debt and equity under International Financial Reporting Standards. (5 marks)
- (ii) Explain why it is important for entities to understand the impact of the classification of a financial instrument as debt or equity in the financial statements. (5 marks)
- (iii) Explain the three classifications which IFRS 9 identifies for financial assets and the basis of measurement which is appropriate for each classification. You should also identify any exceptions to the normal classifications which may apply in specific circumstances. (6 marks)
- (b) On 1 October 2019, ZAMBANK made a three-year loan of K20 million to entity ABC. The rate of interest payable on the loan was 8% per annum, payable in arrears. On 30 September 2022, ZAMBANK will receive a fixed number of shares in entity ABC in full settlement of the loan. Entity ABC paid the interest due of K1, 600,000 on 30 September 2020 and entity ABC has no liquidity problems. Following payment of this interest, the fair value of this loan asset at 30 September 2020 was estimated to be K21 million.

Required:

Explain and show how the above transactions would be reported in the financial statements of ZAMBANK for the year ended 30 September 2020. (4 marks)

[Total: 20 Marks]

QUESTION THREE

You are a financial consultant of the Zambia Institute of Chartered Accountants (ZICA) who conducts workshops and talks on various topics on International Financial Reporting Standards, Non-financial reporting and various tax matters. On 15 July 2020 you are going to have a presentation during the 'Accountants' Forum', on **Non-financial reports** that may be found accompanying the financial statements in the annual report. Many users of these non-financial reports have wondered, the main objective, key features and importance of including such reports to accompany the financial statements. The Copperbelt Forum will be held at Savoy Hotel in Ndola and the Region Manager North, would like to look at your presentation tomorrow before it can be delivered at the forum.

Required:

Prepare a discussion paper on each of the following Non-financial reports:

- | | | |
|-----|-------------------------------------|-----------|
| (a) | Management commentary | (5 marks) |
| (b) | Sustainability reporting | (5 marks) |
| (c) | Integrated reporting | (5 marks) |
| (d) | Environmental and social reporting. | (5 marks) |

[Total: 20 Marks]

QUESTION FOUR

- (a) **IFRS 16 *Leases* was issued by the International Accounting Standards Board (IASB) on 13 January 2016 and has a mandatory effective date of 1 January 2019.** Early application is permitted for companies that also apply IFRS 15 *Revenue from Contracts with Customers*.

Leasing provides an important and flexible source of financing for many businesses. However, the old lease accounting Standard (IAS 17 *Leases*) makes it difficult for investors and others to compare and get an accurate picture of a company's leased assets and liabilities. Leases are classified currently under IAS 17, *Leases*, as finance or operating leases at inception, depending on whether substantially all the risks and rewards of ownership transfer to the lessee. Under a finance lease, the lessee has substantially all of the risks and reward of ownership.

The new standard sets out the principles (for the recognition, measurement, presentation and disclosure of leases) that both parties to a contract, ie the customer ('lessee') and the supplier ('lessor'), apply to provide relevant information about leases in a manner that faithfully represents those transactions. To meet this objective, a lessee is required to recognise assets and liabilities arising from a lease. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17.

Required:

Explain the accounting treatment of leases under IFRS 16 leases in the financial statements of the lessor. (5 marks)

- (b) IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* contains guidance on the use of accounting policies and accounting estimates.

Required:

Explain the basis on which the management of an entity must select its accounting policies and distinguish, with an example, between changes in accounting policies and changes in accounting estimates. (5 marks)

- (c) IFRS 2: "Share-based Payment", defines a share-based payment transaction as one in which an entity receives goods or services from a third party (including an employee) in a share-based payment arrangement. IFRS 2 further defines a share-based payment arrangement as an agreement between an entity and a third party which entitles the third party to receive either:

- Equity instruments of the entity (equity-settled share-based payments); or
- Cash or other assets based on the price of equity instruments of the entity (cash-settled share-based payments).

Share-based payment arrangements are often subject to vesting conditions which must be satisfied over a vesting period.

ZAMSHARE granted share options to its 600 employees on 1 October 2017. Each employee will receive 500 share options provided they continue to work for ZAMSHARE for four years from the grant date. The fair value of each option at the grant date was K1.48.

The actual and expected staff movement over the 4 years to 30 September 2021 is given below:

2018 20 employees left and another 50 were expected to leave over the next three years.

2019 A further 25 employees left and another 40 were expected to leave over the next two years.

2020 A further 15 employees left and another 20 were expected to leave the following year.

2021 No actual figures are available to date.

The Marketing director of ZAMSHARE has stated in the board minutes that he disagrees with the treatment of the share options. No cash has been paid out to employees, therefore he fails to understand why an expense is being charged against profits.

Required:

- (i) Calculate the charge to the income statement for the year ended 30 September 2020 for ZAMSHARE in respect of the share options and prepare the journal entry to record this. (6 marks)
- (ii) Explain the principles of recognition and measurement for share-based payments as set out in IFRS 2 *Share-based Payments* so as to address the concerns of the Marketing director. (4 marks)

[Total 20 marks]

QUESTION FIVE

Inambao Plc Group is a large group of companies that has grown mainly through acquisitions. The group is currently evaluating two potential acquisition targets, Pondapo Ltd and Dyakapo Ltd. Extracts from the two companies' financial statements have been obtained as follows:

Statements of Profit or Loss and Other Comprehensive Incomes for the Year Ended 31 December 2020:

	Pondapo K'000	Dyakapo K'000
Revenue	68,000	66,000
Cost of Sales	(42,000)	(45,950)
Gross Profit	26,000	20,050
Other Operating Expenses	(18,000)	(14,000)
Operating Profit	8,000	6,050
Finance Costs	(3,000)	(4,000)
Profit Before Tax	5,000	2,050
Income Tax Expense	(1,500)	(1,000)
Profit for the Year	3,500	1,050
Other Comprehensive Items that are not reclassified in Profit or Loss:		
Revaluation of properties	-	6,000
Other comprehensive Income for the Year	-	6,000
Total Comprehensive Income for the Year	3,500	7,050

Statements of Financial Position as At 31 December 2020

	Pondapo K'000	Dyakapo K'000
ASSETS		
Non current		
Tangible	32,000	35,050
Current		
Inventory	6,000	7,000
Trade Receivables	12,000	18,000

Total Assets		50,000		52,050
EQUITY AND LIABILITIES				
Equity				
Share Capital (K1 shares)		16,000		12,000
Revaluation Reserve		-		5,000
Retained Earnings		7,500		5,050
Total Equity		23,500		22,050
Non Current Liabilities				
Long Term Borrowings		16,000		18,000
Current Liabilities				
Trade Payables	5,000		5,000	
Income Tax	1,500		1,000	
Short Term Borrowings	4,000		6,000	
		10,500		12,000
Total Equity and Liabilities		50,000		52,050

Additional notes:

1. Pandapo Ltd and Dyakapo Ltd paid dividends during the year to 31 December 2020 of K2 million and K1 million respectively.
2. On 31 December 2020, Pondapo Ltd supplied goods to a third party entity for cash amounting K2.4 million at a usual profit mark up of 60%. The contract requires that Pondapo must repurchase the goods from the third party on 30 June 2021 at a price of K2.5 million. Pandapo Ltd has accounted for the transaction as a sale.
3. Dyakapo Ltd revalued its non-current assets for the first time on 1 January 2020. Dyakapo Ltd's non-current assets are similar to those of Pondapo Ltd in terms of their nature and age. Pondapo Ltd does not revalue its non-current assets. Both entities charge the depreciation expense in cost of sales. Dyakapo Ltd makes a transfer of realised revaluation gains to the retained earnings.

Inambao Plc group uses ratio analysis to evaluate potential acquisition targets. The normal practice is to appraise four key ratios: Return on Capital Employed (ROCE), Gross Profit Margin, Asset Turnover and Gearing (Interest bearing liabilities, both current and non-current, as a percentage of Capital Employed). Capital Employed is taken to include both current and non-current interest bearing liabilities.

The following ratios have been computed based on the figures in the above financial statements:

	Pondapo Ltd	Dyakapo Ltd
ROCE	18.4%	13.1%
Gross Profit Margin	38.2%	30.4%
Asset Turnover	1.6	1.4
Gearing	46.0%	52.1%

Required:

Prepare a financial analysis report that:

- (a) Explains and computes the adjustments that would be required in respect of the notes in the scenario so that the financial analysis of Pondapo Ltd and Dyakapo Ltd is on a comparable basis. (7 marks)
- (b) Recalculates the four key ratios for each entity and makes a recommendation of which company appears to be a better target for acquisition. (7 marks)
- (c) Contrast your results in (b) above with the analysis based on the ratios computed using the figures as presented in the financial statements. (6 marks)

[Total: 20 Marks]

END OF PAPER

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

		Discount rate (r)									
Periods											
(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	2
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	4
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	5
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	6
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	7
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	8
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	9
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	10
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	11
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	12
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103	13
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367	14
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	2
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	3
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	4
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	5
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	6
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	7
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	8
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	9
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	10
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327	11
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	12
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	13
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	14
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	15

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate

n = number of periods until payment

		<i>Discount rate (r)</i>									
<i>Periods</i>		1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
(n)											
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

CA3.1 SUGGESTED SOLUTIONS

SOLUTION ONE

a) Maate Plc Group

Consolidated statement of profit or loss and other comprehensive income for the year ended 31 May 2018

	K'000
Revenue $6,490 + (4,130 \times 3/12) + (304 \times 9.7)$	10,471.34
Cost of sales $2,431 + (1,547 \times 3/12) + (113 \times 9.7) + 0.5W1$	(3,913.33)
Gross profit	6,558.01
Other income	110.00
Distribution cost $1,831 + (1,165 \times 3/12) + (85 \times 9.7)$	(2,946.80)
Administrative cost $1,457 + (927 \times 3/12) + (68 \times 9.7)$	(2,348.34)
Finance cost $247 + (157 \times 3/12) + (11 \times 9.7)$	(392.93)
share of associate profit $(25\% \times (250 \times 9/12))$	46.88
Profit before tax	1,026.82
Taxation $158 + (84 \times 3/12) + (6 \times 9.7)$	(237.19)
Profit for the period	789.63
Other comprehensive income	
Net exchange differences W2	58.10
Revaluation loss	(16.00)
Total comprehensive Income	831.73
Profit for the period attributable to:	
Equity holders of parent (bal. fig)	744.46
Non-controlling interest $(24.8 + 20.37)W3$	45.17
	789.63
Total comprehensive income attributable to:	
Equity holders of parent (bal. fig)	780.95
Non-controlling interest $(24.8 + 25.98)W3$	50.78
	831.73

b) Ethical and professional issues

The IASB Conceptual Framework states that 'the objective of general purpose financial reporting is to provide information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity'. Further, accounting standards are developed and revised in order to make the financial statements more useful to their users. Companies listed on the stock exchange are required to prepare their financial statements in accordance with applicable international accounting standards, international financial reporting standards and other generally accepted standards.

IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors' requires compliance with any specific IFRS applying to a transaction, event or condition, and provides guidance on developing accounting policies for other items that result in relevant and reliable information. However, the group accountant is allowed to use judgement where a transaction, event or condition is not adequately covered by accounting standards or where he feels that full compliance to a particular accounting standard will make the financial statements so misleading that it would conflict with the objective of financial statements set out in the Framework. However, this is not the case with IFR16 'Lease'. The standard specifies how an entity will recognise, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. This is what the group accountant should have in mind when coming up with the accounting policies for the group. The group accountant should not formulate accounting policies in order to manipulate financial statements to reflect what they want users to see but rather to present a true and fair position of the group. Therefore, not changing the accounting policy would result in misleading financial statements to their users and would be against professional accountants' code of ethics.

WORKINGS

W1

		K'000
Fair value of net assets acquired		205
Book value of net assets acquired:		
Equity shares	150.00	
Other components of equity	31.00	
Retained earnings	18.00	(199)
Fair Value Gain		6
Excess depreciation of fair value adjustment:		
(6 x 1/3yrs) x 0.25yrs	0.50	

W2 Total exchange difference

	K'000	
Net assets at 31 May 2020 (270+21)@ 9.8	2,851.80	1
Net assets at 1 June 2019 (270 @ 9.6)	2,592.00	1
	259.80	
Less: Retained profit for the year (21@ 9.7)	203.70	1
	56.10	
Exchange difference on goodwill W1	2.00	2.5

Total	58.10	
	\$'000	\$'000
Nama Plc		
Cost of investment		253.00
Non - controlling interest at acquisition (10% x 270)		27.00
Fair value of net assets acquired:		
Equity shares	195.00	
Other components of equity	45.00	
Retained earnings	26.00	
Fair value adjustment (bal. figure)	4.00	
Fair value of net assets acquired		270.00
Goodwill		10.00
Translated @ rate at acquisition (10 x 9.6)		96.00
Exchange differences (bal. fig)		2.00
Translated @ rate at reporting rate (10 x 9.8)		98.00

W3 Non - controlling interests

	K'000	
Saale Plc		
Share of post acquisition in:		
Profit for the period ((250 x 3/12)-0.5W1) x 40%	24.80	2
Total comprehensive income	24.80	0.5
Volta Plc		
Share of post acquisition in:		
Profit for the period (203.7W2 x 10%)	20.37	1
Total comprehensive income 20.37 + (56.1W2 x 10%)	25.98	1.5

SOLUTION TWO

(i) IAS 32 *Financial Instruments: Presentation* establishes principles for presenting financial instruments as liabilities or equity. To determine whether a financial instrument should be classified as debt or equity, IAS 32 uses principles-based definitions of a financial liability and of equity. In contrast to the requirements of generally accepted accounting practice in many jurisdictions around the world, IAS 32 does not classify a financial instrument as equity or financial liability on the basis of its legal form. The key feature of debt is that the issuer is obliged to deliver either cash or another financial asset to the holder. The contractual obligation may arise from a requirement to repay principal or interest or dividends.

Such a contractual obligation may be established explicitly or indirectly through the terms of the agreement. For example, a bond which requires the issuer to make interest payments and redeem the bond for cash is classified as debt. In contrast, equity is any contract which evidences a residual interest in the entity's assets after deducting all of its liabilities. A financial instrument is an equity instrument only if the instrument includes no contractual obligation to deliver cash or another financial asset to another entity and if the instrument will or may be settled in the issuer's own equity instruments. For example, ordinary shares, where all the payments are at the discretion of the issuer, are classified as equity of the issuer. The classification is not quite as simple as it seems. For example, preference shares required to

be converted into a fixed number of ordinary shares on a fixed date or on the occurrence of an event which is certain to occur, should be classified as equity.

A contract is not an equity instrument solely because it may result in the receipt or delivery of the entity's own equity instruments. The classification of this type of contract is dependent on whether there is variability in either the number of equity shares delivered or variability in the amount of cash or financial assets received. A contract which will be settled by the entity receiving or delivering a fixed number of its own equity instruments in exchange for a fixed amount of cash or another financial asset is an equity instrument. However, if there is any variability in the amount of cash or own equity instruments which will be delivered or received, then such a contract is a financial asset or liability as applicable.

For example, where a contract requires the entity to deliver as many of the entity's own equity instruments as are equal in value to a certain amount of cash, the holder of the contract would be indifferent whether it received cash or shares to the value of that amount. Thus this contract would be treated as debt.

Other factors, which may result in an instrument being classified as debt, are:

- redemption is at the option of the instrument holder
- there is a limited life to the instrument
- redemption is triggered by a future uncertain event which is beyond the control of both the holder and issuer of the instrument.
- dividends are non-discretionary

Similarly, other factors, which may result in the instrument being classified as equity, are whether the shares are non-redeemable, whether there is no liquidation date or where the dividends are discretionary.

(ii) The classification of a financial instrument by the issuer as either debt or equity can have a significant impact on the entity's gearing ratio, reported earnings, and debt covenants. Equity classification can avoid such impact but may be perceived negatively if it is seen as diluting existing equity interests. The distinction between debt and equity is also relevant where an entity issues financial instruments to raise funds to settle a business combination

using cash or as part consideration in a business combination. Understanding the nature of the classification rules and potential effects is critical for management and must be borne in mind when evaluating alternative financing options. Liability classification normally results in any payments being treated as interest and charged to profit or loss, which may affect the entity's ability to pay dividends on its equity shares.

(iii) The classification and measurement of debt instrument financial assets is largely based on: The business model for managing the asset, specifically whether or not the objective is to hold the financial asset in order to collect the contractual cash flows. Whether or not the contractual cash flows are solely payments of principal and interest on the principal amount outstanding. Where the business model for managing the asset is to hold the financial asset in order to collect the contractual cash flows and the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, then the financial asset is normally measured at amortised cost.

Where the business model for managing the asset is to both hold the financial asset in order to collect the contractual cash flows and to sell the financial asset and the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, then the financial asset is normally measured at fair value through other comprehensive income. Interest income on such assets is recognised in the same way as if the asset were measured at amortised cost. In other circumstances, financial assets are normally measured at fair value through profit or loss. Notwithstanding the above, where equity investments are not held for trading, an entity may make an irrevocable election to measure such investments at fair value through other comprehensive income.

Finally an entity may, at initial recognition, irrevocably designate a financial asset as measured at fair value through profit or loss if to do so eliminates or significantly reduces an accounting mismatch.

(iv) Since the loan is at normal commercial rates, the loan would initially be recognised at K20 million, the amount advanced. The interest received and receivable of K1, 600,000 would be credited to profit or loss as finance income.

In this case, the contractual cash flows are not solely payments of principal and interest on the principal amount outstanding. Therefore the asset would be measured at fair value through profit or loss. A fair value gain of K1, 000,000 (K21 million – K20 million) would be recognised in profit or loss. The loan asset of K21 million would be shown as a non-current asset.

SOLUTION THREE

(a) Management commentary

In December 2010, the IASB issued an IFRS Practice Statement *Management Commentary*, which is the international equivalent of the UK's Operating and Financial Review.

Management commentary provides management's view of the entity's performance, the reasons, and the implications. The purpose of the commentary is to provide a context for interpreting a company's **financial position, performance and cash flows**. The principles and objectives of a Management Commentary (MC) are as follows:

- (i) To provide **management's view** of the entity's performance, position and progress;
- (ii) To **supplement and complement** information presented in the financial statements;
- (iii) To include **forward-looking information**; and
- (iv) To include information that possesses the **qualitative characteristics** described in the *Conceptual Framework*.

The Practice Statement says that to meet the objective of management commentary, an entity should include information that is essential to an understanding of:

- (i) The **nature of the business**
- (ii) Management's **objectives and its strategies** for meeting those objectives
- (iii) The entity's most significant **resources, risks and relationships**
- (iv) The **results** of operations and **prospects**
- (v) The critical **performance measures and indicators** that management uses to evaluate the entity's performance against stated objectives.

The arguments for a mandatory MC are largely to do with content and comparability. It is argued that a mandatory MC will make it easier for companies themselves to judge what is required in such a report and the required standard of reporting, thereby making such reports more **robust, transparent and comparable**.

If an MC is not mandatory then there may be **uncertainty** as to content and the possibility of **misinformation**. There is also the risk that without a mandatory MC Directors may take a **minimalist approach** to disclosure which will make the MC less useful and the information to be disclosed will be in hands of senior executives and directors.

However, the **arguments against** a mandatory MC are that it could **stifle the development of the MC as a tool** for communication and may lead to a **checklist approach** to producing it. It is argued that a mandatory MC is not required as market forces and the needs of investors should lead to companies feeling the pressure to provide a useful and reliable report. The IASB decided to issue a Practice Statement rather than an IFRS and to leave it to regulators to decide who would be required to publish a management commentary. This approach avoids the **adoption hurdle**, ie that the perceived cost of applying IFRSs might increase, which could otherwise dissuade jurisdictions/countries not having adopted IFRSs from requiring its adoption, especially where requirements differ significantly from existing national requirements.

(b) Sustainability reporting

A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. A sustainability report also presents the organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global

economy. It details actions and policies towards helping future generations meet their needs.

Sustainability reporting can help organizations to measure, understand and communicate their economic, environmental, and social and governance performance, and then set goals, and manage change more effectively. A sustainability report is the key platform communicating sustainability performance and impacts, whether positive or negative.

Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources.

Here are some of the advantages of corporate sustainability reports:

1. Enhances company image and reputation.
2. Attracts and retains employees. Employees tend to be happier working with companies that take care of them, and give them the opportunities to give back to, and volunteer in, their local communities. Such happy employees stay longer, and attract other people that are likeminded and want to work for such organisation.
3. Increases understanding of risks and opportunities for sustainability projects. Similar to a swot analysis in marketing, a report, because it is so detailed and tied in with overall company goals.
4. Engages stakeholders.

Demerits (Cons)

Most of the cons with sustainability reporting revolve around how the report is actually created and presented. There appears to be no downside to creating a report, unless it is not done well. The following are some of the mistakes that a company can make when creating its reports:

1. Weak goals. Having weak goals for the report, for sustainability policies in general, and for the organisation as a whole is a portion for disaster. The report must be built around strong organisational goals.
2. Mismanaged data. To present results accurately in the report, the data collection and presentation must be efficient, accurate and meaningful.
3. Disordered priorities. A good company will prioritise sustainability in the reports by weighing it equally to financial, environmental and societal performance – the Triple Bottom Line – instead of just focusing on financial performance.
4. Discounting feedback. Listen to clients and stakeholders when they provide advice, data verification, or comments on the report.
5. Breaking the rules. The report should follow good guidelines for sustainability reporting, such as those set by the aforementioned Global Reporting Initiative.

(c) Integrated reporting

Integrated reporting is concerned with conveying a wider message on organisational performance. It is fundamentally concerned with reporting on the value created by the organisation's resources. Resources are referred to as 'capitals', value is created or lost

when capitals interact with one another. It is intended that integrated reporting should lead to a holistic view when assessing organisational performance.

Wider performance appraisal

It is not solely centred on profit and the company's financial position but aims to focus on how the organisations activities interact to create value over the short, medium and long term. It is thought that by producing a holistic view of organisational performance that this will lead to improved management decision making as business decisions are not taken in isolation.

Value creation

In the context of integrated reporting an organisation's resources are referred to as 'capitals'. The International Integrated Reporting Council have identified six capitals which can be used to assess value creation. Increases or decreases in these capitals indicate the level of value created or lost over a period.

Capitals cover various types of resources found in a standard organisation. These may include financial capitals, such as the entity's financial reserves, through to its intellectual capital which is concerned with intellectual property and staff knowledge.

Performance evaluation of the six capitals is central to integrated reporting. Throughout time these capitals continually interact with one another, an increase in one may lead to a decrease in another. A decision to purchase a new IT system would improve an entity's 'manufactured' capital while decreasing its financial capital. By contrast the decision to purchase a patent for a new production technology would increase intellectual capital and may also boost financial capital if it reduces costs and increases output. It is important to note that due to the voluntary nature of integrated reporting, organisations are free to report only on those 'capitals' felt to be most relevant.

Short term v long term

In many ways, integrated reporting forces management to balance its short term objectives against its longer term plans. Business decisions which are solely dedicated to the pursuit of increasing profit (financial capital) at the expense of building good relations with key stakeholders such as customers (social capital) are likely to hinder value creation in the longer term.

Performance measures

Integrated reporting is not aimed at attaching a monetary value to every aspect of the organisation's operations. It is fundamentally concerned with evaluating value creation, and uses qualitative and quantitative performance measures to help stakeholders assess how well an organisation is creating value.

The use of KPIs to convey performance is an effective way of reporting. For example when providing detail on customer satisfaction, this can be communicated as the number of customers retained compared to the previous year. Best practice in integrated reporting requires organisations to report on both positive and negative movements in 'capital'. This ensures the entity's performance is fully communicated and not just those favourable movements. Stakeholders are likely to be as interested (if not more so) in understanding what an organisation has not done well as opposed to only considering the entity's achievements. Integrated reporting ensures that a balanced view of performance is presented.

Materiality

When preparing an integrated report, management should disclose matters which are likely to impact on an organisation's ability to create value. Internal weaknesses and external threats regarded as being materially important are evaluated and quantified. This provides users with an indication of how management intend to combat such instances should they materialise.

(D) Environmental and Social reporting

The aim of environmental reporting is the **disclosure** of an organisation's corporate environmental responsibilities and the **effects** of its activities on its environment. It's becoming **increasingly popular** for entities to **disclose** in their financial statements exactly how they are **protecting** the environment.

The aim of social reporting is to measure and disclose the **social impact** of a business' activities: Examples of **social measures** include:

- Philanthropic /Charitable/Humanitarian donations,
- employee satisfaction levels and remuneration issues,
- community support, and
- stakeholder consultation information.

Environmental reporting is the **disclosure of information about the effects of an entity's operations** on the **natural environment**. This normally includes a **description of the ways** in which the entity has tried to **minimise the adverse effects of its activities**, for example actions that it has taken to **recycle materials** and to **clean up pollution**. Many large public companies produce **separate** environmental reports, others **include** environmental disclosures in the **main annual report**.

Entities are required to disclose information about **environmental provisions and contingencies** in the notes to the financial statements (**IAS 37 Provisions, Contingent Liabilities and Contingent Assets**). Apart from this, in **most countries including the Zambia**, environmental reporting is completely **voluntary** and it is not **specifically required by any IAS**. In **practice** companies can disclose **whatever information they wish** and need **not disclose any information at all**. However, in many countries voluntary disclosure is increasingly encouraged and there are now several sets of guidelines setting out **best practice** in this area.

There are two main reasons for the growing interest in environmental reporting. The first is a reflection of increasing **public consciousness of 'green' issues**. Most large public companies recognise that their annual report is a public relations document and that there are significant advantages in presenting themselves as **environmentally conscious**. The second reason is that, while financial reporting is normally directed towards meeting the needs of investors and their advisers, there is an increasing awareness that the annual report may be used by a **wide range of 'stakeholders'** and that therefore it should contain information that **meets all their needs**.

Benefits of environmental and social reporting

Companies which voluntarily publish environmental and social reports have identified the following **benefits**:

(a) It demonstrates **consistency** of **overall management strategy** to important **external stakeholders**.

- (b) It strengthens **stakeholder relations**.
- (c) It increases **competitive advantages** (the 'first mover' effect).
- (d) Public **recognition for corporate accountability** and responsibility.
- (e) Target setting and external reporting drives continual environmental and social improvement.
- (f) Effective **self-regulation minimises risk of regulatory intervention**.
- (g) It may improve access to lists of '**preferred suppliers**' of buyers with green procurement policies.
- (h) It reduces **corporate risk, which may reduce financing** costs and broaden the range of investors.
- (i) It enhances **employee morale**.
- (j) **Improved profitability**.
- (K) Enhance the **reputation in the minds of the public**.

Current reporting requirements/ IFRS requirements

Under IFRS there are **no required disclosure** requirements for environmental and social matters and any disclosure is therefore **voluntary**, it is frequently seen as **socially responsible**. If we consider that "**greater transparency leads to more meaningful financial statements**", then the **disclosure** of environmental information comes down to a **matter of common sense**.

SOLUTION FOUR

Accounting by lessors

IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently. Lessors shall classify each lease as an operating lease or a finance lease.

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. Otherwise a lease is classified as an operating lease. Upon lease commencement, a lessor shall recognise assets held under a finance lease as a receivable at an amount equal to the net investment in the lease.

A lessor recognises finance income over the lease term of a finance lease, based on a pattern reflecting a constant periodic rate of return on the net investment.

A lessor recognises operating lease payments as income on a straight-line basis or, if more representative of the pattern in which benefit from use of the underlying asset is diminished, another systematic basis.

(b)

AS 8 *Accounting policies, changes in accounting estimates and errors* requires an entity to determine the accounting policy to apply to a transaction or event by reference to any IFRS specifically applying to that transaction or event. Where there is no specific IFRS applicable, management is expected to **use its judgement** in applying an accounting policy which will result in information which is relevant and reliable.

In this they should consider the requirements and guidance in IFRSs dealing with similar and related issues and also the *Conceptual Framework* definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses.

Accounting policies are the specific principles, bases and rules applied in measuring and presenting financial information. **Changes of accounting policy are not very common.** One example would be a change from the FIFO method of valuing inventory to the weighted average method – this is a change in the basis of valuation.

A **change of accounting estimate** is a change in the way in which these principles and bases are applied which leads to an adjustment to any of the elements identified by the *Conceptual Framework* – assets, liabilities, income or expenses. One example would be a change from the straight line method of depreciation to the reducing balance method. In this case the accounting policy is that non-current assets are carried at cost less accumulated depreciation, the accounting estimate is how that depreciation is calculated.

(c)

(i) 2020 equity balance required:

$(600 - 20 - 25 - 15 - 20) = 520$ employees eligible

Total expected equivalent value = $520 \times 500 \text{ options} \times K1.48 = K384,800$

$K384,800 \times 3/4 \text{ years} = K288,600$

Previously recognised to 30 September 2019:

$(600 - 20 - 25 - 40) = 515$ employees eligible

$515 \text{ employees} \times 500 \text{ options} \times K1.48 = K381,100$

$K381,100 \times 2/4 \text{ years} = K190,550$

Amount to be recognised in the income statement in 2020 = K98,050 (K288,600 – K190,550)

Recorded in 2017 financial statements:

Dr Income statement – staff costs K98,050

Cr Equity – other reserves K98,050

(ii) The marketing director is incorrect, despite no cash changing hands, the share options are issued in exchange for employees providing services to ZAMSHARE. Possibly the options have been given as a reward for service provided or in lieu of a pay rise or bonus which would otherwise have been paid in cash. As there is no direct wage cost, we instead must calculate an equivalent cost of receiving staff services and match this with the revenue that the staff helps to generate. We do this by estimating the value inherent in the options and allocating that over the period in which employees must remain with ZAMSHARE, in this case 4 years.

The amount chargeable to the income statement is based on the fair value of the share options at the grant date. This is not subsequently remeasured as these share options represent an equity-settled share-based payment. The equivalent cost will be updated each year for those employees that are still eligible or expected to be eligible at the year end to ensure that the amount charged reflects the amount that is expected to vest.

SOLUTION FIVE

Appendix to the report

1. Calculation of required adjustments to the given amounts in Note 1

Pondapo

Item	Original Amount	Adjustment	New Amount
	K'000	K'000	K'000
Revenue	68,000	(2,400)	65,600
Cost of sales	26,000	(900)	25,100
PBIT	8,000	(900)	7,100
Inventory	6,000	1,500	7,500
Short Borrowing	4000	2,400	6,400
Total Brrowings	20,000	2,400	22,400
Equity	23,500	(900)	22,600

Dyakapo

Item	Original Amount	Adjustment	New Amount
	K'000	K'000	K'000
NCA	35,050	(5,000)	30,050
Reval Reserve	5,000	(5,000)	0
Cost of sales	45,950	(1,000)	44,950
Gross Profit	20,050	1,000	21, 050
PBIT	6,050	1,000	7,050
Equity	22,050	(5,000)	17,050

2. Recalculated of the Key ratios:

Ratio	Pondapo	Dyakapo
ROCE	15.8%	17.2%
GP margin	38.3%	31.9%
Asset Turnover	1.5 Times	1.6 Times
Gearing	49.8%	58.5%

Report

To : Directors of Inambao Plc
From : Financial Analyst
Date :
Subject: Comparative Financial Analysis of Pondapo and Dyakapo

Introduction

This report provides a comparative financial analysis of Pondapo and Dyakapo to aid in making an informed decision on which company is a better acquisition target. The report is primarily based on financial ratio analysis.

a) Required adjustments to ensure the ratios are on comparable basis:

The following explanations are in respect of the adjustments required based on notes 1 and 2 in the scenario to ensure that the ratio analysis of Pondapo and Dyakapo is on a comparable basis:

1. The substance of the transaction is that there is a borrowing and the inventory used as security. Ownership of inventory has not passed. There, the amount purported as sales should be treated as a short term loan repayable with interest. Therefore revenue must be reduced by K2.4million with a corresponding increase in Short term borrowings. Cost of sales must be reduced by the cost of these goods with a corresponding increase in closing inventory ($2.4\text{million} \times 100/160 = 1.5\text{ million}$). Gross profit will fall by K0.9 million (that is $60/160 \times K2.4\text{million}$).
2. The non current assets of both companies must either be both revalued or not revalued. Information to revalue the non current assets of Pondapo is not hence we must reverse the effects of revaluing the assets of Dyakapo. This reduces the company's non current assets by K5 million and the revaluation reserve by the same amount. Reversal of the depreciation on the revaluation gain will increase non current assets by K1 million with a corresponding decrease in cost of sales.

Please refer to appendix 1 to see the revised figures after the above adjustments.

b) Recalculation of the four key ratios and analysis of the potential targets.

The four key ratios have been recalculated after incorporating the adjustments in section a) above. Please refer to appendix 2 for the recalculated ratios.

The adjustments carried out to make the financial statements of the two companies comparable make it far less easy to decide which company is a better acquisition target. Pondapo has a higher GP margin. However it now has a lower ROCE, the main reason being that it has higher operating expenses. The asset turnover figures are similar

However, after the adjustments, though both have experienced an increase in gearing Pondapo has an advantage of a lower gearing.

Overall, it would appear that Dyakapo would be a better investment. However, either company would be an acceptable target.

c) Contrasting the analysis in b) above with the view presented by the original information

Based on the original figures, pondapo is a better target as it has better ratios in all areas (both profitability and gearing). This is in contrast with the amounts after the adjustments as analysed in b) above.

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 19 MARCH 2020

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.
2. This paper is divided into TWO sections:
Section A: One (1) Compulsory scenario question.
Section B: Four (4) Optional Questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted

QUESTION ONE

Chibombo Chemicals Plc. is a subsidiary of a UK based Company in the manufacture of Chemical fertilizers. The company is listed on the Lusaka Stock Exchange and at the time of listing it met the listing requirements.

Your firm of Chartered Accountants is auditor of Chibombo Chemicals Plc. which has been an audit client of your firm for three years now. The planning of the audit for the financial year ended 31 December 2018 has commenced. Clive is the audit manager for this assignment and he has vast experience in the operations of Chibombo Chemicals Plc. having worked as Finance Manager at the Head Office in the UK and he was responsible for the financial aspects of the operations of the African subsidiaries.

Chibombo Chemicals Plc. sells the bulk of its products on the local market and currently exports to Botswana to a company owned by the UK holding company. Two years ago the company entered into negotiations with the Democratic Republic of Congo for the supply of fertilizers to the Katanga Province of that country. To this effect the company increased its production by 20% and has in stock a large volume of fertilizer in excess of local requirements and exports to Botswana. Chemical fertilizers have a life of three years before they expire and cannot be sold on the market. The company has offered huge discounts for this fertilizer to attract customers so that it is cleared within the next one year due to delays in concluding the export deal to the DRC.

In an effort to increase sales, in the year under review, Chibombo Chemicals Plc. has identified agents in all the provinces of Zambia and it supplies them with fertilizers on a consignment basis. The agents take ownership of the products when they have sold to the public and the sales made are advised to Chibombo Chemicals Plc. on monthly returns which show the sales for the month and the closing inventory. The company has also large stocks of fertilizers which it keeps at rented warehouses in Lusaka because it has insufficient storage capacity at its factory. In addition to bulk stocks of finished products, the company has work in progress at the period end.

Sherry was assigned audit senior on this audit. In the middle of the planning of the audit, Sherry gave birth to a baby and has proceeded on maternity leave. Clive has assigned you to take over from Sherry as audit senior and he has informed you that you have a tight schedule ahead and he does not wish that you start afresh with the audit plan but instead you continue from where she left using the current working paper file that she prepared.

The Tax Manager of your firm has informed you that in addition to performing the audit, you will be required to compute the current tax and deferred tax of Chibombo Chemicals as previously agreed before Sherry took leave. You will also be required to submit the tax returns for the previous financial year.

The following additional information is contained in the working papers prepared by Sherry.

The company produces hazardous materials from its manufacturing processes and the disposal of these materials is strictly regulated by the Zambia Environmental Management Agency and disposals outside the regulations attract stiff penalties and possible withdrawal of the license to operate.

The company imports the bulk of its raw materials from China and the prices are quoted in United States dollars. The depreciation of the local currency has had adverse effect on the cash flow of the company. The poor cash flow that the company is experiencing has resulted in the withdrawal of credit facilities to some of its large consumer customers. A number of these customers have reduced the volume of purchases from Chibombo Chemicals Plc. Chibombo Chemicals Plc. has proposed that, in order to mitigate the short term cash flow problems, your firm gives it a short term loan of K450 000 which amount your firm will deduct from the audit fee for the current audit. Alternatively if the firm cannot give the loan requested Chibombo Chemicals Plc. management has requested that the firm guarantees a loan that the company would obtain from its bankers.

A note on the work carried out by Sherry on the review of the internal controls of Chibombo Chemicals suggests that the control environment is poor. Sherry noted, however, that there are procedure manuals in place and it may be appropriate to place reliance on the internal controls in order to reduce on the extent of substantive tests.

In a meeting that you held with the Finance Director of Chibombo Chemicals Plc. he informed you that production costs of fertilizers have significantly increased resulting in increased costs of the finished products. This has resulted in low demand for fertilizer and reduced sales. He informed you that in order to offset the loss of revenue the company has in the recent past imported finished products from the Far East which are landed in the country at a lower cost than the locally manufactured fertilizer. In order to reduce on import duties on the imported finished products, the company disguises the finished products as raw materials which attract much less duty. On further investigations you establish that this is contrary to the current tax law and it would attract severe penalties on the company.

A copy of the draft financial statements of Chibombo Chemicals includes the following figures:

1. An amount of K967 000 described as provisions. The financial statements for the previous financial year do not have any amount of provisions.
2. An amount of K2 400 000 described as Plant, Property and Equipment. The schedule giving the breakdown of this figure shows that there is equipment worth K760 000 that is held for sale.

The board of Chibombo Chemicals approved the sale of the said equipment to a small fertilizer manufacturing company and price negotiations are taking place.

Required:

- (a) Identify and explain eight (8) business risks in Chibombo Chemicals Plc. (12 marks)

- (b) For each risk identified in (a) discuss the audit response that your firm will take. (8 marks)
- (c) Evaluate the ethical matters in the audit of Chibombo Chemicals Plc. and discuss the response that your firm will take with regards these matters. (8 marks)
- (d) Explain the risks in the following figures in the draft financial statements of Chibombo Chemicals Plc. and suggest suitable audit procedures that should be undertaken:
- | | | | |
|------|---------------------------------|-------------|-----------|
| (i) | Provisions | K967 000.00 | (4 marks) |
| (ii) | The equipment intended for sale | K760 000.00 | (4 marks) |
- (e) Evaluate the need of the use of an auditor expert in the audit of the financial statements of Chibombo Chemicals Plc. clearly explaining the impact on the audit of the work of an expert. (4 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this Section. Attempt any three (3).

QUESTION TWO

Glade Import & Export General Dealers is a company which is in the forestry industry. It operates from a single site in one of the SADC countries and is owned by its three (3) directors. The main business that Glade Import & Export General Dealers undertakes is importing timber from within the SADC region and exporting it to Asian countries. The timber is from both natural forests and managed plantations. Effective 1 May 2019, SADC introduced a legal requirement for entities situated within the SADC region to include a social and environmental report in their annual reports. This follows a widespread belief by member countries that social and environmental issues are a particular source of risk to companies.

The directors have obtained reliable legal advice that they must comply with the requirement to avoid trading illegally. They have therefore, instructed Mr. Luke Phiri, the Finance Director (FD) to include a social and environmental report in the 2019 annual report. According to company policy, all reports made public must be verified by an independent firm.

Nambi & Co. is the external auditor for Glade Import & Export General Dealers and the directors have requested the firm to produce a verification report in relation to the social and environmental report. The 2019 draft annual report of Glade Import & Export General Dealers for the year ended 30 September 2019, contains a proposed full page social and environment report. You are an Audit Manager in Nambi & Co. and the Engagement Partner has assigned you the responsibility of carrying out the verification exercise. He has advised you to consider communicating with the Audit Committee should you have any concerns regarding the draft social and environmental report.

You are not part of the financial statement audit engagement team. A Junior Auditor who recently completed his CA Zambia has also been assigned to the verification exercise as part of his training programme.

Included in the proposed social and environmental report is the following narrative:

"Glade Import & Export General Dealers has developed an excellent social and environmental policy focusing mainly on management commitment, respect and safeguard of people, sustainable use of natural resources and energy conservation. During the year ended 30 September 2019, the company planted 1,000 trees, achieved a zero fatality rate and donated over K100,000 on various corporate social responsibility projects."

You are now starting to plan the verification exercise of the social and environment report. The Junior Auditor has made the following comment about the impact of social and environmental matters on financial statements:

"I have heard that the financial statement audit engagement team is currently carrying out substantive procedures and are also considering social and environmental issues. Surely this is a waste of time and it will unnecessarily delay the signing of the audit report."

Required:

- (a) Explain five (5) main risks related to social and environmental issues for companies like Glade Import & Export General Dealers. (5 marks)
- (b) Discuss, with reasons, whether or not the Junior Auditor's comment is valid. (5 marks)
- (c) Explain why you will need to communicate with the audit committee over any concerns regarding the draft social and environmental audit report. (4 marks)
- (d) Comment on the matters to consider and the evidence to seek in relation to the three (3) assertions made in the proposed social and environmental report. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Mushili Plc is a company which is listed on the Lusaka Securities Exchange (LuSE). It designs, develops and sells accounting software. Mushili Plc has a large centralised Research & Development department which carries out all the design work before it passes the completed accounting software to the sales and distribution department to market and distribute the product.

You are an Audit Manager in Kabwe Associates and you are in charge of the audit of Mushili Plc. The audit of the financial statements of Mushili Plc for the year ended 30 June 2019 is nearly complete and the auditor's report is due to be issued after the meeting scheduled with those charged with governance within the next two (2) weeks. The draft financial statements recognise profit before taxation for the year of K27 million and total assets of K185 million.

Today, you have visited Mushili Plc's offices to review the draft financial statements and the audit working papers. The Audit Supervisor has drafted the following "points for the attention of the Audit Manager":

Intangible Assets

Mushili Plc incurred K20 million during the year on research and development. K17 million of this expenditure has been capitalised while K3 million has been expensed. The Audit Supervisor has proposed that an additional K4 million should be expensed since it does not

meet the criteria in IAS 38 *Intangible assets* for recognition as an asset. The Finance Director is of the opinion that the K4 million does meet the criteria specified by the standard.

Legal claim

On 25 June 2019, the company's directors received a legal claim from a client, Mambwe Ltd, regarding the malfunctioning of the accounting software bought on 1 March 2019. Mambwe Ltd is demanding a refund of K120,000. It is alleged that Mushili Plc's engineers have failed to rectify the problem. The company's lawyers have advised that there is a 10% chance that Mushili Plc will lose the case. Included in the draft financial statements is a provision of K12,000 (10% X 120,000). The Audit Supervisor is of the opinion that the provision is unnecessary although no audit procedures have been carried out.

Earnings per Share (EPS)

The draft financial statements for the year ended 30 June 2019 show EPS of K0.05. The Audit Supervisor has discovered that the EPS is overstated because the preference dividends have not been deducted from the earnings in the computation of EPS. The correct EPS is K0.04. You have confirmed the accuracy of the Audit Supervisor's computation. The Finance Director, however, is proposing that no correction should be made because the difference is immaterial.

The Audit Supervisor has also sent you an email regarding uncorrected misstatements on receivables, which needs your consideration. He wants you to advise him on the action to take, if any. Your conclusion is that the uncorrected misstatement is clearly trivial.

Required:

- (a) Describe the auditors' responsibility regarding the uncorrected misstatement in receivables. (3 marks)
- (b) For each of the above points:
 - (i) Comment on the matters you should consider, and
 - (ii) The evidence you should expect to find, in undertaking your review of the audit working papers and draft financial statements of Mushili Plc. (12 marks)
- (c) Describe the audit procedures which should be carried out to obtain sufficient and appropriate audit evidence in relation to a legal claim. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Manager responsible for the audit of Mwansabombwe Company. Mwansabombwe is a manufacturing company based in Lusaka which supplies kitchen units to both new and old house owners across the country. Mwansabombwe's financial year ended on 31 July 2018 and you are reviewing the audit work which has been completed on a number of material balances and transactions: capital expenditure and payroll expenses.

Mwansa, the audit supervisor has provided you with a detail of the work which has been performed. In each of the cases, the full scope of the audit procedures carried out by the audit team and the description of the audit work are given.

(a) Capital expenditure

During the audit of Mwansabombwe Company, the audit team selected a material transaction to test and found that key internal controls over capital expenditure were not operating effectively. Authorization had not been obtained for an order placed for several kitchen units delivery vans. Similarly, appropriate segregation of duties over initiating and processing the transaction was not maintained.

Your audit team recorded particulars of the internal control deficiencies in Mwansabombwe Company and amended the systems notes on the permanent audit file to reflect the deficiencies. The audit work completed on this order was to reconcile the purchase of the kitchen units' delivery vans to purchase invoices, cash book and the bank statement. However, the rest of the audit work on capital expenditure was conducted and completed in accordance with the audit programme. (10 marks)

(b) Payroll expenses

Bombwe Company has been contracted to process all of Mwansabombwe Company's salary expenses. All payroll expenses recognised in the financial statements of Mwansabombwe Company have been traced back to year-end reports issued by Bombwe Company. Bombwe Company sends year-end reports directly to the Finance Director of Mwansabombwe Company who re-directs them to your audit team.

The nature of Mwansabombwe Company's business requires that a few casual workers are employed. Casual workers are paid in cash at the end of each month and are not entered into the payroll system. Your audit team has reconciled the cash payment made with the petty cash records and the amounts involved are considered immaterial. (10 marks)

Required:

In respect of each of the two (2) matters described above:

- (a) Comment on the sufficiency and appropriateness of the audit evidence obtained (4 marks)
- (b) Recommend further audit procedures to be performed by the audit team. (8 marks)
- (c) Explain the matters which should be included in a report in accordance with ISA 265 Communicating Deficiencies in Internal Controls to Those Charged with Governance and

QUESTION FIVE

You are an audit manager in MKM Chartered Accountants which offers a range of assurance services. Your firm has been auditing Mwafi Enterprises for the past five years. You are responsible for the audit of Mwafi Enterprises and provides about 10 per cent of your firms practice income every year. The Chief Accountant of Mwafi Enterprises contacted you recently with a request to provide information about Chumbu Company which is looking to appoint a provider of assurance services.

The following are some of the contents of the communication sent to you by the Finance Director of Mwafi Enterprises:

"Mabvuto Chirwa, the CEO of Chumbu Company is a good friend of mine. Chumbu is a small company but is looking to grow in the next 3 to 5 years. Mabvuto has approached the company's bank for a financing of about K10 million to be used exclusively in the expansion programme. As a requirement, the loan application needs support. Therefore, Mabvuto wants to appoint a firm to provide an assurance review on the company's financial statements and also to appoint a tax consultancy firm to provide tax planning advice as well as prepare the company's tax computation for submission to Zambia Revenue Authority (ZRA). In addition, the company should also be able to assist in the preparation of Mabvuto's personal tax computation in line with ZRA's tax regulations. I have asked my friend Mabvuto to contact you, hoping that your firm will be able to provide the services itemized above to Chumbu Company at a reasonably low fee. If you propose a very high fee and not acceptable to Mabvuto, I will have no option but to make a recommendation to Mabvuto to consider approaching Limbikani and Company as an alternative. Additionally, Limbikani and Company will also be appointed to provide the audit of Mwafi Enterprises."

After some detailed analysis of Chumbu Company, it is clear and confirmed that the company qualifies to be exempt from audit on the basis of its size. The family owns about 95 per cent of the share capital and it is family managed. Mabvuto Chirwa is the CEO and is also the majority shareholder of four other companies.

You have come across an old Times of Zambia cutting which carries a story of Mabvuto Chirwa. The story is that in 2009, one of the four companies owned by Mabvuto was once in serious trouble as a result of breaching employment regulations and was fined. You have also read that Mabvuto had used money from one of the four companies' pension plans to establish a business outside Zambia and appointed his young brother as CEO for the company.

Required:

In relation to MKM Chartered Accountant's potential acceptance of Chumbu Company as a client of the firm:

- (a) Explain the ethical issues and other matters which should be considered. (10 marks)
- (b) Explain the importance of obtaining customer due diligence. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 SUGGESTED SOLUTIONS

SOLUTION ONE:

(a)/ (b) **Business risks in Chibombo Chemicals Plc. and related audit responses:**

1. The fact that Chibombo Chemicals Plc. is a listed Company.

The fact that Chibombo Chemicals Plc. is a listed company suggests that the company is expected to meet the listing rules throughout the time that its shares are listed on the stock exchange.

The company met the listing requirements at the time of listing the shares. There is a risk that the company would breach the listing requirements and result in it suffering the consequences of not doing so. Such sanctions could include delisting the company from the stock exchange.

Audit response:

Obtain a copy of the listing requirements at the commencement of the audit. During the audit be alert and look out for any instances of non-compliance with the listing rules.

Obtain written representations from management and those charged with governance confirming the company's adherence with the listing requirements.

2. Disposal of hazardous materials.

There is a risk that Chibombo Chemicals Plc. may dispose of hazardous materials in a manner that is contrary to accepted methods. There are guidelines that should be followed when disposing such substances in accordance with guidelines issued by the ZEMA.

Non-compliance with the laid down procedures could result in Chibombo Chemicals Plc. being penalized and in the extreme case may result in the withdrawal of the operating license.

Audit response:

Enquire from management on the procedures for the disposal of waste material and during the audit observe how this is being done. Further, review the legal expenses account and establish the reasons for payments being made in case they relate to penalties for breaching the regulations.

Review guidelines by Chibombo Chemicals Plc. on disposal of waste materials and ensure that they are adequate.

3. The nature of the industry risk of chemical accidents to staff and surrounding community:

The risk of accidents in chemical industries is high and so there is a risk that factory accidents could happen resulting to injury or fatalities to staff. These

could result in Chibombo Chemicals Plc. being sued and liable if found to have been negligent.

Further, the company faces going concern issues if it is gutted by fire and there is insufficient insurance cover in place. Any fatalities that could also result in bad publicity for Chibombo Chemicals Plc.

Audit response:

Review the accident record of Chibombo Chemicals Plc. and find out from management of any accidents involving staff that may have occurred. Discuss with the in-house legal advisors and find out if there are any current legal cases against the company arising from injury to staff or damage caused to the environment.

4. Inventory held at various rented warehouses:

The company is renting several warehouses for the storage of raw materials and finished products. There is a risk that inventory at the period end might be misstated. Further there is a risk that inventory may be lost through theft or other ways at the rented warehouses.

Audit response:

Review the controls that have been put in place by management regarding the inventory held at rented warehouses.

Determine the warehouses that are being rented and plan to attend inventory counts at selected warehouses.

Further, seek third party confirmation of inventory held by consignees.

5. Valuation of work in progress:

Chibombo Chemicals Plc. carries work in progress at the year end. There is a risk that work in progress may be misstated. This is compounded by the fact that the auditors may not have the expertise to determine the value of work in progress for the chemical company.

Audit response:

Establish how work in progress has been determined by Chibombo Chemicals Plc. If the use of a management expert by the company has been made confirm the reliability of the work performed by establishing the competences and skills held by the expert and the independence in order for the expert to maintain objectivity.

The auditors may consider engaging an auditor expert to help verifying the value of work in progress at the period end.

6. Poor internal controls:

There is a risk of fraud taking place in Chibombo Chemicals Plc. due to the poor internal controls that exist. This could fraudulent financial reporting or misappropriation of assets.

Fraud could result in the company losing assets and this may impact on the continuity of the operations of the company.

Audit response:

Enquire from management of any fraud that happened and that they may suspect and obtain required representations from management and those charged with governance.

7. Non-compliance with the law:

Chibombo Chemicals Plc. is subject to laws including labor laws and environmental laws. There is a risk that the company will be in breach of laws which could result in the penalties that go with any breach in laws and regulations.

Audit response:

During the risk assessment procedures of Chibombo Chemicals Plc. establish the relevant laws and regulations that affect the company. Determine the laws and regulations that would result in the financial statements being misstated if breached.

During the course of the audit be alert and look out for any evidence of the breach of laws and regulations and discuss this matter with the in-house legal person. Obtain written representations from management on the company's adherence with laws and regulations.

8. Poor liquidity problems:

The fact that Chibombo Chemicals Plc. has liquidity problems poses a risk that the company will not have sufficient working capital to continue operating and pay for its imports of raw materials. There will also be customer dissatisfaction due to withdrawal of credit to customers and this may negatively impact the company which could get into going concern problems.

Audit response:

- Examine the cash flow forecasts prepared by management and assess the assumptions made.
- Enquire from management how they intend to deal with the liquidity problems.

9. Imports of raw materials and discounts to customers:

The importation of raw materials coupled with a depreciating local current is likely to have an adverse impact on the cash flow position of Chibombo Chemicals Plc. The company will need more of the local currency to pay for its

raw materials in a market where prices are already considered high and any price hikes may result in reduced demand.

The depreciation of the local currency is likely to have an adverse impact on cash flow and on the ability of the company to continue operating.

Audit response:

Review the cash flow made by management and evaluate the assumptions that have been made. Obtain written representations from management on their assessment of Chibombo Chemicals Plc. as a going concern.

10. Disguise of finished products as raw materials:

The importation of finished fertilizers and disguising this as raw material in order to pay less duties is a criminal act which could result in the company facing penalties and other consequences of this criminal act.

Audit response:

Discuss this with management and those charged with governance. If it is true that there is this act then the issue of confidentiality comes in regarding whether this should be brought to the attention of the relevant authorities. If in doubt there may be need to seek legal advice on the action that should be taken.

11. Huge discounts on stocks of inventory:

Chobombo Chemicals is offering huge discounts to customers in order to sell off stocks nearing expiry on the understanding that the export deal to DRC will be clinched. This may have implications on the ability of the company continuing as a going concern in the event that the DRC deal falls through.

Audit response:

Discuss with management the stage that has been reached with regards the intended exports to DRC and review the assumptions made by management in assessing that Chibombo Chemicals is a going concern.

c) Ethical matters in the audit of Chibombo Chemicals Plc.:

1. Clive the audit manager:

Clive who has been assigned to the audit of Chibombo Chemicals Plc. previously worked for the parent company in the UK. He was the one responsible for the operations in the African Subsidiaries and it is most likely that he visited and interacted greatly with the management of Chibombo Chemicals Plc. This relationship gives rise to a familiarity and self-review threat to some extent. This may result in Clive losing objectivity in the performance of the audit.

Audit response:

It would be appropriate to assign somebody as audit manager on the audit of Chibombo Chemicals Plc.

Alternatively, the working papers of the Chibombo Chemicals Plc. should be independently reviewed by somebody else who was not involved in the audit as part of quality control.

2. **Computation of tax & deferred tax:**

It is the responsibility of Chibombo Chemicals Plc.'s management to prepare the financial statements including the determination of the tax liability.

The auditors should not be involved in the determination of figures that are contained in the financial statements. The agreement with Sherry that the firm will be required to compute the current year tax and deferred tax means that the firm will be taking on a management role and this will result in a self-review.

Audit response:

The firm should not take part in the determination of tax liability. Alternatively, a different team from the team that will be assigned on the audit should be assigned to calculate the tax liability.

3. **Completion and submission of previous year tax returns:**

The completion of tax returns does not generally result in a threat to the independence of the auditor.

Management of Chibombo Plc. should, however, acknowledge its responsibility for the returns.

4. **Loan or guarantee requested by Chibombo Chemicals Plc.:**

The guidance on loans states that the audit firm should not enter into any loan or guarantee arrangement with a client that is not a bank or similar lending institution.

The request that the firm should give a loan of K450 000.00 will give rise to a self-interest threat. The request for alternatively that the firm guarantees the loan with the bank also poses a self-interest threat.

Audit response:

The firm should not enter into either the loan or guarantee arrangement with Chibombo Chemicals Plc. The firm should inform management of its inability to do so and explain the reasons behind this.

5. **Finished products imported as raw materials – confidentiality:**

Chibombo Chemicals Plc. is evading paying the correct import duties by falsely declaring that finished products imported are raw materials. This is a criminal act on the part of the company.

The fact that this has come to the attention of the firm, it is necessary that the firm considers its position. The firm should consider reporting this to appropriate authorities taking into consideration its responsibility to adhere to the ethical value of confidentiality.

It should be noted that criminal activities by a client company come under the exceptions of confidentiality. In a case where a client is involved in a crime, the auditor may disclose such information to third parties without seeking consent of the client. Failure to do so may suggest that the firm is an accomplice in committing a crime.

Audit response:

The firm should report this illegal act to a competent authority. This is notwithstanding the fact that it will result in a strained relationship with Chibombo Chemicals Plc.

If the firm is not sure of the action to take it may take legal advice.

d) i. **Risk of the figure of provisions:**

Provisions are generally a risky area for the auditors due to the fact that they are usually estimates and so subjective in nature. There is a risk that provisions in the financial statements may be misstated.

In the case of Chibombo Chemicals Plc. there is a risk that the figure of K967 000 may be misstated.

The following **audit procedures** will be carried out in the audit of the figure of K967 000:

- Obtain a breakdown of the make-up of the figure from management and cast the figure to test for accuracy.
- Agree the figure to the amounts in the relevant general ledger accounts to ensure that the amounts agree.
- Ensure that the amounts making up the provisions figure are for items that meet the requirements of IAS 37 *Provisions, contingent liabilities and contingent assets*.
- Review the assumptions made for determining the figures and where relevant compute the amounts.
- Examine post year end payments related to the provisions to determine accuracy of the amounts.
- Review previous year provisions and compare with actual payments to determine management's ability to make accounting estimates.

ii. **Risk of treatment of equipment intended for sale:**

The asset that Chibombo Chemicals Plc. intends to sell most likely meets the definitions of assets held for sale.

Guidance on the accounting for assets held for sale is given by IFRS 5 *Non-current assets held for sale and discontinued operations*.

The risk that may exist in the financial statements of Chibombo Chemicals Plc. with regards the figure of K760 000.00 is that the amount may not be appropriately treated in accordance with the provisions of IFRS 5.

Audit procedures for the equipment intended for sale:

- Confirm that the said equipment meets the definition of assets held for sale. This will be done through discussions with management.
- Review the minutes of the board meeting approving the sale of the equipment.
- Evaluate the steps that have been taken to sell the asset including the identification of a prospective customer.
- Confirm that the equipment will be appropriately disclosed separately in the financial statements if it meets the definition of assets held for sale.
- Confirm that the asset is valued at the lower of its carrying amount and the fair value less costs to sell and that no depreciation is computed for the asset.

e)The need for use of auditor experts in the audit of Chibombo Chemicals Plc.

Auditor experts are those who have expertise in a field other than audit and accounting. In the performance of audits there are situations where auditors may not have expertise to confirm certain figures contained in the financial statements. This lack of knowledge about how such figures are determined does not absolve the auditors from forming an opinion on the financial statements.

In the case of Chibombo Chemicals Plc. the company deals in the manufacture of fertilizers and determining quantities of bulk inventory and work in progress may be a challenge for the auditors. In such a situation, the auditors may engage the services of an auditor expert in the field of engineering to confirm the figures contained in the financial statements for inventory of finished goods and work in progress.

Impact of the use of auditor experts on the audit of Chibombo Chemicals Plc.

The auditor expert engaged by the auditors to perform procedures on their behalf does not take away the responsibilities of the auditors to form an opinion on the financial statements. The process of engaging an expert is part of obtaining evidence which will form the basis of the audit opinion.

The work that the expert performs and the conclusions that they reach will form part of the working papers of the auditor. The only concern that the auditor will have is to ensure that the expert has the necessary skills to perform the work and that he is independent of the client company so that he maintains his objectivity.

The auditors of Chibombo Chemicals Plc. will be fully responsible for their opinion and will not make reference to the work of the expert in their audit report.

SOLUTION TWO

a) Main risks related to social and environmental issues for companies like Glade Import & Export General Dealers:

The main risks related to social and environmental issues for companies like Glade Import & Export General Dealers include:

1. Bad publicity – this could lead to customers choosing other products, boycotts or loss of market share significant enough to prevent the business from continuing in operation.
2. Legislation – the company could be discovered not to be complying (through whistleblowing by employees or auditors, or investigation by a regulatory body). This could have the following effects:
 - Bad publicity – as discussed above.
 - Fines/compensation – these could be significant enough to prevent the continuance of the business.
 - Disqualification of directors – if the staff involved is key members of the organization, this could threaten the ability of the company to continue.
3. The company failing to meet its social obligations to the community within which it operates. This could result in customers and others not supporting the company for example by boycotting its products.
4. There is a risk that management may fail to meet the targets that have been set. This could result in fraudulent reporting particularly if there is some form of performance based pay to management based on meeting set social and environmental targets.

b) Validity of Junior Auditor's comments:

When carrying out substantive procedures, social and environmental issues, particularly environmental issues, may impact on the financial statements in a number of ways as follows:

- Provisions (for example, for site restoration, fines/compensation payments)
- Contingent liabilities (for example, in relation to pending legal action)
- Asset Values (issues may impact on impairment or purchased goodwill/products)
- Capital/revenue expenditure (costs of clean up or meeting legal standards)
- Development costs (new products)
- Going – concern issues

The Junior Auditor's comment is therefore not valid. There is a serious link between social and environmental issues, and the statutory financial statement audit. The verification exercise is a separate engagement aimed at reviewing the assertions made in the social and environment report in detail and giving assurance on them.

c) Communication with the Audit Committee:

The Audit Manager may consider communicating with the Audit committee because of its objectivity arising from its independence from management. The Audit Committee is made up of non-executive directors, who are likely to be more independent. Their responses are generally more reliable and credible.

The executive directors are interested parties and they may try to manipulate the social and environmental report. Hence, disputes with executive directors of Glade Import & Export General Dealers over the contents of the social and environmental report may arise. Management who are the responsible party may be motivated to falsify the social and environmental reports particularly where these measures are part of the performance measure of management.

The Audit Committee may provide comfort that the disputes have been addressed in an independent and objective manner.

d) Matters to consider and the evidence to seek in relation to the three (3) assertions:

1. Planting 1,000 trees

The assertion is fairly straightforward, although a few issues may need verification. Planting trees does not guarantee germination. Germination will depend on a number of factors which include quality of the soils, seedlings and general management.

This may mean that a series of links have to be checked, because germination could have been poor due to a number of factors.

Nambi & Co. may also find that it is a complex issue, and that the assertion may require verification by an expert.

Potential sources of evidence include: assertions from suppliers of seedlings, site visits at plantations and a review of any expert correspondence and documents.

2. Achieving a zero fatality rate:

The matters to consider with regards the assertion of zero fatality will include the reporting policies that are in place. There will be need to consider the likelihood that management would want to hide or disguise any fatalities that may have occurred because of the likely adverse effect that these may have on the company.

There would also be need to review any insurance claims made by the company to establish the reasons for such claims in case they are in relation to fatalities that may have occurred in the company. Consideration would be put to obtain written representations from management that it has disclosed

all fatalities that may have occurred during the year including the fact that there may have been no fatalities during the year under review.

Possible sources of evidence include: management representation regarding the zero fatality rate, documentation on reporting structure, correspondence with inspectors, insurance premiums and claims etc.

3. Donation of over K100, 000 on various corporate social responsibility projects:

This could be easy to verify as long as the internal controls are strong. It is possible that the "over K100, 000" is an overstatement, and the use of "various" corporate social responsibility projects is not specific. Donations are generally subject to fraud and may not go to intended projects.

Nambi & Co. will have to carry out tests of controls on the relevant system for donations. It will also be important to obtain a specific list of the corporate social responsibility projects for the over K100, 000 donation and establish the actual amount by vouching the relevant payments.

Possible sources of evidence include: correspondence relevant to donations, copies of relevant payment vouchers and bank statements, confirmations from recipients etc.

SOLUTION THREE

a) Auditors' responsibility regarding the uncorrected misstatement in receivables:

Uncorrected misstatements are misstatements that the auditor has accumulated during the audit (unless clearly trivial) and that have not been corrected.

ISA 450 *Evaluation of Misstatements Identified during the Audit* gives detailed guidance in this area. The standard states that the auditor shall determine whether uncorrected misstatements are material, individually or in aggregate. The auditor shall communicate with those charged with governance uncorrected misstatements and the effect that they, individually or in aggregate, may have on the opinion in the auditor's report, unless prohibited by law or regulation.

b) Matters to consider and evidence expected:

Intangible Assets

i. Matters to consider

- Materiality – The proposed additional expense of K4 million is material to both profit at 14.8% ($4/27 \times 100\%$) and to the total assets at 2.2% ($4/185 \times 100\%$).
- Risk of misstatement – Expenses could be understated while both profits and total assets could be overstated since there is a risk that research costs may have been capitalized inappropriately as development costs.
- Accounting – IAS 38 *Intangible assets* requires research costs to be expensed and development costs to be capitalized. Criteria for capitalization include: the technical feasibility of the developed product; the intention to complete the product development; the ability to sell the asset; that resources are available to complete the development.
- Impact on audit report – If the capitalization is wrong, then the audit opinion will be modified. The appropriate modified opinion could be a qualified opinion since the issue is material but unlikely to be pervasive.

ii. Evidence expected:

- Confirmation that project is clearly defined and related expenditure is separately identified, supported by copies of certified invoices, timesheets etc.
- Copies of market research reports, feasibility studies, budgets and forecasts
- Relevant correspondence with technical experts
- Review of results to date in terms of costs and revenues
- Review of calculations of future cash flows

Legal claim

i. Matters to consider

- Materiality – The claim of K120, 000 is immaterial to both profit at 0.4% ($120,000/27,000,000 \times 100\%$) and total assets at 0.06% ($120,000/185,000,000 \times 100\%$). The provision is also clearly immaterial.
- Risk of misstatement – The risk is that profit could be understated and the provision overstated.
- Accounting – IAS 37 *Provisions, contingent liabilities and contingent assets* requires a provision to be recognized where, as a result of a past event, an outflow of economic benefits is probable, the amount of which can be estimated reliably. If such an outflow is only possible but not probable then it is a contingent liability, and should be disclosed in a note to the financial statements. The claim in this case at 10% is not 'probable', so no provision is necessary.
- Impact on audit report – If the provision is not reversed, then the audit opinion will not be modified since the issue is immaterial.

ii. Evidence Expected:

- Details of the contract with Mambwe Ltd
- Correspondence with Mushili Plc's engineers
- Copy of the legal claim
- Correspondence with company's lawyers
- Copy of any insurance contract
- Management representation pertaining to the outcome of the case

Earnings per Share (EPS)

i. Matters to consider:

- Materiality – The value of the EPS is clearly not material but it is a key investor figure. As it will be of interest to all the investors who read it, it is material by its nature.
- Risk of misstatement – The risk is that EPS disclosed is wrong.
- Accounting – IAS 33 *Earnings per Share* requires that companies of a certain size disclose their EPS for the year. Mushili Plc. is a listed company and therefore is required to disclose EPS. The earnings in the computation of EPS must be the net profit attributable to ordinary shareholders. Preference dividends have to be deducted from the earnings when computing EPS.
- Impact on audit report – If the EPS disclosed is not corrected, then the audit opinion will be modified since the issue is material. A qualified opinion will be appropriate since the issue is material but not pervasive.

ii. Evidence expected:

- Copy of the draft financial statements
- Copy of Mushili Plc.'s workings for EPS
- Recalculation of EPS
- Correspondence with Finance Director

c) Audit procedures in relation to the legal claim:

- Obtain details of the contract with Mambwe Ltd and review the contractual obligations
- Review correspondence with Mushili Plc.'s engineers
- Discuss the contractual obligations with Mushili Plc.'s management
- Obtain a copy of the legal claim to confirm the amount of the claim and any other relevant details
- Review correspondence with Mambwe Ltd to confirm the claim and any latest developments on the claim e.g. there could be a possibility of settlement out of court.
- Obtain correspondence with company's lawyers and discuss with them regarding their legal opinion
- Obtain any copy of any insurance contract and review details of any claim
- Obtain management representation on the outcome of the case and the provision made

SOLUTION FOUR

a) Sufficiency and appropriateness of audit evidence obtained:

Sufficiency of audit evidence relates to the quantity of evidence obtained which will form the basis for conclusions that will be reached by the auditors. Appropriateness relates to the relevancy and validity of the evidence in other words the quality of the evidence with regards the assertions being tested.

Capital expenditure:

The selection of a transaction on capital expenditure and testing for authorization was appropriate in the audit of capital expenditure.

Testing one transaction and basing the audit conclusion based on the results of the tests on this item appears to have been insufficient evidence. The sufficiency of evidence is a matter of professional judgment by the auditor but it appears that testing one item is not sufficient and a larger sample would have been required.

Payroll expenses:

Mwansabombwe Company uses the services of a service organization for the preparation of payroll from which figures in the financial statements are extracted.

Reliance on the figures contained in the reports from the service organization falls short of appropriate evidence in the audit of Mwansabombwe Company.

More work with regards controls in Mwansabombwe Company and the input information supplied to the service organization would be appropriate.

Further, with the permission of Mwansabombwe Company, the auditors would perform specific tests and audit procedures at the service organization in order to test the accuracy of the reports that are produced and submitted to Mwansabombwe Company. The contract entered into between the two companies could provide details of the conditions entered into.

The amount of work carried out on payroll expenses does not appear to be sufficient and more work needed to be carried out. The auditors could also consider entering into a separate engagement with Mwansabombwe Company to carry out a separate review of the operations of the service organization in accordance with ISAE 3402 *Assurance Reports on Controls at a Service Organization*.

b) Further audit procedures to be performed:

Capital expenditure:

- The audit team should physically verify the Kitchen units' delivery vans and confirm that they are being used by Mwansabombwe Company employees and are being used on company business.
- The audit team should obtain the log book/ Kitchen units' delivery vans' registration document and other relevant ownership documents issued by

Road Transport and Safety Agency (RTSA), to confirm the right of Mwansabombwe Company to recognize the vehicles.

- The audit team should obtain the insurance documents to confirm that Mwansabombwe Company is paying the relevant insurance for the Kitchen units' delivery vans'
- The audit team should trace the Kitchen units' delivery vans to the Mwansabombwe Company's non-current asset register.
- The audit team should recalculate the depreciation which should have been charged on the Kitchen units' delivery vans and agree to the statement of profit or loss for the year.

Payroll expenses:

- The audit team should read all reports made by Bombwe Company during the year to identify any risks of misstatement in the payroll figure submitted.
- The audit team should review the service agreement signed between Mwansabombwe Company and Bombwe Company as a way of understanding the actual work which is to be conducted by Bombwe Company as a service organizations.
- The audit team should discuss and document relevant controls that have been put in place at Mwansabombwe Company over the information received from Bombwe Company.
- The audit team should discuss with Mwansabombwe Company the management of casual employees, and perform tests of controls on a sample basis.
- The audit team should perform a substantive analytical review on payroll, preparing an auditor's expectation of the payroll figures and comparing it to that recognized in the financial statements of Mwansabombwe Company and discussing any variance with management.
- The audit team should recalculate the amounts of unpaid taxes due in respect of the casual workers.
- The audit team should read any user manuals or systems overviews in order to assess the adequacy of controls in place over the processing of payroll.
- The audit team should selecting a sample from the payroll records, perform test of detail and agree the amounts to pay slips and Human Resource records.

c) Matters to be included in the report to management:

Observations made by the auditors:

Included in this paragraph are the weaknesses in internal controls that have been observed by the auditors during the audit. The matter should be clearly explained by the auditors based on the work and evidence that has been obtained.

In the case at hand the internal control weaknesses observed will be detailed in this paragraph.

Implication of the observations made:

Under this paragraph will be details of the implication on the financial statements and the client organization of the observations that were made by the auditors.

In this case the fact that internal control weaknesses could result in fraud and error not being detected will be stated in this paragraph.

Recommendations to remedy the observations made:

The recommendations by the auditor aimed at remedying the weaknesses observed. Management will be expected to implement these recommendations in their systems. A recommendation could be made to the management of Mwansabombwe Company to put in place suitable controls and monitoring systems should be considered including setting up an internal audit department.

The response of management:

This paragraph includes the responses by management on the observations and recommendations that have been made by the auditors. These responses will be obtained from a member of the audit client with requisite authority such as the chief accountant or the finance manager.

Before finalization of the audit and issuance of the management letter, the observations made by the auditors including the internal controls would have been brought to the attention of the management of Mwansabombwe Company Plc. and the responses made

SOLUTION FIVE

a) Ethical and other matters to be considered:

The threat by Chief Accountant of Mwafi Enterprises:

The threat by the Chief Accountant of Mwafi Enterprises that if the firm does not agree to an acceptable fee they will refer Chumbu Company to another firm and that the engagement with Mwafi Enterprises will also be cut amounts to intimidation. The firm should be free to make its own assessment and decision on whether to accept an appointment or not.

Self-interest threat of losing the audit of Mwafi Enterprises:

This is the threat that the firm may accept to provide review services to Chumbu Company on conditions that are not favorable for fear of displeasing Mwafi Enterprises who has a close relationship with Chumbu Company through the Chief Accountants.

Reliance of losing a client whose income is 10%:

Mwanfi Enterprises appear to be an important client contribution 10% of its total income. This gives rise to a self-interest threat based on too much reliance on one client for the firm's income. The firm would need to apply suitable safeguards to remove this threat.

Charging less than economical fee to Chumbu Company:

There is a threat that the firm may use lowballing as a basis for getting this review engagement. Although there is no prohibition on charging low fees for non-assurance services there is a risk that the firm may use unacceptable means of cutting the costs of performing the work.

Preparation of tax computation:

The firm will be required to provide assurance on the company's financial statements and at the same time be involved in preparation of the tax computation. This will give rise to a self-review threat because the figures in the tax computations will form part of the financial statements on which a review will be carried out.

b) The importance of obtaining customer due diligence and the information which should be obtained:

Customer due diligence (CDD) is also referred to as "know your client procedures", is needed as part of anti-money laundering regulations, which all audit firms should have in place when accepting new clients.

It about obtaining information to be able to identify who the prospective client is and verify identity by reference to independent and reliable source material.

It is important for the auditor to obtain customer due diligence for the following reasons:

- i. It is a good basis for the auditor in determining whether or not to accept or continue with an engagement with the client.
- ii. The auditor gets to know who the true owners of the client are. This helps the auditor to confirm whether or not management has the integrity that the auditor expects.
- iii. Through customer due diligence, the auditor will reduce the risk of being sued because of dealing with unscrupulous individuals.
- iv. The auditors will get to know the industry that the client is involved in and also the main source of the income of the client.
- v. To assist in establishing whether or not the prospective client is involved in money laundering or not. Dealing with companies involved in money laundering may tarnish the reputation of the firm.

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.3: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 18 MARCH 2020

TOTAL MARKS: 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:
Section A: One (1) compulsory scenario question.
Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. Present Value and Annuity tables are attached at the end of this paper.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE – (COMPULSORY)

DELL COMPUTERS' BUSINESS MODEL

It has been said that Michael Dell, founder and CEO of Dell Computers, became the Henry Ford of the information age – as a mass producer of standardized products. Dell assembles and sells PCs and laptops and, more recently, servers and storage hardware. The company began when Dell was a university student in the 1980s. In the early days Dell sold only to the business market, and, although this remains important, home consumers have been a vital growth area. The business model was simple and powerful – and unusual for the industry.

Dell buys in standardized components in order to minimize the need for any expensive R & D. The company has relied extensively on Intel chips. Sales are direct to customers, typically over the Internet or telephone. Together with a telephone helpline, this alleviates the need for middlemen and the consequential distributor margins. Dell builds to order and carries very little inventory of finished products. This cannot happen effectively without strict attention to detail and constant process re-engineering. The assembly time for a PC was reduced to 4 minutes, with a further 30 seconds allowed to fix the holograms and logos for Microsoft and Intel.

Dell never set out to be a high-technology company, but instead relied on sales and logistics, driven by low costs.

As a result Dell had relatively low costs. It then adopts a very aggressive pricing policy in order to seize market share from any competitor who has 'taken its eye off the ball' and let its costs increase. The assumption was that this business model could be used for other consumer electrical products such as digital music players and flat screen televisions. Some critics always argued that the model has to be limited as a substantial proportion of consumers would be unwilling to buy without being able to inspect a model in a store. But the logic of this argument becomes thinner as more and more of us know people who have bought a Dell – we can inspect others.

However by 2005 it was apparent that the sales growth was slowing. New products – servers and printers, which amounted to two-thirds of sales – were not as successful as PCs, where Dell was selling 1 in every 3 bought in the USA.

It was less successful with notebooks, which were being supplied direct from manufacturers in Taiwan. Competitors, especially Hewlett Packard and Acer, had narrowed the price advantage. Between 2000 and 2005 Dell's cost advantage reduced from 20 percent to 10 percent and its price advantage more dramatically from 25 percent to just 5 percent. In addition it was developing a reputation for inadequate service when something was wrong with a product.

In 2006 the CEO resigned. Kevin Rollins had worked as an external management consultant for Dell prior to joining the business full-time in 1996. He was Number Two to Michael Dell and replaced him as CEO in 2004. He had been responsible for much of the manufacturing efficiency and cost saving. But Dell was accused of 'tunnel vision with its sales model' and Michael Dell felt it necessary to take over again.

Alongside job cuts, the company soon announced a renewed emphasis on product design, confirmed it would increase sales through third party vendors, including systems installers, and seek to acquire other businesses which had more of a customer services focus.

(Source: Thompson, J. & Martin, F. Strategic Management – Awareness and Change. Sixth Edition. South-Western CENGAGE Learning, UK, pp.23 – 24.)

Required:

- (a) Explain the competitive strategy that would be suitable for Dell Computers for it to avoid the loss of competitiveness that it has been experiencing. (10 marks)
- (b) In addition to what Dell experienced briefly state any five (5) sources of competitive advantage over its rivals. (10 marks)
- (c) Explain how IT influenced the choice and implementation of Dell Computers' competitive strategy. (10 marks)
- (d) Describe how technological change impacted the operational efficiency and effectiveness of Dell Computers. (10 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section

QUESTION TWO

University of Chilanga is a recently opened public university that is offering degree and diploma programmes. Due to competition from both private and public universities, its Council has requested management to come up with clear mission and vision statements. Management has requested you specifically to present and enlighten the council members at its next sitting on the same.

Required:

- (a) Define a mission statement and a vision statement and state any one major difference between them. (5 marks)
- (b) Explain any three (3) major aspects of a mission that the university will need to be aware of. (15 marks)

[Total: 20 Marks]

QUESTION THREE

The Lusaka Waste Management Company has come under severe public scrutiny following the recent outbreak of cholera especially in the high density townships of the city and Soweto market. It was hoped by both the central and local governments that the company had a strong and independent board of directors that should carry out decisive actions that will ensure that senior managers make strategic decisions that protect the interests of all company stakeholders.

Required:

- (a) Explain any four (4) such actions the board of directors should carry out to ensure management act professionally and in the interest of all stakeholders of the company. (12 marks)
- (b) State four (4) corporate social responsibility stances that companies should have taken in line with the cholera outbreak in Lusaka. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

During the period up to the year 2004, the European ice cream market underwent significant change: some segments were relatively mature while some were experiencing strong growth. The North American market was more mature and fragmented with stronger regional brands.

The market can be divided into the following segments:

1. The super-premium segment, typified by Häagen-Dazs, was still in the early stages of its growth at this time. New companies were still entering the segment, for example Ben and Jerry's from the USA had been acquired by Unilever, but it had yet to be launched in some parts of continental Europe. New products were being tried using new methods of carton presentation and new high prices.
2. The premium segment had developed significantly in 1989 with the introduction of premium-proceed Mars ice cream. By the year 2000, there were few new companies entering the market. The basic product ranges had become established among the leading players; the strategic battle was for distribution and branding.
3. The regular and Economy segments were typified by Unilever's bulk packs, sold under the name Carte d'Or across much of Europe. These had existed for many years but were still growing at around 5 – 6 per cent per annum (still regarded as a growth market according to some definitions). The segment also had a large number of other suppliers, not all of whom were national, let alone European. There was keen competition on price and with own-label products from grocery retailers. There was relatively little product innovation.

Required:

- (a) Explain the product life cycle stage and strategies which each segment was pursuing, fully justifying your choices. (6 marks)
- (b) Explain the appropriateness of each strategy for the segment in question. (6 marks)
- (c) Recommend the right strategy which firms in this sector should utilize, justifying your choice. (6 marks)
- (d) Illustrate a typical product life cycle. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

ZICTA has officially announced that they have given a notification to award a 4th mobile network operator license to UZI Zambia Limited, based on reviews carried out over the past 2 years. The notification is for a Network License under the International Market Segment and a Service License under the National Market Segment. The two licenses were up for competition after a call for proposals ended last year. Only two proposals were received and UZI has been awarded the licenses. UZI Zambia Limited has pledged a US\$350 million investment and will see the creation of 450 direct employment opportunities. ZICTA Manager of Corporate Communications Ngabo Nakonde said the regulator realized the “need for deeper competition on the market with a view to attain improvements in the quality of service offered on the market, attain more competitive pricing outcomes as well as enhance the levels of investment on the market.”

Government approved a law in June last year allowing more mobile phone voice service providers to boost competition. UZI will reportedly be rolling out 4G/LTE and 5G network capabilities to over 100 universal access sites in Zambia.

Required:

- (a) Imagine you are the new Business Development Manager for Zamtel, explain the competitive strategies that you would consider in order to respond to competitive pressure from UZI Zambia Limited. (15 marks)

- (b) Collaboration between buyers and sellers and between potential competitors can reduce costs below those of operating independently. In this regard collaboration is considered a valid strategic option.

State the reasons why collaboration is a valid strategic option. (5 marks)

[Total: 20 Marks]

END OF PAPER

ZICA ADVISORY LEVEL EXAMINATION 2018

CA 3.3 SUGGESTED SOLUTIONS

SOULTION ONE

- a. Dell started by utilizing the cost leadership strategy as it focused on being the lowest cost producer in the industry by mass producing standardized products, sourcing directly from the suppliers and maintaining very low levels of inventory. Then it started a price war by adopting an aggressive pricing policy to capture market share from its competitors. This made the company to take its eyes off the type of products which it was producing and for an industry where product innovations are the most important competitive factor, the consequential slowing down in sales was inevitable. The customers in this industry are more interested in innovative features than product prices. This was why the company, under a new CEO, soon announced a renewed emphasis on product design to infuse innovativeness into the products it was supplying to the market. Hence the company should go back to product customization which had been the source of much of its earlier market success instead of pursuing the mass production of standardized products which led it to be accused of 'tunnel vision with its sales model'.

Thus the appropriate competitive strategy to stem the loss of competitiveness which Dell was experiencing should be the differentiation-focus strategy which should meet the needs of its market and ensure customer satisfaction. This strategy helps the organization to be unique by providing innovative products to its chosen market segment.

- b. Sources of Company Competitive advantage
- i. Quality products in many consumer and industrial markets
 - Product innovation skills
 - ii. Respected name among buyers of its products
 - distinctive competence
 - iii. Financial power
 - Cost advantage
 - Well-conceived financial area strategies
 - iv. Technical leadership in many sectors
 - acknowledge market leader
 - v. Superior and Skilled Human Capital
 - proven management and
 - good competitive skills
 - vi. Access to economies of scale

- c. The IT industry is a very technological intensive industry where innovation in terms of processes and products is the major source of competitive advantage. There has been and continues to be a lot of changes in this industry in terms of product range and features which are important to the customers. Dell was mainly selling its products over the Internet and telephone networks, which means that Dell's business model and competitive strategy were anchored on the utilization of IT. Without IT, Dell would not be able to reach its target market or its customers to reach the company. All the products which Dell was producing were for the IT industry and the company relied mainly on system installers to install its products at customers' premises. Hence the developments in IT influenced both the choice and implementation of its competitive strategy.
- d. Dell never intended to become a high-technology company but it relied mainly on sales and logistics to serve its target market. More of its new product lines like servers and printers which accounted for the bulk of its sales were experiencing a slowing down of sales growth, a sign that competitors were enjoying a bigger market share than the company. Even its margins were being eroded by competitors as a result of reductions in both cost advantage and price advantage.

But now its founder, Michael Dell, is being called the Henry Ford of the information age to indicate how the company is strongly dependent upon IT and hence any technological change in that industry does seriously affect both the efficiency and effectiveness of the company. For example, the company has relied extensively on Intel chips and sales are direct to customers, typically over the Internet or telephone. Together with a telephone helpline, this alleviates the need for middlemen and the consequential distributor margins. Dell builds to order and carries very little inventory of finished products. This cannot happen effectively without strict attention to detail and constant process re-engineering which is required to adjust to constant technological change. The assembly time for a PC was reduced to 4 minutes, with a further 30 seconds allowed to fix the holograms and logos for Microsoft and Intel, which are necessary due to technological change. These improvements are needed to enhance both the efficiency and effectiveness performance levels. The company's announcement of a renewed emphasis on product design was aimed at responding to changing circumstances in the industry.

SOLUTION TWO

(a) **Mission Statement**

- A mission statement of an organisation is an explicit sentence that spells out a concept of the business which gives a general purpose of the firm
- It outlines "who we are" "what we do", and "where we are headed to".
- The mission gives a special identity, character and path for development and gives the personality and philosophy of the firm.

Vision Statement

- A Vision Statement is one that communicates both the purpose and values of the organization.
- It communicates the ultimate future desired state of an organization as owners would want stakeholders to experience it.

Difference

Whereas the mission states the **purpose** of the organization, the vision indicates **Where** the organization should be.

(b) **The three aspects of a mission includes:**

(i) **Understanding The Business**

The firm should give an understanding of what business the company is really in. This business definition is influence by 3 factors

(a) Customer needs

What are the need(s) that are being satisfied by the company's offerings? It is necessary for the company to have a customer need profile. It is important to understand these needs clearly.

(b) Customer groups

Whose needs will the company product(s) or service satisfy (Customers) when providing the service or which customers have you targeted for your product(s).

(c) Technologies

These techniques that will be used to satisfy targeted customers and functions that will be performed. In short, how will the customers' needs be satisfied?

(ii) **Deciding When To Change The Mission**

This aspect deals with deciding when to change strategic mission and alter the organization's course. Times and conditions change such as composition of key stakeholders, aspirations levels of managers could alter goal orientation, change product life cycles or even social events which can bring about crises leading a change of the mission may.

(Iii) **Communicating the Mission**

This aspect ensures that the mission is communicated in ways that are clear, exciting and inspiring to all stakeholders. Mission statements should inspire, calling for the best out of company employees and owners. It should use simple, concise terminology repeated over and over in a challenging and convincing fashion.

SOLUTION THREE

- a. The board of directors should:
 - i. Ensure that it is well informed about the company's performance through scheduled meetings, correspondence, and visitations to the company operational areas from time to time;
 - ii. Guide and judge the Chief Executive Officer and other top managers on agreed benchmarks and targets;
 - iii. have the courage to curb inappropriate or unduly risky management actions or strategic moves;
 - iv. Advise shareholders that the Chief Executive Officer is doing what the board expects;
 - v. Provide insight and advice to management; and
 - vi. Be intensely involved in debating the pros and cons of key decisions and action and be able to challenge management on merits and demerits of their strategic moves.

- b. Corporate social responsibility stances companies should have taken inline with Cholera outbreak in Lusaka includes:
 - i. Liaise faire
 - ii. Enlighten self interest
 - iii. Multiple stakeholder obligation
 - iv. Shaper of society

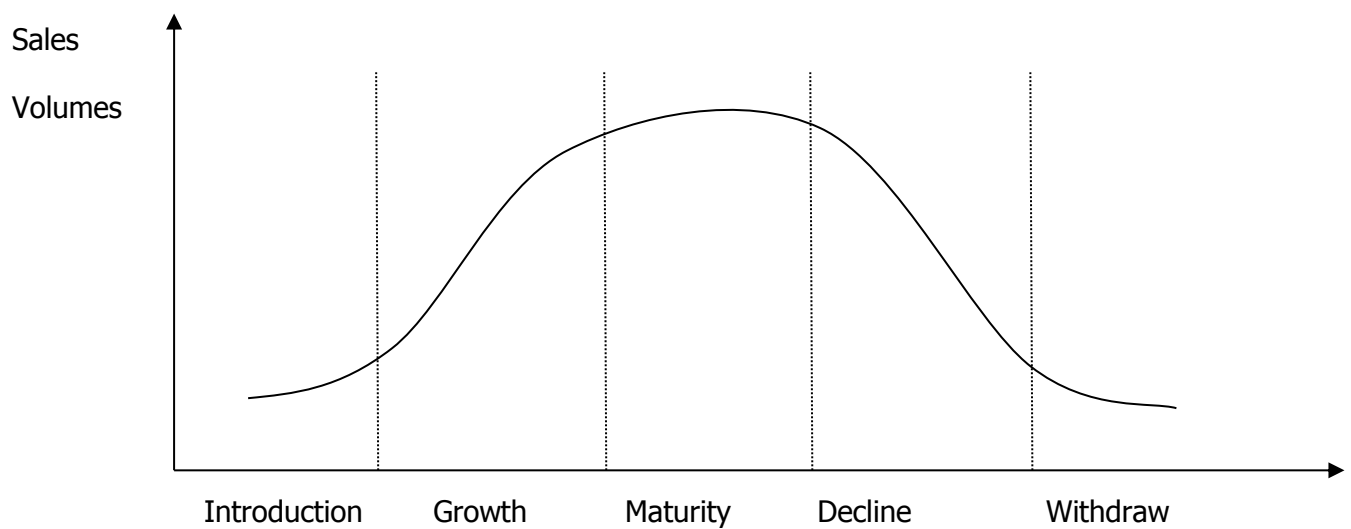
SOLUTION FOUR

- a. The super-premium segment was in the early growth stage with new products being tried using new methods of carton presentation and new high prices. This segment is therefore using the differentiation strategy by using new practices in order to attain uniqueness in terms of products.
1. The premium segment was in the maturity stage of the product life cycle with rampant price wars and the lack of innovation. Since there were few new companies entering the market and the basic product ranges had become established among the leading players, this is an indication of a mature segment. The competitive advantage was in distribution and branding to reach more customers and win them by emphasizing the brands.
2. The regular segment was in the maturity stage with rampant price wars and the lack of innovation. This segment is almost not growing at all hence it is almost entering the decline stage. The appropriate strategy here is the cost leadership strategy so as to cut costs and become competitive using low prices.
3. The economy segment was in the maturity stage since it is almost not growing at all hence it is almost entering the decline stage. Like the regular segment, the appropriate strategy here is the cost leadership strategy so as to cut costs and become competitive using low prices.
- b. For the super-premium segment of the market, the appropriate strategy should be differentiation with focus strategy on the market segment that can afford high prices. Focus should ensure the meeting of the needs of the customers in this segment of the market.
1. For the premium market segment, the appropriate strategy should be the broad differentiation since the basic product ranges had now become established. Since the segment was experiencing rampant price wars, this strategy should ensure optimization of sales volumes in the market.
2. The regular and economy segments require the use of cost leadership to ensure efficiency from cost cutting measures.
- c. For the super-premium segment of the market, the appropriate strategy should be differentiation with focus strategy on the market segment that can afford high prices. Focus should ensure the meeting of the needs of the customers in this segment of the market.
1. For the premium market segment, the appropriate strategy should be the broad differentiation since the basic product ranges had now become established. Since the

segment was experiencing rampant price wars, this strategy should ensure optimization of sales volumes in the market.

2. The regular and economy segments require the use of cost leadership to ensure efficiency from cost cutting measures.

d. Product life cycle diagram



SOLUTION FIVE

(a) Porter (1980) believes there are three generic strategies for competitive advantage to consider. These are:

- (i) **Cost Leadership strategy:** Porter suggests that a cost leadership strategy seeks to achieve the position of lowest cost producer in the industry as whole. By producing at the lowest cost, the manufacturer can compete on price with every other producer in the industry, and earn the higher unit profits. As new business development manager for Zamtel, overall cost leadership can be achieved by using the latest technology to reduce costs and enhance productivity and by minimizing overhead costs.
- (ii) **Differentiation:** A differentiation strategy assumes that competitive advantage can be gained through particular characteristics of a firm's products. This strategy can be used by building up a good brand image and creating a difference that customer can easily experience in the mobile service delivery.
- (iii) **Focus (or niche) strategy:** A focus strategy requires a firm to concentrate its attention on one or more particular segments or niches of the market and does try to serve the entire market with a single product. The advantage of this strategy is that a firm does not spread itself too thinly and a niche is more secure and a firm can insulate itself from competition.

NOTE: Candidates should relate these strategies to Zamtel.

(b) Collaboration is a valid strategic option because of the following reasons:

- (i) Buyers and sellers may collaborate to ensure high quality, share the cost of research or reduce inventory levels.
- (ii) Collaboration between members of a fragmented market increases buyer power as when small retailers co-operate to buy in large quantities.
- (iii) Collaboration between suppliers in an industry over such matters as marketing and research and development can help to build barriers to entry and against substitutes.
- (iv) On the other hand collaboration may be the best way to obtain entry to some foreign markets; aspiring entrants can obtain local knowledge and access to local infrastructure.

- (v) Suppliers may collaborate with consumers for a variety of reasons i.e. assembly of furniture and self-assessment for tax liability.
- (vi) Knowledge sharing may be required in the public sector as a form of best practice. Also collaboration may be required to improve standards.

END OF SOLUTIONS



CHARTERED ACCOUNTANT ZAMBIA

ADVISORY LEVEL – PUBLIC PRACTICE ROUTE

CA 3.4: ADVANCED TAXATION

MARCH 2020

TOTAL MARKS – 100 TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading and planning time. Use it to study the examination paper carefully so that you understand what to do in each question. DO NOT write in your answer booklet during this TIME.
2. This paper is divided into TWO sections: Section A: ONE Compulsory Question. Section B: FOUR (4) Optional Questions. Attempt any THREE (3) questions from section B.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name **MUST** not appear anywhere on your answer booklet.
4. Do NOT write in pencil (except for graphs and diagrams).
5. **Cell phones** are **NOT** allowed in the examination room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. A Taxation table is provided from page 2 to page 6 of the question paper.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

Taxation table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K39,600	first K39,600	0%
K39,601 to 49,200	next K9,600	25%
K49,201 to K74,400	next K25,200	30%
Over K74,400		37.5%

Income from farming for individuals

K1 to K39,600	first K39,600	0%
Over K39,600		10%

Company Income Tax rates

On income from manufacturing and other	35%
On income from farming	10%
On income of Banks and other Financial Institutions	35%
On income from mineral processing	30%
On income from mining operations	30%
On income from manufacture of products made out of copper cathodes	15%

Mineral Royalty

Mineral Royalty on Copper

Range of Norm Price

Less than US\$4,500
From US\$4,500 to less than US\$6,000
From US\$6,000 to less than US\$7,500
From US\$7,500 to less than US\$9,000
From US\$9,000 and above

Mineral Royalty Rate

5.5% of norm value
6.5% of norm value
7.5% of norm value
8.5% of norm value
10% of norm value

Mineral Royalty on other minerals

Type of mineral

Base Metals (Other than Copper, Cobalt and Vanadium)
Cobalt and Vanadium
Energy and Industrial Minerals
Gemstones
Precious Metals

Mineral Royalty Rate

5% of norm value
8% of norm value
5% of gross value
6% of gross value
6% of norm value

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance – Plant used normally	25%
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	Used in Manufacturing and Leasing	50%
	Used in farming and agro-processing	100%
Non- commercial vehicles		
	Wear and Tear Allowance	20%
Industrial Buildings:		
	Wear and Tear Allowance	5%
	Initial Allowance	10%
	Investment Allowance	10%
Low Cost Housing (Cost up to K20,000)		
	Wear and Tear Allowance	10%
	Initial Allowance	10%
Commercial Buildings		
	Wear and Tear Allowance	2%
Farming Allowances		
	Development Allowance	10%
	Farm Works Allowance	100%
	Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax	4%
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Presumptive Tax for Transporters

Seating capacity	Tax per annum K	Tax per day K
From 64 passengers and over	10,800	29.60
From 50 to 63 passengers	9,000	24.70
From 36 to 49 passengers	7,200	19.70
From 22 to 35 passengers	5,400	14.80
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.90
Less than 12 passengers and taxis	900	2.40

Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares	5%
Rate of Tax on Realised Value on a transfer or sale of a mining right	10%
Rate of Tax on Realised Value on a transfer of Intellectual Property	5%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged below 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or	Customs	Excise	Customs	Excise

more persons, including the driver	duty K	duty K	duty K	duty K
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0
	Aged below 5 years		Aged 5 years and over	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	Customs duty	Excise duty	Customs duty	Excise duty
	K	K	K	K
Sedans				
cylinder capacity not exceeding 1000 cc	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc but not exceeding 2500 cc	22,561	29,329	18,049	23,463
SUVs				
Cylinder capacity not exceeding 2500 cc	21,057	27,374	9,024	11,732
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	24,065	31,284	13,357	17,598
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463
	Aged below 5 years		Aged 5 years and over	

**Motor vehicles for the transport of goods
-with compression-ignition internal
combustion piston engine (diesel or semi-
diesel):**

	Customs duty	Excise duty	Customs duty	Excise duty
	K	K	K	K
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	21,926	9,501	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	26,311	11,402	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	30,697	13,302	17,541	7,601
Double cabs GVW exceeding 3 tonnes but not exceeding 5 tonnes	30,274	0	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, with spark ignition internal combustion piston engine	30,697	13,302	24,119	10,452

Panel Vans

GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	15,348	6,651	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	17,541	7,601	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	21,926	9,501	17,541	7,601

Trucks

GVW up to 2 tonnes	21,926	9,501	10,963	4,751
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	28,504	12,352	13,156	5,701
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	10,817	8,293
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes	51,898	0	19,461	0
GVW exceeding 20 tonnes, with spark ignition internal combustion piston engine	37,086	28,432	13,907	10,662

Surtax

On all motor vehicles aged more than five (5) years from year of manufacture K2,000

Customs and Excise on New Motor vehicles

Duty rates on:

- Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:
Customs Duty:**

	Percentage of Value for Duty Purposes	30%
	Minimum Specific Customs Duty	K6,000
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	
	Cylinder capacity of 1500 cc and less	20%
	Cylinder Capacity of more than 1500 cc	30%
2.	Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:	
	Customs Duty	
	Percentage of Value for Duty Purposes	15%
	Minimum specific Customs Duty	K6,000
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	10%
3.	Buses/coaches for the transport of more than ten persons	
	Customs Duty:	
	Percentage of Value for Duty Purposes	15%
	Minimum Specific Customs Duty	K6,000
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	
	Seating Capacity of 16 persons and less	25%
	Seating Capacity of 16 persons and more	0%
4.	Trucks/lorries with gross weight exceeding 20 tonnes	
	Customs Duty:	
	Percentage of Value for Duty Purposes	15%
	Excise Duty:	
	Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

You should assume that today is 20 December 2018 and that the taxation rules applicable to the tax year 2019 apply throughout.

Malumbo and Lumbani wish to commence in business running a business engaged in manufacturing. They wish to obtain taxation advice to enable them decide whether to trade through a partnership or through a company and how they should extract the profits from the business. Once they have obtained this advice, they will register the appropriate business and commence to trade on 1 January 2019.

Their business is expected to produce an annual turnover of K3,800,000 whether it is run as a partnership or as a company. The net profit as per accounts is expected to be K1,100,000, before deducting payments to Malumbo and Lumbani whether the business is run as a partnership or as a company. All the other expenses that will be incurred and deducted in arriving at the net profit figure given above are allowable expenses for taxation purposes.

Whether the business is run as a partnership or as a company, the following capital expenditure will be incurred in January 2019:

- (1) Manufacturing equipment at a cost of K400,000 will be acquired.
- (2) A second hand factory building will be acquired at a total cost of K800,000. This amount includes the cost of land of K200,000.
- (3) Two Toyota motor cars each with a cylinder capacity of 2,200cc for use by Malumbo and Lumbani will be purchased at a cost of K250,000 each. Each motor car will be for both business and private use. Private mileage will be 50% of the total mileage done in each motor car.

Partnership

If the business is run as a partnership, Malumbo will draw an annual partnership salary of K350,000 while Lumbani will draw an annual partnership salary of K300,000. National Pension Scheme Authority (NAPSA) contributions will not be payable. The balance of the profits or losses will be shared between Malumbo and Lumbani in the ratio 3 : 2 respectively.

Company

If the business is run as a company, the company will be called Praise Ltd. Malumbo and Lumbani will be the sole shareholders and full time working directors of the company. Malumbo will draw a gross annual amount of K350,000 either as a gross salary or as a gross dividend. Lumbani will draw a gross annual amount of K300,000 either as a gross salary or as a gross dividend. NAPSA contributions will be payable where applicable both by each directors and Praise Ltd.

NAPSA Earnings threshold

The NAPSA earnings threshold for the year ending 31 December 2019 is K257,712.

Other information

Both Malumbo and Lumbani have outstanding mortgages on their houses amounting to K300,000 with a remaining term of five (5) years. They have no forms of insurance, and

believe that they should make sure that their wealth and family are protected. They are keen to find out what options they should be considering and a colleague suggested to them that they should use financial planning protection products offered by life insurance companies.

Malumbo and Lumbani will not have other sources of income in the tax year 2019.

Required:

(a) Explain the features of and discuss the personal income tax implications for Malumbo and Lumbani of taking each of the following financial planning protection products:

- (i) Whole of life assurance
- (ii) Family income benefit
- (iii) Permanent health insurance
- (iv) Critical health insurance (8 marks)

(b) Assuming the business is run as partnership; compute the income tax payable by Malumbo and Lumbani. (9 marks)

(c) Assuming the business is run as a limited company and each individual draw gross annual salaries of K350,000 and K300,000 respectively compute:

- (i) the income tax payable and NAPSA contributions payable by Malumbo and Lumbani for the tax year 2019. (5 marks)
- (ii) the income tax payable by Praise Ltd for the tax year 2019. (6 marks)

(d) Assuming the business is run as a limited company and that Malumbo and Lumbani draw gross annual dividends of K350,000 and K300,000 respectively, compute:

- (i) the NAPSA contributions, withholding tax and income tax payable by Malumbo and Lumbani for the tax year 2019. (2 marks)
- (ii) the income tax payable by Praise Ltd for the tax year 2019. (4 marks)

(e) Advise Malumbo and Lumbani on how they should run their proposed business and how they should extract profits from that business. Your answer should be supported by a computation of the net income after statutory deductions under each of the options.

(6 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) Questions out of FOUR (4)

QUESTION TWO

You are employed in a tax practice and you have been provided with the following information relating to two of your firms clients Mpongwe Bank Plc and Nathan Lungu.

Mpongwe Bank Plc

Mpongwe Bank Plc is a Zambian resident bank which was incorporated in 2012. The bank listed its shares on the Lusaka Securities Exchange (LuSE) in 2017 and 40% of the issued share capital are held by indigenous Zambians. The bank generated net income before taxation of K19,800,000 for the year ended 31 December 2019. Included in this figure is dividend income of K30,000 (gross) and royalties of K180,000 (gross). Withholding tax has already been deducted at source.

The only expenses deducted in arriving at the net income before tax include depreciation of K2,170,600, expenditure on entertaining employees of K300,000, expenditure on entertaining suppliers amounting to K1,020,000, irrecoverable loans written off amounting to K5,340,000, increase in general provision for loan losses of K700,000 and general allowable expenses of K12,407,000.

Withholding tax paid on interest income during the tax year 2019 amounted to K2,200,000 whereas the provisional income tax paid for the tax year 2019 amounted to K3,800,000. The only assets qualifying for capital allowances was office equipment which was acquired two years ago at a cost of K2,400,000 and office buildings which were acquired on 30 April 2019 at a cost of K80,000,000.

Future plans

The bank is considering acquiring two motor vehicles at some point in the future which will be provided to the Managing Director and Operations Director on personal-to-holder basis. The vehicles will each have a cylinder capacity of 2,900 cc and will cost K570,000 each. The directors are not sure whether the two vehicles should be motor cars or motor vans.

Nathan Lungu

Nathan Lungu is employed as the Human Resources Manager at Mpongwe bank Plc is. His previous contract expired on 31 August 2019 and upon renewal, the current contract commenced on 1 September 2019. Nathan received his end of contract gratuity on 30 September 2019 and he is now considering investing the whole of his gratuity amount of K250,000 into viable financial investments. He intends to invest in ordinary shares of Zambian resident companies and hold them for two (2) years after which the shares will be sold. He is considering investing in either shares of a company that is listed on the LuSE or Private Company.

Required:

- (a) Advise Mpongwe Bank Plc of the amount of income tax payable by the bank for the tax year 2019. (9 marks)
- (b) Advise the directors of Mpongwe Bank Plc whether, from a company taxation point of view, they should buy motors cars or motor vans. Your answer should be supported by appropriate calculations of additional income tax or reduction in income tax payable. (7 marks)
- (c) Advise Nathan of the taxation implications of investing in each type of securities he is considering. (4 marks)

[Total: 20 Marks]**QUESTION THREE**

For the purposes of this question, you should assume that today's date is 31 October 2020 and that the income tax rates for the tax year 2019 apply throughout.

You are the tax manager of a firm of chartered accountants and your firm has just been approached by LMP Limited to provide tax services after terminating the contract for their previous consultant.

LMP Limited is a Zambian resident manufacturing company owned by two entrepreneurs Jack Mupeto and Philip Lutoshi who are directors of the company. Jack Mupeto recently attended a tax compliance sensitisation workshop where the Zambia Revenue Authority (ZRA) emphasised on the importance of record keeping, prompt submission of tax returns and declaration of the correct amount of income tax. The ZRA also emphasized on the importance of co-operation by taxpayers with ZRA officers during tax audits or tax investigations.

LMP Limited prepared the following statement of profit or loss for the year ended 31 December 2019:

	K
Revenue	971,652
Cost of sales (Note 1)	<u>(447,000)</u>
Gross profit	524,652
Distribution expenses (Note 2)	(219,260)
Administration expenses (Note 3)	(190,400)
Finance costs (Note 4)	(84,652)
Other income (Note 5)	<u>110,450</u>
Profit before tax	140,790
Income tax expense (Note 6)	<u>(49,277)</u>
Profit for the year	<u><u>91,513</u></u>

The following additional information has been provided:

1. Cost of sales include depreciation K122,340 and amortization of intangible assets of K26,200. The balance consists of revenue expenses which are all allowable for tax purposes.
2. Distribution expenses include a salary for the Marketing Manager K100,000, expenditure on entertaining employees of K26,000 and entertaining customers of K30,000. The balance consists of revenue expenses which are all allowable for tax purposes. The Marketing Manager is accommodated in a company owned house for which he pays no rent.
3. Administration expenses include salaries for employees and stationery expenses which are all allowable for tax purposes.
4. Finance costs represent 28% of tax earnings before interest, tax, depreciation and amortization. This figure includes costs of issuing loan notes K5,000, interest on loan notes K6,000 and interest on bank overdrafts K73,652. Loan notes were issued to finance the acquisition of a non-current asset.
5. Other income include rental income of K45,000, Fixed deposit interest income of K51,000 and dividends received from Zambian companies of K14,450. All the amounts represent the actual amounts received. Withholding tax has been deducted at source.
6. Provisional income tax paid for the tax year 2019 amounted to K147,000.
7. The capital allowances on non-current assets have been agreed to be K31,500.
8. Following the sensitisation work conducted by the ZRA, the directors of LMP Limited are concerned that their previous consultant may have mislead them when computing the final taxable profit for the tax year 2019 and suspect that the company may have paid the wrong amount of company income tax for the tax year 2019.

They had presented their previous consultant with the above information relating to the tax year 2019 and requested for help in computing the final amount of company income tax payable for the tax year 2019. The consultant advised the directors not to include some of the income and expenses shown above in the computation of the final tax liability for the company in order to minimise the tax company's tax liability. The consultant accordingly produced a computation showing the final amount of company income tax payable for the tax year 2019 to be only K10,680.

Based on this computation, the directors of LMP Limited accordingly submitted the self-assessment income tax return for the year 2019 on 31 March 2020 and paid the amount of K10,680 on the same date.

9. The Bank of Zambia discount rate should be taken to be 12% per annum where applicable.

Required:

- (a) Explain the difference between a tax audit and tax investigation. (3 marks)

- (b) Produce a computation of the final taxable profit for LMP Limited for the tax year 2019 and advise the directors of the correct amount of the final company income tax payable by LMP Limited for the tax year 2019.
(8 marks)
- (c) Assuming that the amount of the company income underpaid tax you have computed above was paid on 31 October 2020, advise LMP Limited of the consequences in terms of the amount of penalties and interest arising, if any. (3 marks)
- (d) Discuss whether the behavior of LMP Limited's previous consultant is acceptable from an ethical point of view. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

For the purposes of this question, you should assume that today's date is 2 December 2018.

Mateo Walubita is an employee of JAM Logistics Limited, a Zambian resident company engaged in transportation. He is paid an basic annual salary of K180,000 and housing allowance of 10% of his basic salary. He has just been informed that effective 1 June 2019, the conditions of service will change. Under the new conditions of service, Mateo will receive a salary increment of 15% of his annual basic salary and he will continue being entitled to a housing allowance of 10% of his basic salary. Additionally, he will now be entitled to an educational allowance of K15,000 per annum and medical allowance of K3,700 per month. Mateo will also be provided with a personal to holder car which the company will buy at a cost of K130,000. The car will have a cylinder capacity of 2800 cc.

Mateo has always contributed NAPSA at 5% of his gross taxable emoluments. His expenses for 2019 are expected to include school fees for his children of K12,900, professional subscriptions of K3,200 and Pay As You Earn of K40,261 will be deducted from his employment income by his employers.

Angelina Walubita, Mateo's wife, intends to commence business on 1 January 2019. She will be selling auto spare parts to companies and individual customers. She expects her monthly sales to be K54,600, monthly purchases to be K22,000 and operating expenses of K25,000 per month. All the operating expenses will be of a revenue nature and deductible for income tax purposes. She intends to buy a delivery van and office equipment at cost of K80,000 and K25,000 respectively. These assets will be used wholly and exclusively for the purposes of the business.

Angelina attended an entrepreneur's workshop on 30 November 2018 organized by the Zambia Revenue Authority (ZRA) in conjunction with the Zambia Development Agency (ZDA) as she has intentions of investing in a foreign country. The workshop was about taxation and investment policy in which foreign direct investment covering inward investment and outward investment was discussed but Angelina did not fully understand the taxation aspects of foreign direct investment.

Required

- (a) Advise Mateo Walubita of the amount of income tax payable on the employment income he earned in the tax year 2019. (8 marks)
- (b) Explain, to Angelina Walubita, the differences between the taxation of Inward investments and the taxation of Outward investments. (4 marks)
- (c) Advise Angelina Walubita on the type and amount of tax payable for the tax year 2019. Your explanation should include the tax treatment of each of the expenses to be incurred by Angelina during the tax year 2019. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

For the purposes of this question you should assume that today's date is 31 December 2019 and the earnings ceiling for the purposes of NAPSA contributions should be taken to be K257,712.

Computop Limited is a Zambian resident company engaged in the assembly of computers. The company imports computer materials from different parts of the world. On 1 November 2018, Pajan Electronics Inc, a multinational enterprise, acquired 100% of the issued share capital of Computop Limited. Pajan Electronics Inc is resident in a country known as the Republic of Jupita. The currency of Jupita is the Jupitian Dollar (J\$). Pajan Electronics Inc manufactures the materials used for the assembly of different types of computers.

On 1 January 2019, the board of directors of Pajan Electronics Inc directed Computop Limited to buy the computer materials from its parent company, Pajan Electronics Inc. The directive was intended to boost the revenue of Pajan Electronics Inc gain competitive advantage over its competitors. During the year ended 31 December 2019, Computop Limited imported 200,000 carton boxes of computer materials from its parent at a price of J\$15 per carton box. The average open market price of computer materials was J\$13 per carton box during the year. Computop limited's taxable business profit for the tax year 2019 was K216,000. The only other income received by Computop Limited was royalties amounting to K38,250 (net).

Jordan Mapoma is the Chief Executive Officer (CEO) of Computop Limited. He is entitled to an annual salary of K300,000 and housing allowance of 20% of his basic salary. Jordan previously held 15% of the issued share capital of Computop Limited. On the acquisition of Computop Limited, Jordan exchanged his shares in Computop with 5% of the issued share capital of Pajan Electronics Inc. During the tax year 2019, Jordan received dividends from Pajan Electronics Inc amounting to J\$22,080. This amount is net of withholding tax at a rate of 8% deducted in the Republic of Jupita. During the tax year 2019, Jordan paid tax under the Pay As You Earn system of K170,139, professional subscription of K6,700, donation to a local approved public benefit organisation of K5,300 and medical expenses of K7,900. Jordan has always contributed NAPSA at 5% of his taxable emoluments.

For the purposes of income tax, Computop Limited is classified as a manufacturing company and pays Zambian income tax at the rate of 35%. The exchange rate as quoted by the Bank of Zambia and approved by the Commissioner General averaged K11.24 per J\$1.

There is no double taxation agreement between Zambia and the Republic of Jupita. When computing Zambian income tax, credit is available for any foreign tax paid in Jupita.

Required:

- (a) Advise Computop Limited on the tax consequences of the purchase of computer materials from its parent, Pajan Electronics Inc. Your explanation should be supported by appropriate calculations. (4 marks)
- (b) Compute the amount of income tax payable by Computop Limited for the tax year 2019. (6 marks)
- (c) Calculate on the amount of income tax payable by Jordan Mapoma for the tax year 2019. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA3.4 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) The features and personal income tax implications of the protection products are as follows:

- (i) Whole of Life Assurance where the policy provides life protection. The sum assured is payable on death at any time and usually some form of investment benefit will accrue in the form of a surrender value.

The personal income tax implications are that the premiums payable to purchase the product are not tax deductible. The benefits receivable are also not taxable on the individual.

- (ii) Family income benefit is a policy that pays out where the life/lives assured die within the policy term, the benefit being paid as instalments of capital over the remaining policy term. Such a policy might be used where there is a need to keep premiums low or where budgeting for lump sum proceeds would present a problem.

The personal income tax implications are that the premiums payable to purchase the product are not tax deductible. The benefits receivable are also not taxable on the individual.

- (iii) Permanent health insurance policies are designed to provide the policyholder with a benefit if he or she is unable to work through sickness or if he or she needs medical expenses or long-term care.

The personal income tax implications are that the premiums payable to purchase the product are not tax deductible. The benefits receivable are also not taxable on the individual.

- (iv) Critical Illness Insurance

This provides for a lump sum payment on the diagnosis of one of the seven core life threatening conditions, which are cancer, coronary artery bypass surgery, heart attack, kidney failure, major organ transplant, multiple sclerosis and stroke. The policy may also cover other serious conditions as well as including permanent or total disability.

The premiums will not receive any tax relief when he covers himself personally and the benefits will not be taxable.

(b) COMPUTATION OF FINAL TAXABLE INCOME AND INCOME TAX PAYABLE FOR THE TAX YEAR 2019

	K	K
Net profit as per accounts		1,100,000
Less capital allowances		
Manufacturing equipment (K400,000 x 50%)	200,000	
Factory (K600,000 x 5%)	30,000	
Motor cars (K250,000 x 20%) x 50% x2	<u>50,000</u>	
		<u>(280,000)</u>
		<u>820,000</u>

COMPUTATION OF TAXABLE FINAL INCOME TAX PAYABLE FOR THE TAX YEAR 2019

	<u>Total</u> K	<u>Malumbo</u> K	<u>Lumbani</u> K
Partnership salaries	650,000	350,000	300,000
Balance (3:2)	<u>170,000</u>	<u>102,000</u>	<u>68,000</u>
	<u>820,000</u>	<u>452,000</u>	<u>368,000</u>
Income Tax			
On the first K74,400		9,960	9,960
On the balance:			
(K382,600/ K288,600 x37.5%)		<u>141,600</u>	<u>110,100</u>
Income tax payable		<u>151,560</u>	<u>120,060</u>

(c)(i) BUSINESS RUN AS A COMPANY AND EMOLUMENTS ARE DRAWN

INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2019

	Malumbo K	Lumbani K
Gross emoluments	350,000	300,000
Income Tax payable		
On the first K74,400	9,960	9,960
On the balance:		
(K275,600/K225,600 x 37.5%)	<u>103,350</u>	<u>84,600</u>
Income Tax payable	<u>113,310</u>	<u>94,560</u>
NAPSA Contributions payable		
(K257,712 x 5%)	<u>12,886</u>	<u>12,886</u>

(ii) COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K	K
Tax adjusted profit		1,100,000
Add motor car benefits		
Malumbo's motor car	30,000	
Lumbani's motor car	<u>30,000</u>	
		<u>60,000</u>
		1,160,000
Less employee costs		
Malumbo's emoluments	350,000	
Lumbani's's emoluments	<u>300,000</u>	
		(650,000)
Employer's NAPSA contributions (K12,886 x 2)		(25,772)
Less capital allowances:		
Malumbo's motor car (20% x K250,000)	50,000	
Lumbani's motor car (20% x K250,000)	50,000	
Manufacturing equipment (K400,000 x 50%)	200,000	
Factory (K600,000 x 5%)	<u>30,000</u>	
		<u>(330,000)</u>
Taxable profit		<u>154,228</u>
Company income tax payable 35% x K154,228		<u>53,980</u>

(d) BUSINESS RUN AS A COMPANY AND YOU DRAW DIVIDENDS

(i) NAPSA, Withholding Tax and Income Tax payable:

(1) No NAPSA contributions will not be payable because dividends are not earnings for the purposes of NAPSA contributions.

(2) Withholding tax payable = 15% x (K350,000 + K300,000)
= K97,500

(ii) COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K	K
Tax adjusted profit		1,100,000
Add motor car benefits		
Malumbo's motor car	30,000	
Lumbani's motor car	<u>30,000</u>	
		<u>60,000</u>
		1160,000
Less capital allowances:		
Malumbo's motor car		
(20% x K250,000)	50,000	
Lumbani's motor car		
(20% x K250,000)	50,000	
Manufacturing equipment		
(K400,000 x 50%)	200,000	
Factory		
(K600,000 x 5%)	<u>30,000</u>	
		<u>(330,000)</u>
Taxable profit		<u>830,000</u>
Company income tax payable		
(K830,000 x 35%)		<u>290,500</u>

(e) CALCULATION OF INCOME NET OF STATUTORY PAYMENTS UNDER EACH ALTERNATIVE

	Partnership	Company	
	K	Emoluments	dividends
	K	K	K
Profit	1,100,000	1,100,000	1,100,000
Employee's NAPSA contributions	-	(25,772)	
Employer's NAPSA contribution	-	(25,772)	
Income Tax			
- Malumbo	(151,560)	(113,310)	
- Lumbani	(120,060)	(94,560)	
Praise Ltd		(53,980)	(290,500)
Withholding tax			<u>(97,500)</u>
Net income	<u>828,380</u>	<u>786,606</u>	<u>712,000</u>

It will be beneficial to run the business as partnership as this option gives the highest net income.

SOLUTION TWO

(a) Mpongwe bank plc

Income tax payable for the tax year 2019

	K	K
Net income before tax		19,800,000
Add:		
Depreciation	2,170,600	
Entertaining suppliers	1,020,000	
Increase in general provision	<u>700,000</u>	
		<u>3,890,600</u>
		23,690,600
Less:		
Dividends income	30,000	
Royalties	180,000	
Capital allowances:		
Office equipment (K2,400,000 x 25%)	600,000	
Office building (K80,000,000 x 2%)	<u>1,600,000</u>	
		<u>(2,410,000)</u>
Adjusted business profit		21,280,600
Add:		
Royalties		<u>180,000</u>
Total taxable income		<u>21,460,600</u>
Income tax @30%		6,438,180
Less:		
Provisional income tax		(3,800,000)
WHT- on Interest income		(2,200,000)
WHT- on Royalties (K180,000 x 15%)		<u>(27,000)</u>
Income tax payable		<u>411,180</u>

Income tax rate should be reduced by 5% discount as more than one-third (1/3) of the issued share capital is held by indigenous Zambians.

(b) The following are the tax implications arising from the purchase of the motor vehicles:

Motor Cars

- (i) The company will be chargeable to a personal-to-holder car benefit of K40,000 per annum for each car. A total of K80,000 will be taxable.
- (ii) The company will be able to claim capital allowances at the rate of 20% per annum on the cost of the motor vehicles. i.e K570,000 x 2x 20% = K228,000.

(iii) Additional or reduction in income tax payable:

	K
Disallowed car benefit	80,000
Less:	
Capital allowances	<u>(228,000)</u>
Reduction in taxable profits	<u>148,000</u>
Reduction in tax payable @30%	<u>K44,400</u>

Motor Vans

- (i) The company will not be charged to any personal-to-holder car benefit as there is not taxable benefit on motor vans.
- (ii) The company will be able to claim capital allowances at a rate of 25% per annum on cost. i.e $K570,000 \times 2 \times 25\% = K285,000$

(iii) Reduction in income tax payable:

	K
Disallowable car benefit	-
Less:	
Capital allowances	<u>(285,000)</u>
Reduction in taxable profits	<u>(285,000)</u>
Reduction in tax payable @30%	<u>85,500</u>

Advice

The company should buy motor vans because they will be able to save higher taxes compared to motor cars.

(c) The following are the tax implications

Ordinary shares of a LuSE listed company

- (i) The dividends receivable will be subjected to withholding tax at a rate of 0% and this is the final tax. This means that dividends are exempt from tax.
- (ii) On the sale of the shares, property transfer tax is not chargeable as shares listed on the LuSE are exempted from PTT.

Ordinary share of private company

- (i) The dividends receivable will be subjected to withholding tax at a rate of 15% which is the final tax.
- (ii) On the sale of shares, property transfer tax is chargeable at a rate of 5% of the realised value of the shares.

SOLUTION THREE

- (a) A tax audit is an examination of a tax return, declaration of liability or a repayment claim, a statement of liability to stamp duty, or the compliance of a business with tax and duty legislation. A tax audit is carried out in order to establish the correct level of tax liability.

On the other hand, a tax investigation is an investigation conducted when some tax evasion or tax fraud has been reported in connection with a taxpayer. A tax investigation may also be conducted where a taxpayer carrying on business consistently report losses.

- (b) LMP Limited

Income tax payable for the tax year 2018

	K	K
Profit before tax		140,790
Add:		
Depreciation	122,340	
Amortisation	26,200	
Entertaining customers	30,000	
Free accommodation benefit (K100,000 x 30%)	30,000	
Costs of issuing loan notes	5,000	
Interest on loan notes	<u>6,000</u>	
		<u>219,540</u>
		360,330
Less:		
Rental income	45,000	
Fixed deposit interest	51,000	
Dividends	14,450	
Capital allowances	<u>31,500</u>	
		<u>(141,950)</u>
Taxable profit		218,380
Add:		
Bank interest (K51,000 x 100/85)		<u>60,000</u>
Total taxable income		<u>278,380</u>
Income tax @35%		97,433
Less:		
Provisional income tax		(147,000)
WHT- Bank interest (K60,000 x 15%)		<u>(9,000)</u>
Correct income tax refundable		<u>(58,567)</u>

- (c) No penalties will arise on LMP Limited but an income tax refund or credit of K58,567 given that the amount of the provisional income tax paid by the company during the tax year exceeded the actual company income tax liability.
- (d) The behavior of LMP's previous consultant is clearly not acceptable ethically as it is in breach of the fundamental principles of integrity and professional behavior.

Integrity

The principle of honesty and integrity impose an obligation on the practitioner to ensure straight forwardness, fair dealing, a commitment not to mislead or deceive and truthfulness.

This means that a member providing tax services shall ensure that their own personal tax obligations and those of any associated entities for which the member is responsible are properly discharged.

A member providing tax services must not knowingly be associated with reports, returns, communication and information which is believed to be materially false or misleading.

Professional Behavior

Members shall comply with relevant laws and regulations to avoid any action that discredits the profession.

Members shall act in a manner consistent with the good reputation of the institute and tax profession, refraining from any conduct that might bring the institute and/or tax profession into disrepute.

Members should conduct themselves professionally with due consideration towards clients, third parties, other members of the tax professional, staff, employees and general public.

SOLUTION FOUR

(a) MATEO WALUBITA

PERSON INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K
Salary ($K180,000 \times 5/12$) + ($K180,000 \times 115\% \times 7/12$)	195,750
Housing allowance: ($K195,750 \times 10\%$)	19,575
Education allowance ($K15,000 \times 7/12$)	8,750
Medical allowance ($K3,700 \times 7$)	<u>25,900</u>
	249,975
Less:	
Professional subscription	<u>(3,200)</u>
Taxable income	<u>246,775</u>

Income Tax

First K74,400	9,960
Balance K172,375 @37.5%	<u>64,641</u>
Income tax liability	74,601
Less:	
PAYE	<u>(40,261)</u>
Income tax payable	<u>34,340</u>

(b) Inward Investments

This is a type of foreign direct investment made when a foreign multinational enterprise invest in Zambia.

The whole amount of the business profits arising from the operations of the company, if it set up a permanent establishment in Zambia, is taxable in Zambia subject to any double taxation relief.

Outward Investments

This is a type of foreign direct investment made when a Zambian multinational company invests in a foreign country.

The company is taxable, if it remains a resident for tax purposes, on its income from foreign operations subject to any double taxation conventions.

- (c) Angelina's annual turnover is expected to be K655,200 ($K54,600 \times 12$). This amount is less than K800,000, as a result she will be required to pay turnover tax. The turnover tax will be payable on a monthly basis at a rate of 4% and is due on the 14th day of the following month.

The total tax payable by Angelina for the tax year 2019 will be:

Monthly turnover tax: $K54,600 \times 4\% = K2,184$

Total turnover tax = $K2,184 \times 12 \text{ months} = K26,208$ or $K655,200 \times 4\% = K26,208$

The purchases of K264,000 (K22,000 x 12 months) and operating expenses of K300,000 (K25,000 x 12 months) will not be deductible for the purposes of calculating turnover tax as it is calculated on the gross earnings.

No capital allowances will be claimed for the tax year 2019 as the only tax payable by Angelina is the turnover tax which is calculated on the gross earnings.

However, capital allowances will be computed notionally to keep the income tax values up to date as follows:

	Cost/ITV K	Notional allowances K
Delivery Van		
Cost	80,000	
Wear & Tear @25%	<u>(20,000)</u>	20,000
ITV c/f	<u>60,000</u>	
Office Equipment		
Cost	25,000	
Wear & Tear @25%	<u>(6,250)</u>	<u>6,250</u>
ITV c/f	<u>18,750</u>	
Total capital allowances		<u>26,250</u>

SOLUTION FIVE

- (a) When Computop Limited purchased the computer materials from its parent at a price higher than the open market price, the taxable business profit of Computop Limited is reduced by the difference between open market value and the value at which the materials were acquired from the parent.

	K
The taxable business profit was reduced by:	
Transfer value of purchases: $200,000 \times \$15 \times K11.24$	33,720,000
Open market value of purchases: $200,000 \times \$13 \times K11.24$	<u>(29,224,000)</u>
Decrease in taxable profit	<u>4,496,000</u>

The difference of K4,496,000 should be added back when computing the taxable business profits for Computop Limited.

- (b) Computop Limited

Income tax payable for the tax year 2019

	K
Business profit	216,000
Add:	
Decrease in business profit (a)	<u>4,496,000</u>
Taxable business profit	4,712,000
Add:	
Royalties ($K38,250 \times 100/85$)	<u>45,000</u>
Total taxable income	<u>4,757,000</u>
Income tax @35% ($K4,757,000 \times 35\%$)	1,664,950
Less:	
Withholding Tax ($K45,000 \times 15\%$)	<u>(6,750)</u>
Income tax payable	<u>1,658,200</u>

- (c) Jordan Mapoma

Income tax payable for the tax year 2019

	K
Salary	300,000
Housing allowance ($K300,000 \times 20\%$)	<u>60,000</u>
	360,000
Foreign income	
Dividends ($\$22,080 \times 100/92 \times K11.24$)	<u>269,760</u>
	629,760
Less:	
Professional subscription	6,700
Donation to local public benefit organisation	<u>5,300</u>
	<u>(12,000)</u>
Taxable income	<u>617,760</u>

Computation

First K74,400	9,960
Balance K543,360@37.5%	<u>203,760</u>
Income tax liability	213,720
Less:	
PAYE	(170,139)
Double taxation relief (w1)	<u>(21,581)</u>
Income tax payable	<u>22,000</u>

Workings

Double taxation relief on Dividends

Foreign tax paid: K269,760 x 8% = K21,581

Equivalent Zambian tax

$$\frac{\text{Gross foreign income}}{\text{Total Assesable income}} \times \text{Zambian tax charge}$$

$$\frac{\text{K269,760}}{\text{K617,760}} \times \text{K213,720}$$

=K93,326

The double taxation relief is K21,581 because it is the lower of the Zambian tax.

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

MARCH 2020

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.
2. This paper is divided into TWO sections:
Section A: One (1) Compulsory scenario question.
Section B: Four (4) Optional scenario Questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This Question is compulsory and MUST be Attempted

QUESTION ONE

Kabusha Legal Consultants Ltd (KLC) was established in 2010 by three former court judges, Daliso Jere (Managing Director), Kabwe Musonda (Operations Director) and Sibanda Tangawira (Finance Director). The company provides advice to its clients in criminal, civil and conflict resolution matters (3 Cs) by offering consultation with specialist staff. Its mission statement talks of excellence in legal consultancy. KLC has twelve (11) full time employed staff and two (2) consultants are sub contracted in the case of overwhelming demand. It is the company policy not to sub-contract high profile jobs.

Following a recent partners' meeting, Daliso has asked for more elaborate performance report from both the operations and finance departments. He mentioned that the company is slowly losing its direction due to not appreciating the critical success factors in consultancy. He believes that the company needs a robust performance management to be put in place.

Sibanda has suggested that the company needs a robust costing system in place so as to address the problems of inadequate information. He added that some of the consultancy processes will have to be reviewed to make them more cost effective, increase gross profit and net profit. The finance director has collated the budget and actual information for the year ending December 2019.

Budget and actual results for the year ended December 2019

	Budget	Actual
Total client enquiries:		
- New business	1,250	2,000
- Repeat business	750	500
Number of client consultations:		
- New business	750	1,000
- Repeat business	600	500
Mix of client consultations:		
- Criminal	450	600
- Civil	600	575
- Conflict resolution	300	250
Number of full time staff employed:		
- Criminal	5	2
- Civil	4	4
- Conflict resolution	2	3
Number of client complaints:	80	150

Additional budget information:

- (i) Staff are each paid a fixed annual salary as follows: criminal K36,000 including sub-contracting costs; Civil K60,000; Conflict resolution K89,000.

- (ii) Each customer enquiry incurs a variable cost of K35, whether or not it is converted into a consultation.
- (iii) Clients are charged a one off consultation fee at the rate of: criminal K850; civil K650 and conflict resolution K1200.
- (iv) Follow up meetings are recommended and provided to civil clients at an average cost to the company of K30 per consultation. Clients are charged for such meetings at cost plus 150% mark-up.
- (v) Annual office rentals: K60,000.

Actual results for the year ending 31 December 2019.

- (i) A civil resolution consultant was sent abroad for further training at a cost of K25,000.
- (ii) The cost on follow-up meetings for civil clients was reduced by 20% through getting rid of "non-value adding activities".
- (iii) A specialised computer software with an annual licence cost of K5,000 was installed.

Required:

- (a) Explain how a mission statement could contribute towards the performance measurement process in KLC. (4 marks)
- (b) Explain the meaning and relevance of the term 'critical success factors' in KLC giving TWO examples of such factors. (5 marks)
- (c) Discuss the four areas (customers, response, process and system) for measurement that KLC should consider when managing for improvement. Assuming that improvement is viewed as a critical success factor in KLC. (8 marks)
- (d) Prepare the performance report for the year ending 31 December 2019 and comment on the performance of KLC. (15 marks)
- (e) Discuss the benefits of Business Process Re-engineering and how such a programme could be implemented at KLC. (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any Three (3) Questions from this section.

QUESTION TWO

Harare Plc (H Plc) is a manufacturer of tools and die machinery. H Plc is a vertically integrated company that is organised into two divisions. The Karoi Steel Division (KS) manufactures alloy steel plates. The Tool and Die Division (TD) uses alloy steel plates to make machines. H Plc operates each of its divisions as an investment centre. In monitoring performance of its divisions, H Plc uses ROI calculated on the following basis.

Parameter	Description
Profit	Depreciation of Non-current asset straight line basis is used. Profit or loss on sale of non-current assets is added to or deducted from operating profit in the year of sale.
Capital Employed <ul style="list-style-type: none">Non-current assetsNet Current assets	Original cost minus accumulated depreciation at the year end. This is valued at average value for the year. Cash is ignored because the bank nets off company balances.

Karoi Steel Division (KS Div.) summary performance for the year 31 December 2019 is as follows:

	K'000
Profit	<u>660</u>
Non-current assets	
– Original Cost	3,000
– Accumulated dep'n as at 31.12.2019	1,440
Net current assets (average for the year)	750

The following additional four independent non routine transactions will be carried out:

- At the beginning of the year KS would buy plant worth K360,000 which would cause costs to reduce by K105,000 per year in revenue costs. This plant would have a life of 5 years after which it would have no scrap value.
- KS could sell at the beginning of the year a non-current asset for K70,000 that originally cost K600,000 and which has been depreciated by 80% of its economic useful life. This asset is expected to earn a profit contribution of K90,000 during 2019 if not sold.
- KS would increase its average inventories by K80,000 throughout the year and reduce by that same amount the dividend payable to the H Plc at the year end. This action is expected to produce an increased contribution of K30,000 due to increased sales.

- (iv) KS would give its customers cash discounts costing K16,000 per year. This would reduce its receivables by K60,000 on average over the year. This amount would be utilised to increase the dividend payable to the shareholders of H Plc at the year end.

The financial controller of H Plc, Mr Hazard Chisamu, has recommended to the board of H Plc that the non-routine transactions should go ahead. H Plc's investment rule is to earn a hurdle rate of 10% discounted cashflow and where no time period is specified, a period of four years should be assumed.

Required:

- (a) You are the Divisional Manager of KS. Recommend whether each of the non-routine transactions above, i.e. (i) to (iv) should independently be carried out.

(10 marks)

- (b) The Financial Controller of H Plc has requested for the following:

- (i) Indicate whether you think there will be goal congruence between KS and H Plc in each of the non-routine transaction, (i) to (iv) above when independently executed. (7 marks)

- (ii) State whether you would agree to a suggestion to substitute the ROI investment rule in place of the current discounted cashflow investment rule. (3 marks)

[Total: 20 Marks]

NB. In each part of the answer, you should give the necessary supporting computations and/or explanations.

QUESTION THREE

Mpongwe is a large area on the Copperbelt but largely sparsely populated. The area is covered with excellent vegetation and large copper reserves.

Kafulafuta Plc is a copper mining company which has received government permission to mine copper. The mining process is a profitable one because the price of copper on the world commodity market has been rising coupled with more efficient cost saving mining methods. The Zambian government quickly granted the permission because most of the people in the area are unemployed and the area has poor gravel roads. Mining would provide jobs and grow the Zambian economy.

However, if the mining process was to go ahead all vegetation would be removed from where mining was to take place and after mining has ceased there will be huge open holes and large contaminated ponds of water. Reinstating the environment by landfill and vegetation planting would render mining unprofitable. A few villagers and economists have opposed the mining project. The Board Chairman of Kafulafuta Plc is eager to learn more on the current developments in modern management accounting practice such as adaptive management process, beyond budgeting and environmental management accounting.

You have glanced through the Kafulafuta's mission statement extract and it reads "we shall attempt to maximise our profit for our shareholders and also consider our wider responsibilities to society".

Required:

- (a) Explain how Kafulafuta Plc when making strategic decision would lay down procedures to follow when considering its general responsibilities to society. (8 marks)
- (b) Discuss two (2) ethical implications of the decision by Kafulafuta Plc to mine copper in Mpongwe. (4 marks)
- (c) Discuss the application of environmental management accounting in an organization such as Kafulafuta Plc. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

Zingxu Plc is a construction firm in Zambia founded by Mao Lee and Fire Tembo in 2010. The company has had problems in assessing its performance. The two founders have been interested in increasing their wealth. Recently they attended an EVA™ master class by the Zambia Institute of Chartered Accountants in Luapula. They were excited about the concept of Economic Value Added such that they immediately tasked the Director of Finance Mulenga Chikwa FZICA to use the data below to evaluate the shareholders' wealthy creation:

	2019 K	2018 K	2017 K	2016 K
Gross Profit	1,517,714	1,062,400	743,680	520,576
Non-Cash expenses	(158,667)	(139,627)	(122,871)	(108,127)
Amortisation of goodwill	(171,667)	(144,200)	(121,128)	(101,748)
Interest @ 10%	(200,000)	(140,000)	(123,200)	(258,720)
Profit before tax	987,381	638,573	376,481	51,982
Tax @ 30%	296,214	191,572	112,944	15,594
Net profit	691,167	447,001	263,536	36,387
Total equity	4,000,000	3,520,000	3,097,600	2,725,888
Long-term debt	2,000,000	1,400,000	1,232,000	2,587,200
	6,000,000	4,920,000	4,329,600	5,313,088

	2019
Capital Structure:	
Debt	20%
Equity	80%
Cost of capital	12%
Capital Employed @ start of year	4,920,000
Non-capitalised leases	235,000
Goodwill written off in previous years	440,000
Tax	30%
Interest	10%

The leases were non-capitalised throughout the year and goodwill was written off against the reserves in acquisitions in previous years.

Required:

- (a) Explain the ethical problems faced in setting organizational measures for performance in a company such as Zinghuxu. (8 marks)
- (b) Evaluate the financial performance of Zinghuxu using EVATM for the year 2016 assuming that its objective is to maximise the shareholders' wealth. (12 marks)

[Total: 20 Marks]

QUESTION FIVE

Insemwa Speciality Foods (ISF) processes kandolo (local dialect for sweet potatoes) into kandolo flakes at its factory in Kitwe. For the past 20 years it processed the kandolo flakes for a small consumer market. But recently it started selling the flakes to large market consumers such as hospitals, schools, restaurants, colleges and universities due to its excellent delicacy and good dietary content. However, market penetration for the large market has been slow.

ISF's current costing system uses a single direct cost category and a single indirect (support) cost. Indirect costs (which include packaging material) are allocated on the basis of kilograms of Kandolo flakes produced.

In the year 2019, the total costs for producing 2 million kg of sweet kandolo flakes (1.8 million kg and 0.2 million kg for smaller and larger markets respectively) were

- Direct material (raw kandolo tubers) K300,000
- Production overheads (support costs) K1,966,000

The current system does not distinguish between small and large markets. Towards the end of 2019 ISF bid for supplying the large market institutions but was unsuccessful. It was later discovered that ISF's bid was 25% above the winning bid.

The bid loss forced ISF to critically evaluate its costing system. One evaluation review conclusion was that K376,000 out of the K1,966,000 total overheads could be reclassified as direct material packaging cost. K376,000 could be allocated to small and large markets as K360,000 and K16,000 respectively. The K300,000 direct material costs were traced to small and larger markets as K270,000 and K30,000 respectively. The company attempted to use activity based costing (ABC) and learned how the small and large Kandolo flakes markets used the overheads differently. The conclusion was that three activity pools could be established and that different resource consumptions in these three areas occurred. The findings are displayed in the table below:

Activity Cost Pool	Market	
	<u>Small (K'000)</u>	<u>Large (K'000)</u>
Washing Kandolo	216	24
Cutting Kandolo	432	30
Packaging Kandolo	864	24

Required:

- (a)
 - (i) Calculate the cost per Kg of Kandolo Flakes based on the current costing system. (2 marks)
 - (iii) Calculate the cost per Kg of Kandolo flakes in the small and large markets using activity based costing. (6 marks)
 - (iii) Comment on the cost differences (refer to the requirements (i) and (ii) above) shown between the current and ABC systems. How might ISF use the information in (ii) above to make better decisions. (4 marks)
- (b) ISF operates in a fast changing environment but its budgetary planning and control systems are fixed and inflexible. The need to comply with a fixed plan and to manage resources allocated more than a year ago, acts as an impediment to ISF managers responding quickly to changes in today's business environment. Consequently they are dissatisfied with the planning and budgeting processes.

Required:

- (i) Outline **THREE (3)** criticisms of traditional budgeting. (3 marks)
- (ii) Explain the term "Adaptive Management (AM)". (2 marks)
- (iii) Discuss the benefits and drawbacks of Adaptive Management (AM)". (3 marks)

[Total: 20 Marks]

END OF PAPER

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I} \right]^{\frac{1}{n}} (1 + r_e) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
 n = number of periods until payment

		<i>Discount rate (r)</i>									
<i>Periods</i>											
(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

		Discount rate (r)									
Periods	(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	2
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	4
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	5
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	6
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	7
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	8
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	9
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	10
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	11
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	12
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103	13
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367	14
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	2
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	3
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	4
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	5
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	6
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	7
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	8
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	9
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	10
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327	11
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	12
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	13
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	14
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	15

CA 3.5 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Mission statement

A mission statement describes the organisation's basic function in society. It may include the purpose, strategy and values of the organisation. It may attempt to incorporate several of the stakeholders.

The mission statement will result in the cascading down of increasingly more detailed plans and targets. These targets will be set for the corporate entity, business sub-units and individuals. They will provide the basis of the performance measurement when they are compared with the outcomes. Good performance might be concerned with the extent that we are achieving the mission, the organisation never gets there, it is more of a journey that should be pursued. Performance is concerned with assessing the extent that a desire, goal, objective or target has been achieved – a comparative judgement. To what extent have we achieved what was set out to be done.

(b) Critical success factors

Critical success factors (CSFs) are those areas in which an organisation needs to perform best if it is to achieve overall success. CSFs have frequently been used to support the 'key indicator' approach to management control. A number of methods have been developed to identify these key indicators, and the CSF approach is one of the most widely used, which should be measured and monitored to help manage the strategic direction of an organization.

The underlying belief is that an effective control system must be tailored to the specific industry in which the organisation operates, and to the specific strategies that it has adopted. It must identify the CSFs that should receive careful and continuous management attention if the organisation is to be successful, and it must highlight performance with respect to these key variables in reports available to all levels of management.

The first concept is frequently approached from the viewpoint of CSFs in that a limited number of areas are identified in which results, if they are satisfactory, will ensure successful performance. They are the few key areas, it is believed, where 'things must go right' if the organisation is to flourish. In turn, each manager must identify the key areas that apply to them, in which results are identified as being absolutely necessary to achieve specific goals. The goals, in turn, support overall organisational goals. The genesis of this approach goes back to the history of warfare, where writers on battles have identified the successful leader as the one who concentrated his forces on the most significant areas.

The examples of CSFs that contemporary major industries include :

- In the automobile industry – styling, an efficient dealer network organisation, tight control of management costs.

- In the food processing industry – new product development, good distribution channels, effective advertising.
- In the life insurance industry – the development of agency management personnel, effective control of clerical personnel, innovative new policies.
- In the supermarket industry – the right product mix available in each store, having it actually available on the shelves, advertising it effectively to pull shoppers in, pricing it correctly (since profit margins were low in this industry).

(c) Areas of improvement

Customers

What matters to customers? Can these things be measured (simply and efficiently)? Do we have any systematic methods for understanding what matters to customers? Do we translate what matters into measures for managing and improving performance?

Response

Can 'what matters to customers' be turned into response measures? Are there other 'end to end' measures that will help the organisation learn about, for example, customer acquisition and the efficiency of services delivered? What processes must be measured end to end? Consider risk management – what events in the outside environment do we need to watch out for? What do we need to know about competitor activity?

Process

What measures might be useful in the processes? Some measures should be permanent and some should be temporary. For example, 'throughput' might be an important permanent measure, and 'waste' a useful temporary measure.

System

How should the above measures fit together to tell managers how they are performing, and how they will perform? Are other whole system measures needed? How well is the organisation integrated into, and monitoring, its external environment?

(d) Kabusha Legal Consultants Ltd – Performance report

To: The Managing Director
 From: Performance expert
 Date: March 2020
 Subject : Performance in KLC

This report analyses the performance of Kabusha Legal Consultants Ltd. It look at both the financial and non-financial factors that could have contributed to the performance of the company.

There was an increase the number new business enquiries by 60%. However despite the increase in the number of enquiries only half materialised into actual consultations. This may be as a result of the prospective clients not being satisfied as evidenced in number of client complaints which was double the expected number and also the company not appreciating the CSFs in consultancy as noted by Daliso Jere.

KLC seem to have maintained the same repeat business queries. This may have a negative impression on the company's performance as it is expected to render a service with value for money.

The actual repeat business queries was less than expected. This may be attributed to the fact that most clients may have not appreciated the services of KLC or stiff competition for civil and conflict resolution clients.

KLC's criminal portfolio has realised more consultations compared to the budget. It has also recorded the highest gross margin because of control and reduced costs. For instance, the number of staff reduced hence the less salaries cost. The conflict resolution portfolio incurred an extra cost of K25,000 in training which was not budgeted for hence the impact on actual profit.

KLC is currently renting an office at K60,000, it should find ways in which to reduce this cost, because in the case that this increases the profits will be further eroded. The management should find alternatives to this rental cost.

KLC managed to record a profit for the year ended 31 December 2019 though it requires some improvements in some areas.

Operating statement for the year ended 31 December 2019

	Criminal	Civil	Conflict resoluti on	Total
	K'000	K'000	K'000	K'000
Budget:				
Client Fess	382.5	390	360	1,132.5
Meetings mark-up (cost x 150%)		27		27
Salaries	(180)	(240)	(178)	(598)
Budget gross margin	202.5	177	182	561.50
Variances:				
Fee income gain/(loss)	127.5	(16.25)	(60)	51.25
Meetings costs saving		4.2		4.2
Meetings mark-up loss		(1.12)		(1.12)
Salaries decrease /(increase)	108		(89)	19
Actual gross margin	438	163.82	33	634.83
Less: company costs:				
Enquiry costs - budget				(70)
variance				(17.5)
Annual rentals				(60)
Computer software				(5)
Training costs				(25)
Actual net Profit				457.32

Signed:

Performance Expert

Workings:

1. Client fees
Mix x fee
Criminal = $450 \times 850 = \text{K}382,500$
Civil = $600 \times 650 = \text{K}390,000$
Conflict = $300 \times 1,200 = \text{K}360,000$
2. Meetings Mark-up (cost x 150%)
Civil = $\text{K}30 \times 1.5 \times 600 = \text{K}27,000$
3. Salaries
Number of staff x salary
Criminal = $5 \times 36,000 = \text{K}180,000$
Civil = $4 \times 60,000 = \text{K}240,000$
Conflict = $2 \times 89,000 = \text{K}178,000$
4. Fee Income gain/(loss)
(Budget – Actual) x fee
Criminal = $(450 - 600) \times 850 = \text{K}127,500$
Civil = $(600 - 575) \times 650 = (\text{K}16,250)$
Conflict = $(300 - 250) \times 1,200 = (\text{K}60,000)$

(e) Business process re-engineering

Business process re-engineering (BPR) is one of the techniques that have been advocated to overhaul existing business processes and practices with a view to improving organizational performance. In this case, the idea is to ask radical questions about why things are done in a particular way, and whether alternative methods could achieve better results.

The management accountant contributes to planning a BPR exercise above all by providing the information required to evaluate alternatives. As mentioned above, the primary purpose of BPR is to investigate different ways in which defined outcomes can be achieved. The effects of each method on costs and profitability will be a key criterion in determining the best option, and the management accountant is well placed to provide such information.

The management accountant will work closely with operational managers to achieve this. By looking at their existing processes, and helping to formulate alternatives, the management accountant will inform himself or herself in detail about what is involved. The task then is to translate this information into financial form. The

methods of reporting on processes may themselves need to be revised as a result: often adoption of BPR has gone hand in hand with a move to activity based costing. As the suggests, BPR is concerned with how processes are to work in practice. In implementing a BPR programme, managers will be concerned to have the appropriate information to enable them to manage new processes. Management accountants can help by reconsidering the form in which reports are presented. In many cases, the required change will be from an emphasis on transactions processing to an emphasis on decision making and control. Underlying all of this should be a focus on customer needs.

Once the appropriate information has been determined, it is equally important to ensure that it is presented appropriately. If the new emphasis is on support for decision making it is essential that managers can appreciate the information and digest it rapidly. User friendliness is an important criterion, and too much detail is as unhelpful as too little.

SOLUTION TWO

The existing ROI should be calculated as a first step because this is the metric used to measure comparative performance. In addition, new investments will only be undertaken if the resulting new ROI is greater than the existing ROI.

All workings in K'000

$$\begin{aligned}\text{Existing ROI} &= \frac{660}{1560+750} \times 100\% \\ &= \frac{660}{2,310} \times 100\% \\ &= \underline{28.57\%}\end{aligned}$$

Transaction 1: Purchase K360,000 Plant

$$\begin{aligned}\text{Profit} &= \text{profit in budget} + \text{reduction in revenue} - \text{depreciation} \\ &= 660 + 105 - 72 \text{ (360/5yrs)} \\ &= \underline{K693}\end{aligned}$$

$$\begin{aligned}\text{Capital employed} &= \text{Existing capital employed} + \text{new fixed asset} - \text{depreciation for year} \\ &= 2,310 + 360 - 72 = 2,598\end{aligned}$$

$$\text{Revised ROI} = 693/2,598 = \underline{26.67\%}$$

Conclusion: the CEO would not accept transaction 1 because the existing ROI would drop from 28.57% to 26.67%

Transaction 2: Sell K70,000 Non-current Asset

80% of the asset economic life has expired. $80\% = \frac{80}{100} = \frac{4}{5}$. The question does not state what the full life was. It can be assumed that the asset was expected to have a five year life in line with the $\frac{4}{5}$ fraction.

Profit = Profit in budget – less on asset sale – lost contribution + savings on depreciation charge

$$\begin{aligned}&= K(660 - 50 \text{ (W.1)} - K90 + K120 \text{ (W.2)}) \\ &= \underline{K640}\end{aligned}$$

$$\begin{aligned}\text{Capital employed} &= \text{Existing CE} + \text{NBV of sold asset.} \\ &= K[2,310 + 0 \text{ (W.3)}]\end{aligned}$$

$$\text{Revised ROI} = \frac{640}{2,310} = 27.71\%$$

Conclusion: ROI has dropped from 28.57% to 27.71%. the CEO would reject this proposal.

Working/Assumptions

$$\text{W.1: NBV} = 20\% \times K600 = K120$$

Sales proceeds K70

∴ loss on sale K50

W.2 Depreciation charge savings:

Five year life assumption : $\frac{K600}{5} = \underline{K120}$

W.3: Budget ROI is based on year end book values. At year end (full five years) NBV will be zero because the last 20% will have been charged.

Transaction 3: Increase Inventories by K80,000

Revised profit = Existing profit + increased contribution

$$= K(660 + 30) = K690$$

Revised CE = Existing CE + Increased Inventories*

$$= K2,310 + K80 = K2,390$$

$$\therefore \text{Revised ROI} = \frac{690}{2,390} \times 100\% = 28.87\%^{\wedge}$$

Conclusion: As the ROI has marginally increased the CEO would go ahead with this investment.

NB: The increase in inventories is financed by a reduction in dividends, i.e. an increase in equity investments. Therefore, the CE increases by the same amount.

Transaction 4: Offer Customers Cash Discount

Revised Profit = Existing Profit – cost of discount

$$= K(660 - 16) = \underline{K644}$$

Revised CE = Existing CE – reduction in receivables

$$= K(2,310 - 60) = \underline{K2,250}$$

$$\therefore \text{Revised CE} = \frac{644}{2,250} \times 100\% = \underline{28.62\%}$$

Conclusion: the revised ROI has increased marginally. The CEO is likely to go ahead with this proposal.

- b) (i) Goal congruence would exist when the CEO's decision is the same as Mr Hazard Chisamu's the financial controller. The cashflow transactions are assumed to be relevant and assumed to occur at the end of the year.

Transaction 1

Year		CF K'000	DF @10%	PV K'000
0	plant	(360)	1.0	360
1 – 4	cost savings	105	3.77	333
	NPV			(27)

Transaction 2

Year		CF K'000	DF @10%	PV K'000
Y0	Sale Proceeds	70	1.0	70
Y1	lost contribution	(90)	0.909	(82)
	NPV			(12)

Transaction 3

Year		CF K'000	DF @10%	PV K'000
1	inventory increase	(80)	0.909	(73)
1-4	increased contribution	30	3.17	95
	NPV			22

Transaction 4

Year		CF K'000	DF @10%	PV K'000
1	Receivables Reduction	60	0.909	54
1-4	Discount costs	(16)	3.17	(51)
	NPV			3

Summary

Transaction	CEO's Decision	Financial Controller's Decision	Goal Congruent/ Incongruent
1	Reject	Reject	Congruent
2	Reject	Reject	Congruent
3	Accept	Accept	Congruent
4	Accept	Accept	Congruent

- b) (ii) KS Ltd should not substitute group ROI investment rule for the DCF rule because of:
- 1) The ROI measure encourages "short-termism". Reason being that the purchase of a new asset often reduces the existing ROI in the short term even though it may be in the best long term interest of the H Plc.
 - 2) ROI does not take into account the time value of money.

- 3) ROI is affected by the financial accounting concept: the profit and capital employed figures are measured in accordance with financial concepts and there are various methods of measuring/treating profit and capital employed values.

SOLUTION THREE

a) Social responsibility and strategic decision making

Ensuring that social responsibilities are routinely considered in strategic decisions is no easy task. For example, closing down a factory causes unemployment: to what extent should management delay the closure because of this; should they offer generous redundancy payments?

- i) One way of recognising social impact is to use the idea of externalities: these are benefits enjoyed by the business which it does not pay for, or costs imposed by the business's activities on others, for which they are not reimbursed (e.g. noise pollution).

Such externalities can at least be considered, and perhaps incorporated in project evaluation; however, such costs are very hard to estimate.

- ii) The business needs also to use ideas of social responsibility in its environmental analysis. After all, it may be wise to make a virtue out of necessity, as good practice might be forced on business by legislation. What pressure groups say now may enter the legislative agenda in future.
- iii) The Public Relations/ marketing aspect needs to be considered, as part of the promotion of corporate image. Consumer boycotts have worked in the United States of America and the UK.
- iv) External consultants and non executive directors can be used to enable the company to incorporate issues of social responsibility in strategic decision making processes.

b) Ethics of mining Copper

Moral issues are judged according to a number of different value systems. The rights of the individual are more heavily supported in some cultures than others, where the rights of the group are given more concern. An example is firearms ownership: In the US, despite the high murder rate, ownership of firearms is seen as an individual right. The immediate past president of the USA, Barak Obama, fought NRA over this issue but he did not succeed. In most other countries (including Zambia), the individual is given no such right, because of the undesirable social consequences.

The ethical issues involved in mining copper are problematic, as several value systems might be in conflict.

- i) The mine will affect the people living in its vicinity. To what extent should their interests be considered? After all, the company will have obtained permission to mine from the Zambian government. In the mining case, the money that Kafulafuta will pay in tax might be regarded by the government of the country as sufficient compensation for the environmental degradation for a remote area and for the discomforting of a few people.

An ethical issue, therefore, relates to the compensation offered to the local residents.

- ii) Non-renewable resources. The extraction of copper is permanent, and unless

recycled, cannot be used again. What is the effect of this on the environment? The issue is whether non-renewable resources are used efficiently. Are alternatives to be developed?

- iii) Has the effect of pollution been considered? Will the polluted pools of water cause health problems to local people and blight the land?

Decades of copper, cobalt, zinc and lead mining in Zambia has left many areas of the country contaminated with poisonous substances. There are examples from similar mining activities in Kitwe, Chingola and Mufulira. Impacts include air pollution from fumes, gases and dust; soil contamination from hazardous effluents; water (surface and ground) pollution from effluents to water ways from mines, plants and dumps; destruction of vegetation and wildlife habitat due to subsidence: deforestation, fumes and direct health hazards.

A result of the mining process is a lot of air pollution in the form of sulphur dioxide which consequently also leads to acid rain. There are many areas in Zambia where vegetation has stopped growing as a result of the pollution. Residents also complain of respiratory and other health problems that are caused by the pollution.

- iv) Irrespective of the substantive issues, ethical questions also affect the conduct of the negotiations itself. In many respects, these are easier to identify.
- 1) Has Kafulafuta been honest in its dealings with Mpongwe residents and negotiators? In other words, has it made the best possible estimate of the, pollution caused, in order to fix a suitable compensation?
 - 2) Has Kafulafuta Plc tried to gain acceptance of its plans by immoral means such as bribery or other 'dirty tricks'?

c) Application of environmental management accounting

Environmental management accounting (EMA) is the identification, collection, analysis and use of two types of information for internal decision making. The first is physical information on the use, flows and rates of energy, water and materials (including wastes). The second is monetary information on environment-related costs, earnings and savings.

EMA addresses the management information needs of managers for corporate activities that affect the environment, as well as environment-related impacts on the corporation. Depending on the type of organisation, environmental impacts could include production effluent, recycling, water and power consumption, and carbon footprint.

Management information could include:

- Identifying and estimating the costs of environment-related activities
- Identifying and monitoring the use and cost of resources such as water, electricity and fuel, so costs can be reduced
- Making sure environmental considerations form part of capital investment decisions

- Assessing the likelihood and impact of environmental risks
- Including environment-related indicators as part of routine performance monitoring
- Benchmarking activities against environmental best practice.

Environmental costs can be categorised as follows:

- **Prevention costs:** costs associated with preventing adverse environmental impacts.
- **Appraisal costs:** costs of assessing compliance with environmental policies.
- **Internal failure costs:** costs of eliminating environmental impacts that have been created by the organisation.
- **External failure costs:** costs incurred after environmental damage has been caused outside the organisation.

What benefits does the practice provide?

- Improving sales or reducing sales erosion: consumer awareness of products and services' environmental impact is increasingly influencing their preferences and buying behaviours.
- Reducing costs: reducing wasteful consumption of input resources has a direct positive impact on reducing costs. Also, improvements to processes can bear down on costs.
- Reducing the cost of failure: investing in processes that reduce the likelihood and cost impact of failure, such as the need to process waste or clean up environmental impacts.
- Improving the image of the organisation: this can enable it to attract better talent, reduce talent attrition and charge higher prices.

Environmental issues need to be **managed before they can be reported** externally, and so changes are needed to management accounting systems.

Management accounting techniques tend to **underestimate** the **cost** of poor environmental behaviour, underestimate the benefits of improvements and can **distort** and **misrepresent** environmental issues, leading managers to make **decisions that are bad** for business and bad for the environment.

Most **conventional accounting systems** are unable to apportion **environmental costs** to products, processes and services and so they are simply **classed as general overheads**. 'Consequently, managers are unaware of these costs, have no information with which to manage them and have no incentive to reduce them.' Environmental management accounting (EMA), on the other hand, attempts to make all relevant, significant costs visible so that they can be considered when making business decisions.

The major areas for the application of EMA are 'in the assessment **of annual environmental costs/expenditures, product pricing, budgeting, investment appraisal, calculating costs and savings of environmental projects, or setting quantified performance targets**'.

Good environmental management can be seen as a **key component of TQM** (objectives such as zero waste). In the same way that organisations adopt total quality management to try to reduce defects in production, environmental quality management could be introduced to focus on the 'continuous improvement' of environmental management. Suitable

environmental performance measures or **targets** will need to be selected to enable a review of environmental performance to be undertaken. For example, performance targets could include: zero spills, zero pollution, zero waste and zero accidents.

Although various classifications have been suggested, 'The most significant **problem** of EMA lies in the **absence of a clear definition of environmental costs**. This means that organisations are not monitoring and controlling such costs.'

SOLUTION FOUR

(a) Ethical problems faced in setting organizational measures for performance

An organisation has to establish its objectives. It need to identify the key factors and processes that will **enable it to achieve those objectives**. These key factors are the critical success factors (CSFs). In effect, the CSFs are the building blocks which will enable an organisation to implement its mission and thereby achieve future success.

However, once an organisation has identified its CSFs, it also needs to know whether it is delivering on them. This is done by using KPIs, which **measure** how well the organisation is performing against its CSFs. The KPIs are the hard data which tells the organisation how well it is performing. KPIs must be measurable.

However, an important point to note about KPIs is that effective KPIs need to tell an organization something about its **performance**, not simply activity levels.

The main objective of Zinghuxu Plc is most likely to increase the founders' wealth. This objective will have to be measured to assess whether it is being achieved.

Ethics may have an impact on strategy in various ways.

(i) In the formulation of strategic objectives, some firms will not consider certain lines of business for ethical reasons.

(ii) External appraisal will need to consider the ethical climate in which the firm operates. This will raise expectations of its behaviour.

(iii) Internal appraisal: management should consider whether present operations are 'sustainable', ie consistent with present and future ethical expectations.

(iv) Strategy selection: management should consider the ethical implications of proposed strategies before selecting and implementing them.

Ethical issues could arise in a wide range of scenarios, including:

Marketing and the marketing mix: for example, there could be ethical issues relating to the products/services being sold, the price at which they are being sold, or the way in which they are being promoted.

Construction: for example, relating to the quality of works being done and environmental ethics, building defective or inherently dangerous infrastructure (such as bridges) or the use of child labour.

Purchasing and procurement: for example, relating to human rights and working practices with supplier firms; or adopting fair contracting terms and conditions with suppliers.

Ethical issues could also arise in relation to payments by companies to officials who have the power to influence purchasing decisions – although if a company tries to bribe an official, its behaviour is likely to be not only unethical but also illegal.

b) EVA Computation

	K	K
NOPAT		
Net profit		691,167
Add back:		
Non-Cash expenses	158,667	
Amortisation of goodwill	171,667	
Interest (net of 30% tax)	140,000	
		470,334
		1,161,501
 Assets		
At start of period		4,920,000
Non-capitalised leases		235,000
Armortised goodwill		440,000
		5,595,000
 Equity (80/100 X 12%)		9.6%
Debt [20/100 X 10%(1- 0.3)]		1.4%
WACC		11%
	K	
EVA™		
NOPAT	1,161,501	
Capital Charge (11% of K5,595,000)	(615,450)	
	546,051	

EVA is positive K546,051 meaning that share holders' wealth is being created.

(i) Advantages of EVA™

- ✓ Real wealth for shareholders. Maximisation of EVA will create real wealth for the shareholders.
- ✓ Less distortion by accounting policies. The adjustments within the calculation of EVA mean that the measure is based on figures that are closer to cash flows than accounting profits.
- ✓ Consistent with NPV. EVA is consistent with the idea of NPV, showing the return on projects in excess of the cost of financing them. Any project which would generate a positive NPV will also increase EVA
- ✓ An absolute value. The EVA measure is an absolute value, which is easily understood by non-financial managers.

SOLUTION FIVE

- i) Cost per Kg using current system

Direct Material	300,000
Production overheads	<u>1,966,000</u>
Total cost	K2,266,000
	÷
Production units (Kandolo flakes)	2,000,000 kg
	= <u>K1.13/kg</u>

- ii)

	Small Market	Large Market
	K	K
Direct Raw Material	0.15	0.15
Direct packaging	<u>0.2</u>	<u>0.08</u>
	0.35	0.23
Production Overheads		
Washing Kandolo	0.12	0.12
Cutting Kandolo	0.24	0.15
Packaging Kandolo	<u>0.48</u>	<u>0.12</u>
	<u>1.19</u>	<u>0.62</u>

Working cost per kg of Kandolo Flakes

	Small	Large
Direct Material $\frac{270}{1,800} / \frac{30}{200}$	K0.15	K0.15
Direct packaging $\frac{360}{1,800} / \frac{16}{200}$	K0.20	K0.08
Washing $\frac{216}{1,800} / \frac{24}{200}$	K0.12	K0.12
Cutting $\frac{432}{1,800} / \frac{30}{200}$	K0.24	K0.15
Packaging $\frac{864}{1,800} / \frac{24}{200}$	K0.48	K0.12

- iii) Summary result analysis – cost/kg

	Small Market	Large Market
	K	K
Existing system	K1.13	K1.13
ABC	<u>K1.19</u>	<u>K0.62</u>
Difference: (Under)/Over	(K0.06)	K0.51

$$\% \left[\frac{0.06}{1.19} / \frac{0.51}{0.62} \right] \quad (5\%) \quad 82\%$$

There is clear evidence of product cost cross subsidisation. As the ABC method is superior to traditional absorption method, small market product is undercosted by 5% and the large one is over-costed by 82%.

The current system assumes that the small and large product markets use all the activity areas in a homogeneous fashion. But this is not true. Large market sales use sizeable fewer resources in the cutting and packaging area.

ISF can use the revised cost information for a number of purposes.

1. Pricing/product emphasis decisions

The sizeable drop in the large market Kandolo suggests that ISF was over-pricing the Kandolo in this market. It lost the bid for the large market product because of this over pricing. With its revised product dropping from K1.13 to K0.62, ISF could have bid a much lower price and still make a profit.

2. Product Design decisions

ABC shows how to reduce the costs of individual products. Examples of revised relative costs in each market are

	Small	Large
Direct Raw Material	12.6%	24.2%
Direct packaging*	16.8%	12.9%
Washing	10.1%	19.3%
Cutting	20.2%	24.2%
Packaging *	<u>40.3%</u>	<u>19.4%</u>
	<u>100.0%</u>	<u>100.0%</u>

It can be seen that packing-related costs make up 57.1% (* 16.8% + 40.3%) of total costs of the small market product line. Design efforts that reduce packaging costs can have a radical effect on reducing total units for this line.

3. Process Improvements

Each activity area is now highlighted as a separate cost. The three overhead cost areas are over 60% of total costs for each product, indicating the upside from improvements in the efficiency of processes in these activity areas.

- b) (i) Criticisms of traditional budgeting.
- Time consuming and costly.
 - Major barrier to responsiveness, flexibility and change.
 - Adds little value given the amount of management time required.
 - Rarely strategically focused.
 - Makes people feel undervalued.
 - Reinforces departmental barriers rather than encouraging knowledge sharing
 - Based on unsupported assumptions and guesswork as opposed to sound, well-constructed performance data.
 - Developed and updated infrequently

- b) (ii) Adaptive Management (AM) provides a framework for managers to access and use research findings to make improvements and structured decisions in the face of uncertainty in environmental systems. It is therefore used to change the system whilst simultaneously learning about it.

Adaptive management processes have been developed in response to uncertainty and a need to protect environmental habitats for future generations; they are especially needed in multi-stakeholder situations. The concept has been further developed in modern times by many theorists who have sought to apply the framework to various environmental issues.

Through AM measurable objectives, known as SMART (specific, measurable, attainable, realistic and time bound) objectives are established. Once these objectives have been set management know what it is they are trying to achieve and they can assess the current status of these objectives and design a way forward.

AM is a system of continuous learning as all actions are considered in the context of previous results and outcomes. Management actions are therefore experiments which strive to improve knowledge of social-ecological dynamics, the results of which are used to achieve future change.

- b) (iii) Benefits of AM

When AM frameworks are implemented collaboratively managers and stakeholders think through what information is needed to assess management progress and researchers learn about what management needs. This means that AM helps to develop problem solving approaches which results in innovative conservation solutions and new levels of management action without increasing costs because resources are targeted towards specifically identified problems.

AM is particularly useful in situations where there is a lack of data because it enables value to be placed on creating knowledge over time.

Drawbacks of AM

It can be challenging to get all stakeholders on board, for example if locals depend on an ecosystem for their livelihood it can be hard to get them to appreciate global concerns.

There is often a significant time lag between implementing a project and reaping the benefits.

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 20 MARCH 2020

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:
Section A: One (1) Compulsory scenario question.
Section B: Four (4) Optional scenario Questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Resent legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.

DO NOT OPEN QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

Doggie Co, an unlisted company, designs and manufactures specialist medical materials. The company was formed five years ago by four friends, who each own 10% of the equity capital, and a consortium of three business angel organisations, who own the remaining 60%, in equal proportions. Doggie Co. is developing a new specialist chemical reagents called 'T-REMOVER', to replace an established reagent, the DENT, which the company has marketed successfully for a number of years. Production of DENT will cease in a year's time whether or not the T-REMOVER is manufactured. Doggie Co. has recently spent K800,000 on research and development relating to the T-REMOVER. Production of T-REMOVER can start in one year's time.

The marketing department have projected that the demand for the T-REMOVER to be 140,000 units per annum for the first three years of production and 63,700 units per annum for the subsequent final two years. The Directors had considered exporting to the other parts of the world. However, they are worried about the economic risk posed by the fluctuation in the exchange rate and the difficulty in quantifying it. The Directors expressed concern about the high general rate of inflation which is likely to continue.

Projected unit revenues and costs for the T-REMOVER, at current prices, are as follows:

	K	K
Selling price per unit (note. 1)		45.00
Costs per unit:		
Materials and other consumables (note.2)	12.00	
Machine depreciation (note.3)	8.04	
Labour (note.4)	8.00	
Other overheads (note.5)	10.20	
		<u>38.24</u>
Profit per unit		<u>6.76</u>

Notes

- (1) The selling price is expected to increase by 10% annually.
- (2) Materials and other consumables are expected to increase by 8% per annum in the first three years and 10% in the final two years.
- (3) A specialised machine will be required to produce the T-REMOVER which is expected to cost K5million at current price. The machine is expected be procured in one year's time (just before production begins). The disposal value for the machine is K600,000 after five years. The management calculated machine depreciation per unit as $K5,000,000 - K600,000 \div 5 = K880,000 \div 109,480 \text{ units} = K8.04 \text{ per unit}$. The price of the machine can be adjusted at 8% per year.
- (4) Each unit of T-REMOVER requires two hours of labour, paid K4 per hour at current prices. The labour force required to produce T-REMOVER comprises six employees, who are at present employed to produce DENT. If the T-REMOVER is not produced, these employees will be made redundant when production of the DENT ceases. If the T-REMOVER is produced, two of the employees will be made redundant at the end of the third year of its life but the company expects to be able to find work for the remaining three employees at the end of the T-REMOVER's five-year life. Any employee who is made redundant will receive a redundancy payment after tax equivalent to 1,200 hours' wages, based on the most recent wage rate at the time of the redundancy. All wage rates are expected to increase at an annual compound rate of 11%
- (5) Other overheads at current prices comprise variable overheads of K4.20 per unit and head office fixed costs of K6.00 per unit, recovered on the basis of labour time. Variable costs are expected to increase by 9% per year.

Other Information

Extract from the most recent Doggie's statement of financial position

	K'000
Non-current assets (revalued recently)	55,460
Current assets	35,940
Total assets	91,400
Share capital (25ngwee per share par value)	11,850
Reserves	45,780
Non-current liabilities (7.5% redeemable bonds)	30,000
Current liabilities	3,770
Total capital and liabilities	91,400

The bonds are redeemable at par in four years and pay the coupon on an annual basis. Although the bonds are not traded, it is estimated that Doggie's current debt credit rating is BBB but would improve to A+ if the investment in T-REMOVER is successful. Doggie's current asset beta is 0.85 and it can be assumed that debt beta is 0. The risk-free rate is estimated to be 9% equivalent to the government bond and the market risk premium is estimated to be 7.5%. The four-year borrowing credit spread on A+ rated bonds is 60 basis points and 90 basis points on BBB rated bonds. The machine attracts 25% writing down tax allowances per annum. Corporate tax is payable one year in arrears at an annual rate of 28%.

Required:

Write a report to the board of directors for Doggie Ltd covering the following:

- i) An evaluation of the investment in T-REMOVER using the Net Present Value (NPV) method. (20 marks)
- ii) Discussion of the other factors that should be considered before the decision to investment in T-REMOVER is made. (8 marks)
- iii) Explanation of the reasons exposure to economic risk as a result of exchange rate fluctuations is hard to quantify. (8 marks)

NB: Professional marks to be awarded for the report format and coherence of ideas. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

IDC Co is a very successful entity. The company has consistently followed a business strategy of aggressive acquisitions, looking to buy companies that it believes were poorly managed and hence undervalued. IDC can be described as a modern day conglomerate and its business interests stretch far and wide.

Its board of directors has chosen the takeover targets with care. Always looking for companies with potential, but which were poorly managed and having a below par market value, IDC has maintained its price earnings (P/E) ratio on the stock market at 12.2.

IDC's 2018 figures show a profit after tax of K886m and it has 375m shares in issue.

ZEC is a well-established owner-managed business. In financial terms it has a rather fair history with its up and downs corresponding directly with the state of the global economy. Since 2013, its profits have fallen each year with the 2018 values standing at:

	Km
Revenue	1,500
Operating profit	480
Interest	(137)
Profit before tax	343
Taxation @ 25%	(86)
Profit after tax	257
Number of shares in issue	150m
EPS	K1.72

However, following the financial analyst's prediction of an upturn in the Western economies, the management team of ZEC feels that revenue will increase by 6% per annum up to and including 2022. The company's operating profit margin is not expected to change for the foreseeable future.

Operating profits are shown after deducting non-cash expenses (including tax allowable depreciation) of K125m. This is expected to increase in line with sales. However, the company has recently spent K210m on purchase of non-current assets. ZEC's management believes this value will have to increase by 10% per annum until 2022 to enable the company to remain competitive. ZEC has estimated its overall cost of capital to be approximately 12%, but this assumes it will maintain its debt to equity ratio at 40:60.

Some of ZEC's major shareholders are not so confident about the future and would like to sell the business as a going concern. The minimum price they would consider would be the fair value of the shares, plus a 10% premium. ZEC's Finance Director believes the best way to find the fair value of the shares is to discount the forecasted free cash flows of the firm, assuming that beyond 2022 these will grow at a rate of 3% per annum indefinitely. ZEC is a member of the Development Agency and therefore pays tax at 25% as opposed to the higher rate of 35%. IDC intends to make an offer to ZEC based upon a share for share swap. IDC will exchange one of its shares for every two ZEC shares.

Required:

- (a) As at 1 January 2019, prepare a schedule of ZEC's forecast free cash flows for the firm. Ascertain the fair value of the ZEC's equity on a per share basis. State any assumptions you make. (10 marks)
- (b) Assuming that IDC can maintain its earnings rating at 12.2, calculate the percentage gain in equity value that will be earned by both groups of shareholders following the acquisition. (7 marks)
- (c) Explain three (3) factors that the ZEC shareholders should consider before deciding whether to accept or reject the offer made by IDC. (3 marks)

[Total: 20 Marks]

QUESTION THREE

The Government of Zambia has three bonds in issue that all have a face or par value of K1,000 and are redeemable in one year, two years and three years respectively. The bonds are all government bonds, assumed to be of the same risk class, and the coupons are payable on an annual basis. The following information about the bonds is available:

Bond	Coupon	Redemption period	Market value
A	7%	1 year	K1,030
B	6%	2 years	K1,020
C	5%	3 years	K980

The coupon rates have been extremely volatile over the past years and the Minister of Finance mentioned of the use of interest rate swaps to manage the risk. Zambia has been dealing with the IMF on a number of funding needs and now wishes to raise K10billion of floating rate finance. The central bank Governor of Zambia has suggested using a 5-year swap to manage any interest rate risk. Zambia has a BBC rating and can issue fixed rate finance at 12.8%, or floating rate at LIBOR +1.35%.

The IMF has identified another country, Austeria which has an ABB credit rating and can raise fixed finance at 11.35%, or floating rate at LIBOR + 0.6%.

A 5 year interest rate swap on a K10 billion loan could be arranged with the IMF acting as an intermediary for a fee of 0.25% pa. The Minister of Finance has stated that Zambia will only agree to the swap if it can make annual savings of at least 0.3%. LIBOR is currently 10.5%.

Zambia wants to borrow at variable rate and Austeria wants to borrow at fixed rate.

Required:

- (a) Calculate the annual spot yield curve for each bond. (6 marks)
- (b) Evaluate whether or not the swap is likely to be agreed. (9 marks)
- (c) Discuss the disadvantages of using interest rate swaps to manage the interest rate risk in the case of Zambia. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

TYK plc is a multinational energy company, with a workforce of nearly 200,000 employees and it operates in over 110 countries. Mostly the company activities include drilling oil, refining oil into different types of fuel and selling fuel through more than 50,000 petrol stations globally. TYK Plc has 200 million shares in issue which are trading at K5.00 on 1 January. During the year TYK Plc raises new equity capital by rights issue in order to finance the construction of 10 more filling stations. The proceeds from the rights issue are K100 million. The investment in the filling stations added K200 million to the organisation's cash flows in present value terms. However, the directors of TYK Plc are concerned that the return on capital employed (ROCE) has decreased from 20% last year to 13% for the current year.

The following reasons were suggested to be behind the reduction in ROCE:

- (i) an increase in the gross profit margin;
- (ii) an decrease in sales revenue;
- (iii) an increase in operating expenses;
- (iv) an increase in amount of inventories held;
- (v) the repayment of a loan at the year-end; and
- (vi) an increase in the time taken for credit customers (trade receivables) to pay.

Required:

- (a) Determine the market value added from the investment in filling stations. (4 marks)
- (b) Taking each of the six suggested reasons above in turn, assess, with reasons, whether each of them could lead to a reduction in ROCE. (8 marks)
- (c) Discuss what ethical issues TYK plc may come across in formulating its:
 - (i) Investment decisions
 - (ii) Financing decisions
 - (iii) Dividend decisions
 - (iv) Risk management policies (8 marks)

[Total: 20 Marks]

QUESTION FIVE

MuZO Plc. is considering two mutually exclusive projects. The first project requires an initial outlay of K10 million and has an expected net present value of K2 million. However, the financial analysts have projected that the economic climate over the next few years is thought to be very risky and the volatility attaching to the net present value of the project is 20%. MuZO Plc is able to delay commencing the project for three years. The government bond interest rate is 6% per annum.

The second project requires an initial outlay of K10million and has the following net cash flows:

Year	1	2	3	4	5
	K'm	K'm	K'm	K'm	K'm
Cash flows	3	4	5	4.2	2.1

MuZO Plc. has an asset beta of 0.86 and pays tax at the rate of 30% per year. The company is financed by both equity and 10%irreedemable debt trading at K110 per 100 nominal. The company gearing level is 30%. The expected market return is 15% per annum. The financing structure is not expected to change significantly following the investment in either project.

Required:

- (a) Estimate the value of the option to delay the start of the first project for three years, using the Black Scholes option pricing model. (10 marks)
- (b) Estimate the project duration for the second project and comment on the results. (10 marks)

[Total:20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d) \frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))} \beta_e \right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))} \beta_d \right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d} \right] k_e + \left[\frac{V_d}{V_e + V_d} \right] k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \times \frac{(1 + h_c)}{(1 + h_b)} \quad F_0 = S_0 \times \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I} \right]^{\frac{1}{n}} (1 + r_e) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate

n = number of periods until payment

		<i>Discount rate (r)</i>									
<i>Periods</i>		1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
(n)											
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

Periods (n)	Discount rate (r)										
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	2
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	4
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	5
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	6
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	7
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	8
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	9
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	10
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	11
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	12
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103	13
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367	14
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	2
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	3
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	4
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	5
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	6
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	7
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	8
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	9
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	10
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327	11
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	12
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	13
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	14
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	15

Standard normal distribution table

	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0.5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0.5.

CA3.6 SUGGESTED QUESTION

SOLUTION ONE

To: The Board of Directors, Doggie Ltd

From: Financial Consultant

Date: xxxxxxxxxxxx

Subject: Report on the investment in T-REMOVER Project

1.1 Introduction

The report highlights the findings of the financial evaluation of the investment in T-REMOVER. It also considers other factors to consider before the final decision to invest in the project. Finally, the report provides an explanation of reasons economic risk may be difficult to quantify.

1.2 Financial Evaluation

Based on the financial evaluation, the project is viable because it gives a positive Net Present Value of **K3.8million** (*see appendix 1*). This means that the investment in T-REMOVER project would increase the wealth of the shareholder by **K3.8million**. However, it's important to consider other factors before making the final investment decision.

1.3 Other factors

i) Inflation and Cash Flow Projections

The existence of high rates of inflation creates problems in investment appraisal by contributing to the uncertainty attached both to the cash flows themselves and the appropriate discount rate. It is unlikely that in any investment appraisal situation each cash flow stream will be affected in the same way by specific price changes. The capital budget must predict as accurately as possible the anticipated level of inflation.

Higher rates of inflation will tend to be more volatile than lower rates, especially as government action will be directed to reducing them. With different inflation rates applying to each item (e.g. materials and labour) the value of an investment could be highly sensitive to changes in those rates. The extent to which the effect of inflation can be passed on by income increases (e.g. raising product selling price) must also become less certain as government controls, competitors' reactions and the elasticity of demand become more important.

ii) Availability of more profitable projects

The project has been appraised in its own right, but it should be compared with alternative uses for the funds employed, particularly if there are constraints on capital or other resources.

iii) Scarcity of resources

The financial evaluation assume that there is no scarcity in supply of the resources used on the project and that demand would not change. However, in reality these variables may change depending on for instance the economic environment.

iv) Risk and uncertainty of estimates

Most of the figures used in the investment appraisal are subject to uncertainty. For instance sales price/sales volume relationship may change depending on the competition or economic environment. The assumption that fixed costs will not change may be unrealistic as the company can for instance employ staff if the demand increase.

v) Government Decisions

There are possibilities the government can change hence change in fiscal policy which may affect the profitability of the project.

vi) Management and labour skills

The calculation assumes that the necessary skills exist for this new project or that they can be quickly acquired without any initial problems. In practice this would be a major factor in the decision.

vii) Technological change

Modern day technology is ever changing and this may render T-REMOVER obsolete before the end of five years.

1.4 Economic Risk

Nature of economic risks Economic risks are the risks of exchange rate changes reflecting future cash flows over the longer-term. They cannot be measured in accounting terms as they cannot be linked to specific transactions (unlike transaction risks) or figures in the accounts (unlike translation risks). Economic risks are linked to movements in exchange rates which are unpredictable. Such risks are particularly affected by (1) Lack of information (about competitors' strategic decisions or future shocks) (2) Lack of certainty about the information that is available (long-term movements in interest and exchange rates).

The following are examples of why economic risk is hard to quantify:

Dependence on strategic decisions

The level of economic risks will be influenced by the strategic decisions made not only by the business itself to maximise its competitive position, but also the decisions made by its competitors. These decisions may be difficult to predict.

Interest and inflation rates

Changes in rates will impact upon future exchange rates, but these may be difficult to forecast over the longer-term. **Impact of shocks** Unpredictable events, such as the credit crunch, will also impact upon economic risks. The impact of these is made even more uncertain by the impact of financial contagion, how shocks in one economy will affect others.

Impact of movements in other exchange rates

The level of economic risks may not just be affected by home currency exchange rate movements. If for example Doggie Co. invoices French customers in €, if the \$ weakens against the €, it will become cheaper for French customers to import from the USA if they can pay in \$. This will apply even if the ZMW/€ rate remains unchanged. Results of changes

in exchange rates If Doggie Co. is paying for its supplies in €, a strengthening of the € may ultimately mean it seeks other suppliers in a different currency zone, with new levels of currency risk.

Dependence on elasticity of different markets

The impact of exchange rate movements will depend on the price elasticity of different markets. This may be difficult to establish, particularly for a company like M that is seeking to establish itself.

Impact of switching costs

Although exchange rate movements may make the prices of the current supplier less attractive, there may be costs of finding and making arrangements with a new supplier, and also greater risks associated with a new supplier.

Natural hedges

The impact of economic risk will also depend on the extent of natural hedging, how much sales can be matched against purchases, investments against financing.

APPENDIX: FINANCIAL EVALUATION OF INVESTMENT IN T-REMOVER PROJECT

Year	1	2	3	4	5	6	7
Selling Price	-	54.45	59.90	65.88	72.47	79.72	-
Materials & Consumables	-	14.00	15.12	16.33	17.96	19.75	-
Variable costs	-	4.99	5.44	5.93	6.46	7.04	-
Contribution per unit		35	39	44	48	53	-
Demand (Units)	-	140,000	140,000	140,000	63,700	63,700	-
Contribution before labour costs	-	4,964,845	5,507,507	6,108,199	3,060,930	3,371,139	-
Labour costs (W.1)	-	1,380,400	1,531,600	1,699,600	858,676	952,952	-
Taxable Cash flow	-	3,584,445	3,975,907	4,408,599	2,202,254	2,418,187	-
Tax@28%	-	-	(1,003,644)	(1,113,253)	(1,234,407)	(616,631)	(677,092)
Rendundancy costs (W.2)				(29,147)			
Rendundancy costs avoided (W.2)		70,969					
Tax Savings (W.3)	-	-	378,000	283,500	212,625	142,383	310,406.25
Initial Investment	(5,400,000)					600,000	
Net Cash flow	(5,400,000)	3,584,445	3,350,262	3,549,698	1,180,471	2,543,938	(366,686)
Discount @14%	0.877	0.729	0.675	0.592	0.519	0.456	0.400
Present Values	(4,735,800)	2,613,060	2,261,427	2,101,421	612,664	1,160,036	(146,674)

NPV **K3,866,134**

Workings:

<u>1. Labour</u>	1	2	3	4	5	6
Unit cost (2 x K4) by 11%p.a	-	9.86	10.94	12.14	13.48	14.96
Demand (Units)	-	140,000	140,000	140,000	63,700	63,700
	-	1,380,400	1,531,600	1,699,600	858,676	952,952

2. Rendundancy

Costs

Rendundancy
Payment

K12.14 x 1,200hrs x 2
29,146.95

Rendundancy
avoided

K9.86 x 1200hrs x 6
70,968.96

3. Capital

Allowances:

Year	WDV	<u>CA@25%</u>	<u>Tax Savings</u> <u>@28%</u>	Year available
2	5,400,000	1,350,000	378,000	3
3	4,050,000	1,012,500	283,500	4
4	3,037,500	759,375	212,625	5
5	2,278,125		142,383	6

		569,531		
6	1,708,594			
Less: Disposal value	600,000			
Balancing allowance	1,108,594	1,108,594	310,406	7

4 Cost of Capital

	K	%
Equity (11,850 + 45,780)	57,630	66
Debt	<u>30,000</u>	<u>34</u>
	<u>87,630</u>	<u>100</u>

$$B_a = B_e \times V_e / V_e + V_d(1-t)$$

$$0.85 = B_e \times 0.66 / 0.66 + 0.34(1-0.28)$$

$$B_e = 1.16$$

$$\text{Cost of equity} = 9\% + 1.16(7.5\%) = 17.7\%$$

$$\text{Cost of debt} = 9\% + 0.6\% = 9.6\% \times (1-0.28) = 6.72\%$$

$$\text{WACC} = (17.7\% \times 0.66) + (6.72\% \times 0.34) = 14\%$$

SOLUTION TWO

(a) ZEC – Forecast Free Cash Flows and Value of Equity

	2019 K'm	2020 K'm	2021 K'm	2022 K'm	2023 K'm
Profit	509	539	572	606	
Tax@25%	(127)	(135)	(143)	(152)	
Non cash expenses	133	140	149	158	
Reinvestments	(231)	(254)	(280)	(307)	
FCF	284	290	298	305	314
DF@12%	0.893	0.797	0.712	0.636	7.067
Present values	254	231	212	194	2,219

Total value of the entity = K3,110m

Equity is 60%; K1,860m

Per share value would be K1,860m/150m = K12.44 per share

Notes and explanations:

1. As we are preparing a valuation as at 1 January 2019, there is need to prepare a detailed forecast for the first four years only. After 2022, the FCF of the firm will increase at the rate of 3% per annum. Note that 2018 is the reference point for the information. For example, revenue would have been increased by 6% per annum using the 2018 sales as a base point.
2. The operating margin in 2018 was 32% (480/1,500). This will be maintained for the foreseeable future.
3. One key factor is to ignore the interest payment. FCF for the firm must EXCLUDE interest. This is because the cost of capital used to discount these flows is the company WACC. The WACC takes into account the interest element and its tax benefit.
4. Income tax on company profits is charged at 25%. In this case, it is to be paid in the same year as the profits are earned.
5. The operating profit is after deducting non-cash expenses, which are allowable for taxation. These include tax allowable depreciation. In this question, these expenses will increase in line with sales and they have to be added back after the tax charge has been computed.
6. ZEC needs to set aside cash each year to maintain its non-current asset (NCA) base. The amount of capital expenditure will increase by 10% per annum for the next four years.
Please note that, it has been assumed that the non-cash expenses equal the required investment in NCAs. Hence, the add back and deduction will cancel out.
7. The forecast FCF for the firm is a simple totalling up process for the first four years. After 2022, the FCF are expected to grow at a rate of 3% per annum indefinitely. Therefore, the 2023 value is calculated as K305m x 1.03.
8. As stated in point 3, the relevant discount rate to apply to the FCF of the firm is ZEC's WACC. This has been estimated as 12%. The discount factor for 2023 and beyond must take into account both a 3% per annum growth rate as well as a cost of capital of 12%. The financial mathematics for a delayed perpetuity with an annual growth rate is $(1/(0.12 - 0.03) \times 0.636)$.

9. The value of the entity is the total of the present value of the forecast FCF. However, this amount represents a combination of the debt and equity together. ZEC's equity is equal to 60% of the value of the firm.
10. The question requirement is to ascertain the equity value per share. Therefore, $K1,866m / 150m = K12.44$. This is the fair value of one share of ZEC.

(b) Percentage gain in equity value – both groups of shareholders
the first stage is to compute the current market price per share for IDC Co:

	Km
2018 – Earnings	886
	x
P/E ratio	<u>12.2</u>
Value of equity	<u>K10,809m</u>
No of issued shares	375m
Value per share (Po)	K28.82

IDC Co expects to maintain its P/E ratio after acquiring ZEC. Therefore, the post-acquisition value of the two entities combined together can be ascertained by applying IDC Co's P/E ratio to the sum of the latest earnings of each company. As the P/E ratio of IDC Co (12.2) exceeds that of ZEC (7.23) this is known as 'bootstrapping'.

	Km
IDC Co – 2018 PAT	886
ZEC– 2018 PAT	<u>257</u>
	1,143
P/E ratio – IDC Co	<u>12.2</u>
Post-acquisition value	<u>K13,945m</u>

The purchase is to be funded via a share for share exchange. IDC Co will issue one new share in its company in return for every two shares in ZEC.

IDC Co issued share capital	375m
Additional shares issued (150m/2)	75m
New total issued share capital	450m

The new equity value for a IDC Co share is now $K13,945m / 450m = K30.99$.

IDC Co shareholders' gain $((K30.99 - K28.82) / K28.82) \times 100 = \mathbf{7.53\%}$

To compute the gain for the ZEC shareholders, the candidate must first compute the post-acquisition value of a ZEC share. ZEC shareholders gave up two shares in their company to receive one new IDC Co share. Therefore, the equivalent post-acquisition value of a ZEC share will be $K30.99/2 = K15.50$.

The fair value of a ZEC share, per part (a), was K12.44. Therefore, the ZEC shareholders gain **24.60%**.

(c) Factors to consider – for the ZEC shareholders

There is no one correct answer to this part. As long as the candidate produces a reasonable number of valid points, they will earn decent marks.

- ZEC shareholders wanted a gain of at least 10% on the fair value of the shares. Based upon the figures, they are gaining nearly 25%, which is likely to encourage them to accept the offer.
- The share for share exchange may be beneficial for tax planning. Any capital gain earned on the sale of the shares will be rolled over until the gain is realised in cash.
- ZEC may decide to reject this bid believing that IDC Co will make a more lucrative offer in the future.
- The fair value of the ZEC shares has been based upon forecasts and estimates. Some sensitivity analysis needs to be carried out to ensure the value is robust.
- There is no guarantee that IDC Co can maintain its P/E ratio at 12.2. There may well be an element of dilution given the much lower P/E of ZEC. Hence, the post-acquisition value is then uncertain.
- Not all ZEC shareholders want to sell the company. The constitution of the company may allow the takeover to be blocked unless a certain percentage majority of the shareholders agree.
- ZEC shareholders may also feel that as the economic conditions are improving, their business prospects and value will get better. They may reject IDC Co's approach and stay as an independent company.

SOLUTION THREE

Part a

There are different methods used to estimate a spot yield curve, and the iterative process based on bootstrapping coupon paying bonds is perhaps the simplest to use in this case. Those that used the IRR approach would have taken up more time than necessary.

$$\text{Bond A; } K1,030 = 1,070(1 + r)^1 = 3.74\%$$

$$\begin{aligned}\text{Bond B; } K1,020 &= (K60 \times 1.0374) + (K1,060(1 + r)^2) \\ &= K62.244 + K1,060(1 + r)^2 = 4.94\%\end{aligned}$$

$$\begin{aligned}\text{Bond C; } K980 &= (K50 \times 1.0374) + (K50 \times 1.0494^2) + K1,050(1 + r)^3 \\ K873.07 &= K1,050(1 + r)^3 = 5.96\%\end{aligned}$$

Part b

Austeria	Zambia	Differential	
Fixed rates	11.35%	12.8%	1.45%
Floating rates	L + 0.6%	L + 1.35%	0.75%
Net differential			0.70%
IMF fee			(0.25%)
Net benefit of SWAP			(0.45%)

From the above calculations, it is clear that the SWAP has a net benefit of 0.45%, therefore both parties are likely to benefit if they entered in the SWAP arrangement. However, Zambia is of the view that unless their benefit is at least 0.3%, they will not accept the SWAP. This means Austeria will be left with a benefit of only 0.15%. Considering that all of the comparative advantage in borrowing rests with Austeria, they may not agree to a lower benefit. There is need for Zambia to reconsider their position on the benefit if the SWAP is to go ahead, taking into account the fact that there of a lower credit rating and are the ones in need of the funding. But also if IMF could waiver off the fees, on humanitarian grounds, the 0.25% could be channeled to Austeria, therefore bringing the total benefit to Austeria to 0.4%, which could be acceptable.

Part c

An interest rate swap is an agreement whereby the parties agree to swap a floating stream of interest payments for a fixed stream of interest payments and via versa. There is no exchange of principal.

In this case, the countries involved are termed 'counter-parties'. Swaps can run for up to 30 years, although Zambia is only considering a 5 year borrowing. Swaps can be used to hedge against an adverse movement in interest rates. For example, Zambia issues the K10b floating loan and the Central Bank believes that interest rates are likely to rise over the next five years. He could enter into a five-year swap with a counter party to swap into a fixed rate of interest for the next five years. From year six onwards, Zambia will once again pay a floating rate of interest. A swap can be used to obtain cheaper finance. A swap should result in Zambia being able to borrow what they want at a better rate under a swap arrangement, than borrowing it directly themselves.

However, it also important to note that due to the poor credit ratings, the two countries Austria and Zambia are subjected to high rates of interest. Many developing countries like Zambia have in the past borrowed at very high interest rates that has resulted in such countries facing financial distress. The position of the Minister to want to reduce the costs of borrowing is a good position, considering that other Government bonds are trading around 6% coupon for 3 years.

SOLUTION FOUR

a)

	Km
Market values Opening market value (200m x K5)	1,000
Additional PV of earnings	<u>200</u>
Closing market value	<u>1,200</u>
Increase in total value (as above)	200
Investment from the shareholders	<u>(100)</u>
Market value added	<u>100</u>

b) The effect of each of the changes on ROCE is not always easy to predict.

- i) On the face of it, an increase in the gross profit margin would tend to lead to an increase in ROCE. An increase in the gross profit margin may, however, lead to a decrease in ROCE in particular circumstances. If the increase in the margin resulted from an increase in price, which in turn led to a decrease in sales revenue, a fall in ROCE can occur. A fall in sales revenue can reduce the net profit (the numerator in ROCE) if the overheads of the business did not decrease correspondingly.
- ii) A reduction in sales revenue can reduce ROCE for the reasons mentioned above.
- iii) An increase in overhead expenses will reduce the net profit and this in turn will result in a reduction in ROCE.
- iv) An increase in inventories held would increase the amount of capital employed by the business (the denominator in ROCE) where long-term funds are employed to finance the inventories. This will, in turn, reduce ROCE.
- v) Repayment of the loan at the year-end will reduce the capital employed and this will increase the ROCE, assuming that the year-end capital employed figure has been used in the calculation. Since the net profit was earned during a period in which the loan existed, there is a strong argument for basing the capital employed figure on what was the position during the year, rather than at the end of it.
- vi) An increase in the time taken for credit customers (receivables) to pay will result in an increase in capital employed if long-term funds are employed to finance the receivables. This increase in long-term funds will, in turn, reduce ROCE.

c)

i) Investment decisions

Some environmental investments may not generate a good commercial return (e.g. solar power has taken 30 years to become profit making). Some investments may risk damage the environment (e.g. oil spills, fires at refineries). Some investments generate products that are damaging to the environment (jet fuel etc.). A company may engage in bribery in order to obtain licenses.

ii) Financing decisions

In a case of bad news, TYK may be tempted to suppress bad news at a time that investment is being made in order to raise the finances. Sometimes, managers use too much equity because they prefer not to have the discipline of debt finance.

iii) Dividend decisions

May be too high at the expense of other stakeholders. In 2010, another (real-world) oil company, BP had to suspend their dividend to reflect the impact of the oil spill.

iv) Risk management policies

Preventative maintenance involves shutting down production, this may be neglected if there is pressure to hit profit targets.

SOLUTION FIVE

P_a = Current present values of the project = K10m + K2m = K12m

Exercise Price (P_e) = Capital investment = K10m

Time to expiry(t) = 3 years

Risk free rate = 6% or 0.06

Standard deviation(s) = 20% or 0.2

$$d_1 = \frac{\ln\left(\frac{12}{10}\right) + (0.06 + 0.5 \times (0.2)^2) \times 3}{0.20 \times \sqrt{3}}$$

$$= \frac{0.1823 + 0.24}{0.3464} = 1.22$$

$$d_2 = 1.22 - 0.2 \times \sqrt{3} = 0.87$$

$$N(d_1) = 0.5 + 0.3888 = 0.8888$$

$$N(d_2) = 0.5 + 0.3078 = 0.8078$$

$$c = 12 \times 0.8888 - 10 \times 0.8078 \times e^{-0.18}$$

=K3.92million

The value of the call option to delay is K3.92million and therefore, the full value of the project at the current time is K2million + K3.92million = K5.92million.

b) PROJECT DURATION

Year	1	2	3	4	5
	K'm	K'm	K'm	K'm	K'm
Net cash flow	3	4	5	4.2	2.1
Dis@13%	0.885	0.783	0.693	0.613	0.543
Present values	2.66	3.13	3.47	2.57	1.14
Total PVs	12.97				
Weighted PVs ($t \times Pv$)	2.655	6.264	10.395	10.2984	5.7015
Total	35.31				
Project Duration (35.31/12.97)	2.72	years			

This means that it takes approximately 2.72 years to recover half of the present value of the project's inflows. Duration measures the rate of generating the projects net cash flows. The sooner that positive net cash flows are generated, then the lower the project risk as generally, earlier forecast cash flows are less risky than later ones. It follows that the lower the duration, the lower the project risk. Unlike the payback period, duration includes cash flows earned in every year of the project, rather than just up to the point where the initial investment is paid back

Cost of Capital:

Cost of equity:

$$B_a = B_e \times V_e / V_e + V_d(1-t)$$

$$0.86 = B_e \times 0.7 / 0.7 + 0.3(1-0.3)$$

$$B_e = 1.12$$

$$K_e = 6\% + 1.12(15\% - 6\%) = 16.08\%$$

$$\text{Cost of debt} = \text{Interest}(1-t) / MV_d = 10(1-0.3) / 110 \times 100\%$$

$$= 6.4\%$$

$$WACC = (16.08\% \times 0.7) + (6.4\% \times 0.3)$$

$$= 13\%$$

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 20 MARCH 2020

TOTAL MARKS – 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.
2. This paper is divided into TWO sections:
Section A: One (1) Compulsory scenario question.
Section B: Four (4) Optional scenario Questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must NOT appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted

QUESTION ONE

The Republic of Zambezia (ROZ) is an independent country in Central Africa. This country has seen a decline in the standard of living of its citizens in the last ten (10) years. The country has a debt crisis resulting in donors not willing to give additional debt which the country needs to support its budget.

The Republic of Zambezia approached the World Bank with a view to securing a thirty (30) year loan. High level discussions with the World Bank have been held with no agreement in sight because of the conditions that the World Bank has put across. The major issue that remains unresolved is the establishment of an oversight institution on government expenditure and the requirement that the Republic of Zambezia establishes a Supreme Audit Institution (SAI). The government is not willing to incur additional expenditure through establishing another institution when all government ministries and agencies have internal auditors who provide oversight on the stewardship role of government.

The World Bank has engaged the International Organization for Supreme Audit Institutions (INTOSAI) to set up a committee of experts from member countries whose role will be to evaluate transparency and accountability in the use of public funds in the Republic of Zambezia and the case for the possible establishment of a Supreme Audit Institution (SAI).

The concerns by the World Bank arise from poor accountability in the use of public funds and the following two cases are a case in point:

Operations of the National Airline:

The major disagreement with the World Bank concerns the continued operation of the National Airline of the Republic of Zambezia. The National Airline has been operating at a loss for the past ten (10) years and government has had to keep on injecting funds into the National Airline. The position of the World Bank is that the National Airline should be liquidated because it is a drain on government funds. The government disagrees with this and insists that the country needs a flag carrier. The major source of the financial problems that the National Airline is facing is the misuse of funds by management and government interference in the running of the National Airline.

The World Bank has, as one of the conditions for the loan, requested that a forensic investigation of the operations of the National Airline should be conducted in view of clear abuse of authority by the National Airline's Chief Executive Officer (CEO) who has been Chief Executive Officer (CEO) for the past two (2) years and he is also a close friend of the President of the Republic of Zambezia. The financial statements of the National Airline have been audited by the same firm of accountants for the past ten (10) years. The Minister in Charge of Transport is of the view that there is no need for a forensic investigation to be conducted when the financial statements have been audited by private external auditors over the past ten (10) years. The National Airline has paid large amounts of money in

penalties for not adhering to local and international regulations. The aviation industry is highly regulated.

Utilization of a US government grant of \$5.5Million.

The American government gave the Republic of Zambezia a grant of \$5.5 million for the supply of clean water to a highly populated area in the outskirts of the capital city of the Republic of Zambezia. The only source of water for the community has dried up due to poor rains in the last three (3) years.

The purpose of the grant is to facilitate the connection of the water supply to this community with the water system for the rest of the city. Under the grant conditions, the Ministry of Local government was given the responsibility of managing the grant and that the works were to be contracted to suitable and competent contractors. Non-compliance with grant conditions could result in the grant becoming repayable.

The grant agreement contains an approved budget which specifies how the funds should be used and any variations require approval of the Co-ordinator at the American Embassy. There is a condition in the agreement that before commencement of the work, necessary permission should be obtained from the Zambezia Environmental Management Agency (ZEMA). The American government does not wish to support any activities that cause damage to the environment.

Almost all of the grant has been disbursed but an independent evaluation of the work shows that less than 40% of the expected works have been completed. It is clear that the project will not be completed when the balance of the funding is released.

You are one of the consultants on the team of experts set up by the International Organization for Supreme Audit Institution (INTOSAI) to undertake an assessment regarding the need to establish a Supreme Audit Institution (SAI) in the Republic of Zambezia.

Required:

- (a) Explain the principles of transparency and accountability in the public sector in the Republic of Zambezia. (2 marks)
- (b) Evaluate the need for the establishment of a Supreme Audit Institution (SAI) in the Republic of Zambezia stating four (4) benefits to the citizens of the country having a SAI. (6 marks)
- (c)
 - (i) Explain the meaning of compliance auditing in public sector auditing using the information for utilization of the grant. (4 marks)
 - (ii) Suggest suitable audit work that should be performed in a compliance audit of the water project. (8 marks)

- (d) Discuss the argument that the National Airline should be audited by the SAI despite the fact that it has been audited by private auditors in the past. (4 mark)
- (e) Discuss the requirement by the World Bank that a forensic investigation of the National Airline should be undertaken. (6 marks)
- (f) Using the information for the National Airline, discuss the objectives of financial and compliance audits and state the benefits of conducting both audits at the same time. (10 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE out of FOUR (4) questions

QUESTION TWO

- (a) The following information relates to a newly centralized computerized system for managing all the Weighbridges in the country.

Previously, the Weighbridges operated independently and there was little control and monitoring by the Ministry responsible. The main server is located on the ground floor of the Ministry Headquarters in Lusaka. The security threat at Head Office is high and there have been break-ins in the recent past.

A computer section has been established at Ministry comprising Systems Analysts and Programmers. All the staff in the computer section underwent training conducted by the suppliers of the computer hardware.

After the introduction of the new computer system, a team under the Operations Manager based at the Ministry Headquarters is able to monitor the activities at all the Weighbridges real time. This has improved controls over funds received by the various Weighbridges across the country.

This includes:

1. Being able to see the vehicles as they are being weighed and the actual weights.
2. Seeing all violations arising from overloading. The system automatically raises an invoice for all overloaded trucks.
3. Reconciling the daily collections with the daily banking by the various locations.

The department is in the process of computerizing systems and it is hoped that in the next two (2) years the payroll and procurement systems will be fully computerized. All the application systems will be developed internally by staff in the IT department. The IT staff will also perform program modification as need arises.

The Head of Department has raised some concerns with regards to the newly installed system. He is concerned that there is no fallback system in case of systems failure. He does not wish to have a situation where Weighbridges revert to the use of manual systems in the event of systems failure because the manual systems were prone to fraud and manipulation. He would like to get assurance that systems disruptions will be resolved within the shortest possible time to guarantee continued operations.

Required:

- (i) Distinguish between general controls and application controls in a computerized environment. (2 marks)
 - (ii) Suggest three (3) suitable general controls that may be implemented in the centralized computerized system. (6 marks)
- (b) Kafue Chemicals Ltd is a government owned company under the Industrial Development Corporation (IDC).

The financial statements of Kafue Chemicals Ltd for the year ended 31 December 2018 are due for audit by the Office of the Auditor General (OAG).

Kafue Chemicals Ltd is the main supplier of chemical fertilizers to private distributors in the country and publicly owned co-operatives around the country. The bulk of the chemical fertilizer is supplied on credit and on average the receivables' days are forty five (45). A review of the receivables' age analysis show that supplies to co-operatives have remained outstanding for periods exceeding 120 days.

Kafue Chemicals Ltd imports the bulk of its raw materials most of which have expiry dates. The last time that the company received payment from government, it imported a large stock of raw materials.

You work for the Office of the Auditor General and you have been assigned on the audit of Kafue Chemicals Ltd. You are required to perform the audit in line with International Standards of Supreme Audit Institutions (ISSAIs).

Required:

- (i) Describe two (2) audit risks with regards to accounting estimates in the audit of Kafue Chemicals Ltd. (4 marks)
- (ii) State the audit responses to the risk of accounting estimates in Kafue Chemicals Ltd. (2 marks)
- (iii) Discuss the responsibilities of the management of Kafue Chemicals Ltd and the Public Sector Auditors regarding related party transactions and disclosure. (4 marks)
- (iv) Describe the written representations relating to related parties that the public sector auditors will obtain from management of Kafue Chemicals Ltd as part of audit evidence. (2 marks)

[Total: 20 Marks]

QUESTION THREE

- (a) You work for the International Organization for Supreme Audit Institutions (INTOSAI).

You work in the compliance department which is responsible for assessing compliance with INTOSAI principles by member countries. A peer review was recently carried out on the functioning of the Supreme Audit Institution (SAI) of a member country and you have been presented with the working paper file for your review.

Below is an extract of information gathered with regards to the Supreme Audit Institution (SAI) of the member country:

The Supreme Audit Institution (SAI) was established by the government following a cabinet meeting which resolved to set up the Supreme Audit Institution (SAI). The Supreme Audit Institution (SAI) falls directly under the Ministry of Finance which is responsible for appropriations of public funds.

The Head of the Supreme Audit Institution (SAI) is a former Secretary to the Treasury under the Ministry of Finance. He was appointed to the position of Head of the Supreme Audit Institution (SAI) on account of his many years of experience in the public sector. On an annual basis, the performance of the Head of the Supreme Audit Institution (SAI) is evaluated by a committee of cabinet which recommends contract renewals.

At the end of each financial year, the Supreme Audit Institution (SAI) prepares an audit plan for the following year. This involves determining the subject items that will undergo audit in the following year. Once this plan is approved by Cabinet Office, the Supreme Audit Institution (SAI) is required to perform audits in accordance with the approved plan.

According to a memo from cabinet office to all Controlling Officers, the Supreme Audit Institution (SAI) has the right to perform audits of all institutions and government agencies that are entrusted with the use of public funds except those that deal with matters of national security.

Required:

Evaluate the operations of the Supreme Audit Institution (SAI) of the INTOSAI member country with regards to compliance with the Lima Declaration and give suitable recommendations where necessary. (6 marks)

- (b) A consortium of donors have donated a total of \$2million to assist government alleviate the hunger situation in ten (10) districts in the Southern Province of Zambia. A condition of this donation is that a task force comprising experts in disaster

management and finance be set up and given the mandate to acquire and distribute relief food.

The target of this program is that at least 500 households in each of these districts should benefit from the relief food.

The cost of administering the program will be funded from the same donation and a maximum of \$300,000 has been allocated towards administration costs. The administration cost was arrived at after research by the Ministry of Disaster Management and is supported by an agreed and approved budget. It is expected that the whole program will be completed within a period of three (3) months at which point it will be evaluated by donors and if found to have been carried out efficiently more funding will be made available.

An evaluation of how the program was conducted revealed the following:

1. Out of the ten (10) districts, three districts met the targeted number of beneficiaries.
2. The administration costs exceeded the approved amount of \$300 000. The excess amount was obtained from the funds meant for relief food.

The Director responsible for the program has requested the Office of the Auditor General (OAG) to carry out a performance audit of the activities of the relief food program in the Southern Province.

You have been assigned to carry out the performance audit of the relief food program and specifically to evaluate the validity of the principles of economy, efficiency and effectiveness taking into account the following **five (5) elements** of this program namely the **objective, inputs, processes, outputs** and the **outcome**.

At the end of the performance audit, you will need to write and present a report in which you will state your findings.

Required:

- (i) Discuss the form of report that you will give after a performance audit in comparison with a report arising from a financial audit. (3 marks)
- (ii) Explain, using the information in the question, each of the five (5) elements of the subject matter in a performance audit. (5 marks)
- (iii) Evaluate the achievement of the three (3) principles of economy, efficiency and effectiveness of the relief food program. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

- (a) The Finish government through the Finish International Development Agency funded a government run project.

During the year, auditors from Finland visited Zambia and carried out a performance audit of the project activities. The audit team observed that there was a lot of misapplication and misappropriation of project funds resulting in a total of \$1.2million having been misapplied and misappropriated. The main problem was with regards to procurement of supplies for the project and the team suspected gross mismanagement of project funds.

The following information was established:

The project team comprises the Project Head, the Project Manager and a Finance Officer.

The project has a project vehicle which is supposed to be used strictly for project activities. The remuneration of the Project staff is all inclusive and has no other benefits. It was observed that the Project Manager uses the project vehicle for personal errands contrary to his conditions of service.

The Finance Officer is solely responsible for all the accounting and record keeping. It was observed that bank reconciliations had not been prepared for the previous six (6) months. A check revealed that three (3) cheques shown as unpresented in the last bank reconciliation prepared had not been issued and they were shown as unpresented in order to conceal a suspected fraud. When questioned, the Finance Officer could not give a satisfactory explanation. A review of the personal file of the Finance Officer, revealed that he was not professionally qualified for the job contrary to the information that was submitted to the donor on application for funding. It is suspected that he could have been corruptly employed through payment of a bribe.

The Project Manager is responsible for procurement of supplies. There is an approved list of suppliers from which supplies are purchased. It was noted that one of the suppliers on the approved list is jointly owned by the Project Manager and his close friend. The majority of supplies were bought from the company in which the Project Manager has an interest.

A review and inspection of a sample of Goods Received Notes (GRNs) raised revealed that on a number of occasions the quantity of goods received was less than the quantities invoiced by suppliers. These amounted to \$200,000.

Required:

- (i) Describe three (3) ways in which asset misappropriation may have taken place in the use of project funds. (6 marks)

- (ii) Explain the meaning of bribery, extortion and conflict of interest in the context of corruption fraud giving a suitable example for each. (6 marks)
- (b) You work for the Office of the Auditor General (OAG) and you have been assigned to carry out a financial audit of a publicly owned hospital for the year just ended. The hospital is fee paying and is supposed to be self-sustaining and meet its running costs from medical fees charged.

Going by the previous three (3) year's audit reports by the Office of the Auditor General (OAG) it is clear that there is increased fraud at this hospital and the risk of fraud is considered as a significant risk.

You are at the planning stage of the audit of the public hospital and you are assessing the risk of material misstatement.

Preliminary work performed has revealed that there are poor internal controls at this hospital. Further, employees have not been paid their salaries for many months and they sometimes go without pay for up to three (3) months. There is an increased risk of drugs being stolen by staff and others within the hospital. This could be achieved by stores staff amending the receipt documents to show that lower quantities of drugs were received.

This public hospital has been running at a loss for the past three (3) years and government has no intention to continue funding it in the coming years. Your assessment of the ability of the hospital as a going concern cast significant doubt.

Required:

- (i) Discuss the two (2) fraud risk factors that exist in the above scenario. (2 marks)
- (ii) Discuss your concern that the public hospital may not be a going concern clearly explaining the importance of this assessment. (2 marks)
- (iii) Explain Management's and the Auditor's responsibilities with regards to going concern in accordance with ISSAI 1570: *Going Concern*. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

- (a) Computerization of systems has many benefits to organizations. These benefits do not come without risks to the organizations. There has been a noted increase in computerization of systems in the public sector and the sector faces the risks that come with computerization.

Mafuta Refinery Ltd., a wholly owned government company recently computerized its systems. The company has moved from standalone computer applications to

integrated systems whereby there is a data base from which computer applications are developed.

The company has integrated its systems connecting with external organizations including banks for online banking services. It has also integrated its inventory system with its suppliers and receivables. Payments to suppliers are made electronically based on the outstanding balances and the receivables pay into the bank accounts electronically.

The first audit of the financial statements under a computerized system is about to commence.

You work for the Office of the Auditor General (OAG) and you are leading a team of auditors to carry out a financial audit of Mafuta Refinery Ltd. You would like to make use of Computer Assisted Audit Techniques (CAATs) in the performance of the financial audit of Mafuta Refinery Ltd.

Required:

- (i) Identify and explain two (2) risks faced by Mafuta Refinery Ltd, arising from the computerization of its accounting systems. (2 marks)
 - (ii) Evaluate and explain how the Supreme Audit Institution (SAI) can benefit from the use of Computer Assisted Audit Techniques (CAATs) in the audit of Mafuta Refinery Ltd. (4 marks)
- (b) You have been assigned to the financial audit of Moomba District Council. This will be the first time that Moomba District Council will be subject to an audit by the Office of the Auditor General (OAG).

Moomba District Council maintains financial statements which are prepared in accordance with the provisions of the Local Government Financial Guidelines. The financial guidelines specify the form and content of the Income and Expenditure and Statement of Financial Position Statements that should be prepared.

The main source of revenue for the Moomba District Council are the annual rates that are charged to property owners and levies charged for various services offered by the council.

You are at the planning stage of the audit of Moomba District Council.

Required:

- (i) Identify and explain the three (3) elements of public sector auditing in the audit of Moomba District Council. (6 marks)
- (ii) State any four (4) benefits of planning the financial audit of Moomba District Council. (4 marks)

- (iii) Explain four (4) principles related to audits as per ISSAI 100 that should be followed in the audit of the financial statements of Moomba District Council.
(4 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.7 SUGGESTED SOLUTIONS

SOLUTION ONE:

a) Principles of transparency and accountability:

The principles of transparency and accountability are at the core of public sector audits performed by the Supreme Audit Institution. All those entrusted with the use of public funds are required to be transparent in the use of the funds and they are accountable to the public on how those funds are spent.

Transparency:

This is the principle that those who are entrusted with the use of public funds should be open in terms of how they spend those funds. There should be full disclosure on how public funds are spent so that the interested parties including the public is aware of how those entrusted with the use of public funds perform their duty as stewards.

Accountability:

This is where those who have been entrusted with the use of public funds are accountable on how they have used those funds. The objective is that public funds are supposed to be used in the best interest of the general citizenry. So those entrusted are accountable for their actions to the general citizenry.

b) Need for establishment of a Supreme Audit Institution in the Republic of Zambia:

Governments world over collect taxes and other forms of revenue which funds are used in national development.

Government ministries and other agencies are conferred with the responsibility of managing the public funds in the best interest of the general citizenry. It is important that the spending agencies are monitored in terms of how they fulfill their roles as stewards.

A Supreme Audit Institution (SAI) helps countries in terms helping those responsible for oversight fulfill their responsibilities. The lack of accountability that exists in the Republic of Zambia is justification that there is need for the establishment of a Supreme Audit Institution whose objective will be to hold those charged with the responsibility of collecting and using public funds accountable.

Benefits to citizens of the Republic of Zambia of having a SAI:

1. The general citizenry will be informed of how the people entrusted with the receipt and expenditure of public funds are performing their roles.
2. The very existence of the Supreme Audit Institution (SAI) will deter fraud in that the custodians of the public purse know that they will be checked.
3. The reports by the SAI will enable those with the responsibility of giving oversight on the government to perform their duty as they will have an independent view of how funds have been spent.

4. The existence of the SAI means that there is an independent view on how those entrusted with the use of public funds have performed their work. The SAI although a government agency is 'independent' of the spending agencies.

c) i. Meaning of a compliance audit:

Compliance audits are audits performed by the Supreme Audit Institution(SAI) on a subject matter with a view to determining whether it complies with a given criteria.

The objective of a compliance is to gather evidence on whether the audited entity is following relevant authorities such as laws, legislation, codes or agreed procedures. In this case compliance with the provisions of the grant agreement of the American grant.

ii. Compliance audit – water project:

The subject to a compliance audit in this case is the water project.

The input to this audit is a grant of \$5.5 million given by the American government. The criteria against which actual performance will be measured includes the following matters which form part of the signed agreement:

- The selection of a contractor to carry out the works should be subject to a competitive tender.
In carrying out a compliance audit the public sector auditor will gather evidence that the selection of a contractor was done through tender as per the provisions of the agreement.
- Expenditure should be in line with the approved budget. The public sector auditor will review the actual expenditure of the water project and gather evidence on whether the expenditure is as per approved budget.
- Variations in terms of expenditure out of the budgeted amounts should get prior approval of the project coordinator.
The public sector auditor will verify that any variations of expenditure from budget was duly approved by the Co-coordinator at the American embassy.
- Prior approval of the Zambia Environmental Management Agency must be sought before embarking on the project.
The public sector auditor will seek to obtain evidence that prior permission was granted and this could be done by inspecting the permit issued by the Zambia Environmental Management Agency (ZEMA).

d) Need for Supreme Audit Institution(SAI) to audit the National Airline:

The National Airline has been audited by the same firm of auditors for the past ten years.

Unless there have been rotations of the engagement partners, it is likely that the long association has resulted in familiarity and self-interest threats and therefore affects the objectivity of the auditors.

It is surprising that despite the financial statements of the National Airline having been audited the misappropriation of funds has gone on undetected to the extent that the company is no longer a going concern.

The suggestion that the Supreme Audit Institution (SAI) should perform the audit is therefore justifiable. Further, it should be noted that the Supreme Audit Institution (SAI) has the mandate to perform audits of all institutions in which the government has a stake. In this case the National Airline is wholly owned by the government and so can be audited by the Supreme Audit Institution (SAI) regardless of the fact that it has previously been audited by private external auditors.

e) Justification for need for a forensic audit:

The request for a forensic audit in the operations of the National Airline is valid. This is because the audits of financial statements that have been conducted over the years aimed at the auditors forming an opinion on the financial statements. For this reason, the auditors do not carry out financial audits with a view to detect fraud.

The fact that there is information suggesting that the Chief Executive Officer (CEO) has been involved in abuse of office justifies the need for a forensic audit. It is possible that the Chief Executive Officer (CEO) has gotten away with the abuse of office because of the relationship that he has with the President of the Republic of Zambia.

A forensic audit will be performed with the aim of establishing whether indeed there is wrong doing in the running of the National Airline and because it is wholly owned by the government is in the interest of the general citizenry that a forensic audit is conducted.

f) Objectives of a financial audit:

- The main objective of a financial audit is for the auditor to form an opinion on the financial statements prepared by the audited entity.
- The management of the National Airline is required to prepare financial statements in accordance with the applicable financial reporting framework and the financial statements are relied upon by many stakeholders. The audit gives assurance to users of the financial statements on the credibility of the financial statements.

Objectives of a compliance audit:

Compliance audits are performed by the public sector auditors with a view to establish whether the subject matter has complied with a given criteria.

In the case of a compliance audit on the operations of the National Airline, it will be observed that the National Airline is required to:

- Comply with national and international aviation regulations and
- It has targets of the number of passengers and cargo it should carry each year in order for the business to remain viable.

The fact that the National Airline is having liquidity problems and that it has paid fines for non-compliance with laws suggest that it is not operating as expected. The purpose of a compliance audit of the airline will be to gather sufficient appropriate evidence from the operations of the National Airline that it is compliant with the terms of operating an airline. Based on the finding made the Supreme Audit Institution (SAI) will issue a report in which a conclusion will be reached and recommendations for improvement made.

Benefits of conducting financial and compliance audits at the same time:

- By carrying out the financial and compliance audit at the same time there is efficient use of the resources of the Supreme Audit Institution (SAI) as it does both audits in one visit.
- Performing financial and compliance audits at the same time means that the audited entity will only be visited once and so save the time that would have been spent by a second visit had the two audits been carried out at different times.

SOLUTION TWO

a) Distinction between IT general controls and application controls:

i. General controls:

These are controls that apply across all the entity's IT systems regardless of the applications. These are controls that exist within the environment of the IT of an entity.

In the case of the computerization of the functions of the weighbridges general controls will apply in the environment in which the system operates.

Application controls:

Application controls on the other hand relate to specific applications. For example, these could be controls specific to applications. For example there will be application controls in the intended payroll and procurement systems.

ii. Examples of general controls could include:

Physical security controls:

These are controls aimed at protecting the hardware from catastrophes such as floods, fire or sabotage. Controls could include restriction to access of the computer systems to authorized personnel only as well as the location of the IT systems.

In the case at hand, physical security controls could include securing the computer room with extra security to prevent entry by thieves. The security situation is bad going by the recent break-ins that have been experienced.

Disaster recovery controls:

These controls are aimed at mitigating the effects of loss of data and information on the business.

Controls will include having in place a disaster recovery plan in the case of a major disaster. The aim is to limit the losses that may arise. Controls include backing up all information offsite and entering into arrangements with a company using similar systems in order to use the system in case of disaster.

Program modifications control:

These controls are aimed at protecting the IT system from unauthorized changes to programs. Controls could include a record of all program changes and suitable authorizations and clear segregation of duties between the users, those who change programs and those that authorize the changes.

Systems development controls:

There is a risk that at the systems development stage, the system may be designed to deliberately not achieve the intended purpose. There should be controls with regards to systems development so that the system is tested

and confirmed by users before it can be used and test runs should be made to confirm that new systems meet the objective and all these should be documented.

Access controls:

These are controls restricting access to programs and applications to authorized persons only. This is commonly achieved by the use of access passwords.

Cyber controls:

These are controls that are meant to protect an entity's IT system from cyber-crime which is increasingly a threat to operations of organization. The main control against cyber-crime is restriction of access by ensuring that entity's respond to any new ways of trying to hack the system.

b) i. Accounting estimates risks in Kafue Chemicals Ltd:

Accounting estimates are approximations made by management regarding figures contained in the financial statements. They are an audit risk in that they could be misstated because of management bias in determining the accounting estimates.

The following accounting estimates exist in Kafue Chemicals Ltd:

1. The allowances for receivables:

According to the schedule of receivables the bulk of the receivables are from the sales of fertilizers to co-operatives. Management are required to make estimates on the recoverability of the receivables.

The figure for receivables may be misstated if the allowance for receivables is understated.

2. The provisions for obsolete or expired materials:

The fact that materials imported for the manufacture of fertilizers have expiry period indicates that after expiry the materials may not be used in production.

At the end of each financial year, management are required to make an estimate for obsolete or expired material and provide in the financial statements as necessary.

There is a risk that this estimation may not be carried out as required or the estimates may be understated which will result in an audit risk in that inventory of raw materials will be misstated.

ii. Responses to risks of accounting estimates:

1. Allowances for receivables:

- Obtain a sample of receivables from the age analysis and circularize in order to get third party evidence on amounts owing to Kafue Chemicals Ltd.
- Examine post year end receipts of amounts that were owing at the period end to confirm amounts owing at the period end.
- Obtain written representations from management of Kafue Chemicals regarding amounts owing from co-operatives on recoverability of these long overdue amounts.

2. Provision for obsolete materials:

- Review the inventory count instructions with regards to identifications of slow moving and obsolete stocks.
- Review the extent of material still in stock unused in the post audit period and assess need for making provisions.
- Obtain management representations with regards the provision for obsolete materials.

iii. Responsibilities for related party transactions and disclosures:

ISSAI 1550: Related Parties gives guidance to the public sector auditor with regards related parties and related party transactions.

Management's responsibilities:

International Financial Reporting Standards give guidance to the preparers of financial statements on how related party transactions should be accounted for.

Management is responsible for accounting for related party transactions in accordance with the relevant standards. This responsibility includes the identifications of related parties and disclosure in the financial statements.

The responsibility of the public sector auditors:

The responsibility of the public sector auditors with regards related party transactions is to obtain sufficient appropriate evidence that related parties and related party transactions have been accounted for by management in accordance with applicable accounting standards.

The auditor will also assess the risks of material misstatements of related party transactions and respond appropriately to the assessed risks.

In the case of Kafue Chemicals Ltd it should be observed that the company has significant dealings with companies that are owned by government and hence related parties.

iv. Written representations regarding related parties:

The public sector auditors will get the following written representations from management of Kafue Chemicals Ltd:

- That management has disclosed to the auditor the identity of the company's related parties and the related party relationships and transactions and that
- Management has appropriately accounted for and disclosed the relationships and transactions.

SOLUTION THREE:

a) Compliance with the Lima Declaration:

The LIMA Declaration was issued by the International Organization for Supreme Audit Institutions and contains principles with best practices which should be followed by member countries.

The country in question is a member of INTOSAI and it is expected to adhere to the principles in the LIMA Declaration. An evaluation of the SAI of this country reveals the following deviations from best practice contained in the declaration.

Independence of the Head of the SAI:

This principle requires that the Head of the Supreme Audit Institution (SAI) should be independent in order for them to be objective. They should be guaranteed a tenure of office by the constitution and should not be at risk of dismissal unless under the provisions of the constitution.

In the situation at hand it is clear that the Head of the SAI is not independent of the government and particularly a ministry which will be subject to its audits. The fact that the Head of the SAI is appointed and accountable to the Ministry of Finance means that he loses his independence and subsequently objectivity.

It is recommended that the appointment of the Head of the SAI should be contained in the constitution and should be made by an independent person or organ such as the President and subject to ratification by an independent body.

A broad mandate and discretion:

This principle requires that the Supreme Audit Institution (SAI) should decide on the subject matters that they will audit and they have a wide and broad mandate.

In the case at hand the SAI determines its program but the problem is that it is subject to approval by Cabinet Office which should not be the case.

Best practice requires that the power to decide on subjects to audit should rest entirely on the SAI and possibly this too should be enshrined in the constitution.

Unrestricted access to all documents

To enable him work efficiently the Auditor General should have unrestricted access to records and documentation. All institutions that receive and spend public funds

are subject to public sector audits. This means that the SAI should have access to all documents and records as they see fit.

In this case there appears to be a restriction that the SAI cannot audit institutions that evolve on state security.

It is recommended that matters of security can be dealt with by appropriate staff with requisite security training within the SAI and the SAI must have unrestricted access to all documents and records that they require in the performance of their audits.

Best practice is that such rights should be contained in the constitution of the country in order to guarantee these rights to the SAI.

b) i. Form of performance audit report compared to financial audit report:

The form of report that is issued following a financial audit is a standard form of report which should be in line with the relevant ISSAIs. ISSAIs 1700 and 1705 gives the standard unmodified opinion and the modified opinions respectively.

There is no standard form for a performance audit and the form of report will depend on the scope of the work performed. Normally the following elements form part of a performance audit report:

- Statement of the objective
- Description of the scope of work carried out
- A statement of the audit question, which is basically the purpose of the audit.
- Identification of significant assumptions made by the public sector auditor.
- Contents of the audit findings
- Conclusions and recommendations made.

ii. Elements of the subject matter in a performance audit:

Objective:

The objective of the relief food program that is being supported is to alleviate the hunger situation in the ten (10) districts with a total of 500 households to benefit in each district.

When intending to carry out a performance audit, the public sector auditor needs to identify and determine the objective of the subject matter.

Inputs:

Inputs are the resources that are used by the subject matter. In this case the task force that has been set up to run the program to achieve the objective.

In the case at hand, the input resources include the donation of \$2million. The funds should be used in order to ensure that the objectives that have been agreed upon are met.

Processes:

This is the actual implementation of the program whereby the resources are applied in achieving the objective.

This includes the process of administering the program within the approved amount of \$300 000.00

The rest of the funds are supposed to be used in accordance with the approved budget.

Outputs:

This is relates to the output arising from the processes that have been undertaken.

In this case, the output is that out of the targeted ten (10) districts where 500 households should have benefited, only three districts met the target. The output is clearly below the intended objective of the program.

Outcome:

This is the desired outcome at commencement of the program and should be related to the intended objective. The outputs from the processes of the program are intended to achieve the desired outcome.

In this case, the intended outcome was to meet the set target of 500 households for each of the ten (10) districts under this program.

iii. Achievement of the principles of economy, efficiency and effectiveness:

Economy – This relates to the inputs that have gone into the program and will measure whether or not the best price has been paid for the input taking into consideration quality.

This will include the costs of administration and also the acquisition of the relief food for distribution.

Efficiency – This concerns an evaluation of the relationship between the inputs into the program and the outcome. The question is whether the maximum output has been achieved from the given inputs or the outcome could have been achieved at a lower amount.

In this case the resources input should have achieved the set objective but going by the actual output it is clear that the output was below expectation.

Effectiveness – This concerns establishing whether or not the intended objective has been met.

In this case this will involve a comparison between the actual outputs with the intended outcome. Clearly this has not been satisfied and so the effectiveness has not been achieved. It is only in three (3) out of the ten (10) districts that the target was achieved and met the objective.

SOLUTION FOUR:

a) i. Ways asset misappropriation may take place:

Misuse of assets:

This includes the misuse of assets belonging to the project. For example, the use of the project vehicle by the Project Manager is misuse of assets and hence asset misappropriation.

This is a common way in which misuse of assets takes place and over a period of time is costly and not in the interest of the public on how these public funds are being used.

Embezzling receipts for personal use:

This involves the misuse for personal benefit funds received for whatever purpose by the public university. This could be achieved by fraudulently altering or falsifying receipt documents in order to hide the fraud.

The fact that the project team could not account for the \$200 000.00 suggest that these funds could have been misappropriated for personal gain.

Fraudulent disbursement:

This involves making the public university pay for good and/or services that have not been received. It can be achieved either by making the institution pay fictitious suppliers or inflate the quantity of good received by forging the receipt documents.

This has been carried out in the project where quantities of goods received were inflated for fraudulent purposes.

- ii. Corruption is a serious fraud that takes place in the public sector by those entrusted with the use of public funds.

Corruption takes many forms including the following:

Bribery:

Bribery occurs when an individual has committed an offence and is supposed to suffer the consequences of doing so. The offender then offers money or anything of value to the one who is supposed to enforce the punishment in return for being let free.

Bribery can also be paid by someone who wishes a favor to be done such as a contract award in the case of tenders.

The employment of the Project Finance Officer who is not qualified may have been done corruptly where the responsible person for employing staff received money as gratification for giving the job to an unqualified person.

Extortion:

This occurs where money is demanded by force or by threats by one party on the other. This is usually in return of doing or not doing something.

For example arising from an audit by the Supreme Audit Institution (SAI), someone is found to have misappropriated public funds. Then, the public sector auditor threatens to take this matter up unless the offender pays him money.

Conflict of interest:

This is where an individual makes decisions with a view to gaining personal gain. Those entrusted with the use of public funds should use such funds for the benefit of the general citizenry and not their personal gain.

Conflict of interest could arise in a situation where the responsible person say forms a company which also tenders for jobs for the institution. He will be inclined to give contracts to this company in which he has an interest even if that company may be undeserving. This can also be carried out where the individual has an indirect interest such as a company owned by a family member or friend.

The fact that the Project Manager jointly owns a company with whom the project deals with gives rise to a conflict of interest. It is not surprising that the company has been given business to supply to the project.

b) i. Risk factors in the public hospital:

Fraud risk factors in an organization are any factors that may indicate the existence of fraud. They do not necessarily mean that fraud is present but in most cases these have been found where fraud has taken place.

In the case of the public hospital, the following could be considered as fraud risk factors:

- The fact that staff do not get their salaries on time may be a fraud risk factor in that those who handle cash may be tempted to use the money with a view to repay it.
- The use of manual receipts which have room for amendments is a fraud risk factor. The fact that staff who handle cash are also affected by the delayed salaries they may embezzle hospital funds for personal gain.
- The poor internal controls is a fraud risk factor especially if it affects cash and inventory which are susceptible to theft.

ii. Going concern:

Going concern is the ability of an entity to continue operations without an intention to cease or scale down its operations in the near foreseeable future.

The going concern ability of an entity is of significance to the public sector auditor of a public institutions such as a public hospital. If there is material uncertainty about the ability of the hospital to continue as a going concern and the financial reporting framework under which financial statements are prepared is inappropriate, this impact on the basis upon which financial statements are prepared. In this case, the financial statements would need to be prepared on a break up basis rather than on the historical cost basis which applied to going concerns.

iii. Responsibilities for going concern:

ISSAI 1570 together with the practice note gives guidance on going concern.

Management responsibility:

Management is responsible for the preparation of financial statements. For this reason management should ensure that it prepares the financial statements on the correct basis.

Management, therefore, has the responsibility of assessing the ability of the company whether or not it is a going concern. This assessment involves the use

of judgment on the part of management in terms of uncertain future outcomes of

the activities of the entity.

Auditor responsibility:

The duty of the auditor with regards to going concern is to review management's assessment of the entity as a going concern. This will be done

by evaluating the assumptions that management has considered in their evaluation and conclude whether the assessment is appropriate.

The auditor will also wish to obtain evidence on whether material uncertainty with regards to going concern exists and will report appropriately in accordance with the provisions of ISSAI 1570.

SOLUTION FIVE:

a) i. Risks of increased use of IT in the public sector:

The use of IT comes with risks of using IT in many organizations. This is largely because unlike convention methods where there are physical records to support transactions, in this case there is less and less paper trail of the transactions.

There are many risks with computerization including risks such as:

- Loss of data and information due to systems failure.
- Cyber-crime which is on the increase which can result in loss of information and suffering consequences of criminal acts.

ii. Meaning of Computer Assisted Audit Techniques:

This is the use of IT tools by the auditor to help the auditor carry out automated tests for evaluating an IT system or data. CAATs are more useful now with the increased use of IT in processing data by many organizations and they can be used during tests of control as well as substantive tests.

Benefits of using CAATs:

- The auditors can test many more transactions and balances compared to manual testing thereby reducing audit risk.
- It is possible for the auditor to test the programs used rather than the paper output only. The general and application controls can be tested.
- The auditor can take advantage of the speed of using the CAATs.
- Exception reporting can be effected thereby facilitating more effective use of the time of the auditors.
- CAATs can perform calculations and analytical procedures more efficiently.

b) i. Elements of public sector audits in the audit of Moomba District Council:

1. **The three parties to a performance or compliance audit** – the following are the parties to a compliance or performance audit

The auditor – In this case the public sector auditor who will undertake the audit.

The responsible party – This is party that will be subject to a public sector performance or compliance audit. This is the party that is responsible for the subject matter information.

Moomba District Council is the responsible party in this engagement.

Intended users – these are the parties for whom the audit is performed and the report is prepared. These could include those charged with the responsibility of offering oversight which could be the ministry responsible for local government and the general public.

2. The criteria for assessing the subject matter:

This is the yardstick against which the subject matter is measured during a compliance or performance audit. The result of the comparison will be evaluated by the public sector auditor who will then issue an appropriate conclusion.

3. The subject matter information:

This is the information or subject that is subject to a performance or compliance audit. This will be measured or evaluated against a suitable criteria.

ii. Benefits to the Public sector auditor of financial audit planning:

1. The public sector auditor will know early enough the risks that exist in the engagement.
2. The public sector auditor will carry out an efficient audit.
3. Determination of resources requirements including skills necessary to perform the audit.
4. The public sector auditor will give appropriate attention to important areas of the audit.
5. Planning facilitates the direction, supervision and review of the work performed.
6. The need for the use of experts will be known at the planning stage of the audit.

iii. Principles related to audits per ISSAI 100:

These principles apply regardless of the nature of public sector audits including financial audits such as the one for Moomba District Council:

Establishment of the terms of the audit:

Before carrying out a public sector audit, the public sector auditor should establish the terms of the audit. The terms must be agreed with the management of Moomba District Council in order to avoid any possible disagreement or misunderstanding.

Obtain an understanding:

In order to perform an effective public sector audit, it is necessary that the public sector auditor should gain an understanding of the nature of the operations of Moomba District Council. It is not possible to carry out an effective audit without first gaining an understanding of the subject matter.

The public sector auditors would be expected to assess the risk of material misstatement in accordance with the provisions of ISSAI 1315.

Risk assessment or problem analysis:

The approach to public sector audits will depend on the risk assessment carried out by the public sector auditor. The auditor will then respond to assessed risks and determine suitable audit procedures.

Identify and assess the risk of fraud:

The risk of fraud could be a significant risk in public sector audits. The public sector auditor should assess the risk of fraud at the planning stage of the audit and maintain professional skepticism throughout the audit considering the risk of fraud. The auditor should respond to any risks of fraud identified.

Develop the audit plan:

The public sector auditor should plan the audit to ensure that the audit is conducted in an efficient manner.

END OF SUGGESTED SOLUTIONS



CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 20 MARCH 2020

TOTAL MARKS: 100; TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:
Section A: One (1) compulsory scenario question.
Section B: Four (4) Optional scenario Questions. Attempt any three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.

6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. Present Value and Annuity tables are attached at the end of this paper.

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted

QUESTION ONE

The Minister of Finance of Bushworks Republic presented a 129,020.62 million kwacha budget to parliament for the financial year ending 31 December 2019. The budget is broken down in key areas of expenditure by functional categories as follows:

Table 1: 2019 Budget for Bushworks Republic by Functional Category

Functional Categories	Amount K' Million	Percent of Budget
General Public Services	35,940.68	27.9%
Defence	6,408.90	5.0%
Public Order and Safety	4,685.94	3.6%
Economic Affairs	40,265.20	31.1%
Environmental Protection	1,232.94	1.0%
Housing and Community Amenities	1,645.62	1.3%
Health	11,524.06	8.9%
Recreation Culture and Religion	647.00	0.5%

Education	21,283.86	16.5%
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Social Protection	5,386.42	4.2%
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Grand Total	129,020.62	100%
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In his speech to parliament, the Minister indicated that the country will finance 60% of its budget by borrowing on the international market through issuance of euro bonds. There were no specific viable projects that the government intended to embark on from the borrowed funds that would in turn enable the government generate revenue. The government of Bushworks has so far been struggling to meet operational costs. Economic Analysts have raised concern in the way Public Financial Management is being executed in the recent past. They have particularly raised concern on the country's continued allocation of huge resources towards General Public Services at the expense of the social sectors.

Required:

- (a) Explain the differences between the environments in which public and private sector organizations operate that leads to the need for fiscal discipline of Public Financial Management. (10 marks)
- (b) Explain the sources of financing the national budget and the disadvantages of relying on foreign borrowing as a significant source of government financing. (10 marks)
- (c) As Accountant General in the Ministry of Finance, write a memo to the Minister of Finance:
 - (i) Explaining what a euro bond is and the advantages of borrowing through issuance of a Euro bond on the Financial market. (8 marks)
 - (ii) Indicate challenges associated with the use of international borrowing especially for a government like Bushworks Republic. (4 marks)
- (d) Advise the benefits that accrue to a nation that invests its resources in the Education and Health Sectors. (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section

QUESTION TWO

- (a) Manyinga Republic was ravaged by civil war which resulted in a lot of infrastructure being damaged. As a result of the civil war which destroyed infrastructure in Manyinga Republic, the Government requested for financial assistance from co-operating partners to rebuild infrastructure in all the affected districts of Manyinga Republic. Prior to the civil war, the country was highly centralized in terms of public finance system and had weak capacities in the local authorities. The co-operating partners as part of their conditions to provide funds are proposing fiscal decentralization and implementing fiscal strategy and budgeting. The Minister of finance for Manyinga Republic is on record indicating that the country will continue with a highly centralized system of public finances and preparing its budget using a rolling three year medium term expenditure framework (MTEF) and activity based budget (ABB).

Required:

As an advisor on Public Financial Management to the government, write a paper explaining the risks associated with operating a highly centralized system of public finance and issues identified with budget preparation using ABB and MTEF frameworks. (14 marks)

- (b) Kasenegwa Republic, among other funding options, uses public debt to finance part of its budget. However, during the 2018 budget, the finance Minister indicated that government will reduce on raising funds through public debt but would instead focus on implementing cash management reforms. He however bemoaned resistance to implementing cash reforms management in the public sector.

Required:

Explain why cash management is poorly practiced in public sector financial management. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Public Finance Management system is an enabler for achieving development goals. Country Z has in the past two decades focused on strengthening Public Financial Management systems. Below is an extract from the Public Expenditure Financial Accountability (PEFA) report of 2016 of the score under the pillar comprehensiveness and transparency.

	2012	2016
Classification of Budget	B	B
Extent to which consolidated fiscal data Is collected and reported for general Government according to sectoral category	D	D
Oversight of aggregate fiscal risk from other Public entities	C	D+

Required:

- (a) Explain what the pillar on comprehensiveness and transparency covers. (3 marks)
- (b) In 2015, the World Bank carried out a Public Expenditure Tracking Survey (PETS) evaluating three aspects of general education namely: education performance, distribution of general education, public expenditure and school level of financing in terms of equity and various education inputs (including physical facilities and quality of teachers in Lavushimanda Republic.) Scores on learning outcomes from the PETS showed that there was significant shortage of textbooks due to lack of funding and inefficiencies in supply management. The authorities of Lavushimanda complained of too many assessments and have since written to the World bank indicating that they

preferred Public expenditure Financial Accountability (PEFA) that are undertaken every four years.

Required:

You are Director Finance in the Ministry of General Education, write a suitable response explaining to the authorities:

- (i) The nature of a Public Expenditure Tracking Survey (PETS) (3 marks)
- (ii) The circumstances in which a PETS is carried out and: (4 marks)
- (iii) Five key questions that the PETS responds to and may not be covered by the traditional Public Financial Management (PFM) assessments. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Councilors of newly created districts of country X lodged a complaint to the local government association that new councils were struggling to raise enough revenue to provide services without significant support from central government. The government recently withdrew grants to councils due to the overwhelming number of districts created in the past. This has infuriated the union representatives as the workers are agitated due to delayed payment of their monthly emoluments and accumulated gratuities.

Required:

- (a) Explain why it is appropriate for central government to fund local government activities. (14 marks)
- (b) Explain the problem this (refer to part a) may create for local government when attempting to raise more revenue from local resources. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The Ministry of Youth and Sport of Country Pikiloni during its 2019 strategic planning meeting resolved that all funds disbursed to the Youth Clubs meant for capital projects should be subject to identification and assessment of risks that may occur in the project's life cycle. During the first quarter of 2019, the Ministry received a request from Kalizo Youth Club. The executive of the club was considering using the youth empowerment funds on venturing in a market of a single product which has an estimated life cycle of three years.

The following information was gathered:

- (i) The total market size was estimated as : Year 1: 400,000 units; Year 2: 600,000 units; Year 3: 300,000 units
- (ii) Excel youth club intends to use a flexible manufacturing system which will be able to produce up to 100,000 units per year. The equipment will cost K1,000,000 (payable

year 0) and will have an estimated residual value of K200,000 (receivable at the end of year 4).

- (iii) An advertising campaign will be implemented on the following basis:

Year 0: K600,000; Year 1: K500,000; Year 2: K400,000

- (iv) Excel youth club estimated its sales units and selling price per unit as follows:

	Year 1	Year 2	Year 3
Estimated Sales Unit	33,332	50,000	25,000
Estimated Price (K):	30.00	27.50	31.25

- (v) The year 1 market share was critical. Annual sales for Excel youth club for years 2 and 3 are expected to increase or decrease from year 1 level achieved in proportion to the change in the size of the overall market from one year to the next, in so far as the production capacity of Excel youth club will allow. The prices set by Excel youth club in each of years 2 and 3 are as indicated in (iv) above.

- (vi) Variable cost was estimated at K12.50.

- (vii) Fixed costs directly attributable to the product (other than advertising costs) were estimated at K300,000 per year for each of years 1 to 3.

- (viii) Excel youth club estimated costs of capital is 10% for this type of project.

Ignore taxation and inflation.

Required:

- (a) You are an Accountant in the Ministry of Youth and Sport in charge of the Empowerment Fund, using the above information, calculate the net present (NPV) and advise the Permanent Secretary on the viability of the project being proposed by Kalizo Youth Club. (14 marks)
- (b) Explain how the use of target costing would assist in the achievement of the required return where a year 1 launch price of K30 is used. (6 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d) \frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))} \beta_e \right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))} \beta_d \right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d} \right] k_e + \left[\frac{V_d}{V_e + V_d} \right] k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \times \frac{(1 + h_c)}{(1 + h_b)} \quad F_0 = S_0 \times \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I} \right]^{\frac{1}{n}} (1 + r_e) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate

n = number of periods until payment

		Discount rate (r)									
Periods		1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
(n)											
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
 n = number of periods

		Discount rate (r)									
Periods											
(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	2
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	3
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	4
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	5
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	6
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	7
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	8
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	9
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	10
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	11
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	12
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103	13
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367	14
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528	2
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106	3
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589	4
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991	5
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326	6
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605	7
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837	8
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031	9
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192	10
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327	11
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439	12
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533	13
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611	14
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_j > 0$, add 0·5 to the relevant number above. If $d_j < 0$, subtract the relevant number above from 0·5.

CA3.8 SUGGESTED SOLUTIONS

Question One

1a. **Explain the differences between the environments in which public and private sector organizations operate that leads to the need for fiscal discipline of Public Financial Management**

- The relationship between citizens and those who use services and the state is based on rights, the public interest, and funding through taxation.
- As individuals and other entities are required to pay taxes for services, these taxes must be spent by government in the public interest, to high standards of ethics and governance in a manner that promotes value for money.
- Government is often a monopoly provider of public goods and services, and the absence of competition and a profit motive determining a fair way in which to allocate scarce resources and achieve value for money can be challenging.
- There are many complex and competing objectives faced by governments, and operating in a political environment adds additional pressures.
- Challenges from other parts of government or external providers of funding, who may also have both legitimate expectations as to how resources will be utilized, and their own stakeholders to satisfy.

1b. **Explain the sources of financing the National budget and the disadvantages of relying on foreign borrowing as a significant source of government financing.**

Sources of Financing the Budget:

Taxation: Defined as compulsory, unrequited payments, in cash or in kind made by institutional units to government. Taxation is normally defined as Direct Taxes – e.g company income tax, mineral royalty tax and PAYE or Indirect Tax – e.g Value Added Tax.

Fees and Charges: These are charged to individuals and organizations either for government provided goods and services or as a fine. They are a way of raising public revenue, but can also be used to change demand for goods and services, alter behavior and ensure that users of services pay for these services.

Grants: Provided to government by foreign countries, multilateral institutions, or other governmental and non-governmental organizations. Such grants have conditions and restrictions or can be provided as a form of budget support without formal conditions attached.

Domestic and Foreign Borrowing: Government can borrow from domestic or foreign sources. The most common way is to issue a bond, which is a form of debt sold to either domestic or foreign individuals and organizations. Government is required to pay interest on the borrowing and eventually repay the capital amount.

Disadvantages of relying on foreign borrowing as a significant source of government financing.

Program and project loans include financing from multilateral organizations such as World Bank, European Investment Bank and African Development Bank. They also include bilateral financing from banks such as the Export import bank of China. The requirement to pay interest and repay capital restricts future spending flexibility. Additional issues arise if borrowing is made and repayments are required in a foreign currency such as US dollars, this would result in depreciation of the local currency and

may lead to significant higher repayment.

- 1c.
- i. **Explain what a euro bond is and the advantages of borrowing through issuance of a Euro bond on the Financial market**
 - ii. **Identify challenges associated with the use of international borrowing especially for a government like Bushworks Republic.**
 - iii. **Explain to the benefits that accrue to a nation that invests its resources in the Education and Health Sectors.**

What is a Euro Bond

A Eurobond is denominated in a currency other than the home currency of the country or market in which it is issued. It is a bearer bond, which means it is unregistered, and payable to the person who carries it; losing a Eurobond is like losing a wallet filled with currency. These bonds are frequently grouped together by the currency in which they are denominated, such as euro dollar bonds. Issuance is usually handled by an international syndicate of financial institutions on behalf of the borrower, one of which may underwrite the bond, thus guaranteeing purchase of the entire issue.

They are issued only by large, credit-worthy companies, development banks and state-owned corporations, and are generally unsecured.

The advantages of borrowing through issuance of a Euro bond on the Financial market.

- Eurobonds gives issuers the opportunity to take advantage of favourable regulatory and lending conditions in other countries. Eurobonds are not usually subject to taxes or regulations of any one government, which can make it cheaper to borrow in the Eurobond market as compared to other debt markets.
- Eurobonds create a liability in a foreign currency to match against a foreign currency asset.
- They are also extremely flexible. Most Eurobonds are fixed rate but they can be floating rate or linked to the financial success of the company or the government.
- Obtaining financing by issuing Eurobonds is often cheaper than obtaining a foreign currency bank loan.
- It is a way to obtain financing in an economy where financing is hard to obtain. Issuing Eurobond gives companies wider access to the international market which they may normally not be able to access.
- Since Eurobonds are normally aimed at institutional investors and not the public, there are no advertisement costs involved and this means lower cost for the issuing firm.

Identify challenges associated with the use of international borrowing especially for a government like Bushworks Republic

- The Eurobond market has been criticized as being a haven for tax-shy investors.
- Lower overseas interest rates are not necessarily good news. Many corporate treasurers who try to take advantage of relatively low overseas interest rates

often overlook the reasons why interest rates are lower overseas.

- Because Eurobonds are unsecured, companies that issue them must be internationally known and have an excellent credit rating.
- There could be huge costs, elements of credit risk with all bond issue and also the element of country risk including political risk.

Explain to the benefits that accrue to a nation that invests its resources in the Education and Health Sectors.

- **Education is an investment**
The importance of knowledge and learning has been recognized since the beginning of time. Education contributes to human capital by developing a range of skills and traits, such as cognitive skills, problem solving ability, learned effectiveness, and personal control.
- **Countries can compete- and succeed**
To promote success in today's labor market, one needs to invest early, in the relevant skills. Above all, countries need to invest smartly, by promoting attention to the 3 A's: Autonomy, Accountability, Assessment. They need to pay attention to teachers, early childhood development and culture.
- **Expand opportunities and equity**
Education is truly one of the most powerful instruments for reducing poverty and inequality and it sets the foundation for sustained economic growth.
- **Investing in the health system** not only saves lives, it is also a crucial investment in the wider economy. This is because ill-health impairs productivity, hinders job prospects and adversely affects human capital development.

SOLUTION TWO

- 2a **You are advisor on Public Financial Management to the government, write a paper explaining the risks associated with operating a highly centralized system of public finance and issues identified with implementation of ABB framework.**

Risks of Using a Centralised Public Finance System

Decisions may be misunderstood while being passed on and lower position departments do not have the decision-making power, therefore it requires an efficient and well-organized top department.

- i. Attention and support for each department or city may not be balanced.
- ii. Delay of information may result in inefficiency of the government.
- iii. Discrepancies in the economy and information resources between the centre and other places are significant.
- iv. Excludes actors at the local and provincial levels from the prevailing system of governance, reducing the capacity of the central government to resolve disputes or design effective policies requiring local knowledge and expertise.

Issues with Budget Preparation related to ABB and MTEF

- i. Programmes and activities in ABB are not strategic with no clear link to outputs and outcomes expected from them
- ii. MTEFs have not provided reliable forward estimates of resource allocations
- iii. Effective , orderly and timely participation by relevant stakeholders in the budget preparation process

- 2b **Explain why cash management is poorly practiced in public sector financial management**

(i) Government departments or spending agencies experience no cost of managing their cash resources poorly or benefit for managing them well. Because of how government is organized and accounts are kept, the system fails to hold accountable those responsible for incurring the expense of interest. Department's cash management requirements or responsibilities are limited to depositing public funds and submitting requests for payment.

(ii) The main focus of the budget execution process is on the release of funds to spending agencies, and on the obligation of funds by these agencies, the actual spending of money is often not well coordinated with the apportionment of the budgetary appropriation.

(iii) The primary focus of government accounting systems is the accountability of funds and not the efficiency with which funds are utilized.

(iv) Lack of training/expertise in cash management

(v) Lack of monitoring

(vi) Lack of use of IT systems in management

SOLUTION THREE

- 3a Explain what the pillar on comprehensiveness and transparency covers
Comprehensiveness and Transparency Covers: To what extent to which information on PFM is: **comprehensive, consistent and accessible to users**. Its primary focus is on whether comprehensive and complete financial management and performance information is made available to the public, and if other parts of government are given sufficient clarity to enable them to follow their own budget processes.
- 3b You are Director Finance in the Ministry of General Education , write a suitable response advising the authorities, the circumstances in which a PETs is carried out and key questions that the PETS responds to and may not be covered by the tradition Public Financial Management(PFM) assessments
Public expenditure tracking surveys (PETS) are micro-level tools whose fundamental aim is to improve accountability and the effectiveness of service delivery. They are particularly useful when increases in public spending do not appear to be leading to improvements in the delivery of services.. PETS are often combined with quantitative delivery surveys where quantitative data is collected through interviews and service provider records.
PETS are particularly useful when increases in public spending do not appear to be leading to improvements in the delivery of services. This can be due to ineffective transfer of funds between different government units, through other forms of waste or corruption, or due to an inability to translate available resources into tangible improvements in the delivery of goods and services.

Questions PETS responds to:

- What the performance and quality of public service delivery is do as to improve the effectiveness of public expenditure.
- Where there are inefficiencies in public expenditure systems and service delivery mechanism
- Whether there are equity considerations that need to be addressed in public expenditure and service delivery across different regions , societal groups and urban/rural locations
- How effective are accountability mechanisms , particularly at local delivery levels
- Are special programs and expenditure allocations delivering as expected.

SOLUTION FOUR

6a Explain why it is appropriate for central government to fund local government activities
The reasons in support of central government funding for local government include:

- The support of certain services, for example education, which are of importance to the country as a whole;
- To enable local authorities to provide a similar range and standard of service across the country as a whole without large variations in local taxation;
- Redistribution of funds from the more wealthy parts of the country to the less wealthy;
- To subsidise local tax payers from general taxation;
- To influence local government spending on some services;
- To allow implementation of central government policy; and
- To activate local activity by providing targeted support to new projects while they are being established.

6b **Explain the problem this may create for local government when attempting to raise more revenue from local resources .**

- Heavy reliance on central government will create the Gearing Effect. Central government grant receipts will typically be fixed. Where a local authority wishes to raise more revenue, this will need to be raised locally. This can mean that a relatively small percentage increase in the overall budget for the local authority is only achievable by a large increase in locally raised funds.
- An increase can prove problematic for local councillors as the local population may criticise the authority for additional taxes or charges without understanding that the increase is necessary due to the inflexible amount of central government grant. That is, local politicians may be criticised for central government policy.

SOLUTION FIVE

5 a Cash Flow Analysis

	Year 0	Year 1	Year 2	Year 3	Year 4
Est. Sales units:		33,332	50,000	25,000	
Est. Selling Price:		30.00	27.50	31.25	
Capital Cost/Residual	(1,000,000)				200,000
Advertising Costs	(600,000)	(500,000)	(400,000)		
Sales Revenue		999,960	1,375,000	781,250	
Variable Costs – K12.50		(416,650)	(625,000)	(312,500)	
Directly Attributable - FC		(300,000)	(300,000)	(300,000)	
Net Cash Flows	(1,600,000)	582,510	749,300	468,450	200,000
Discount factor 10%	1	0.909	0.826	0.751	0.683
Discounted Cash flows	(1,600,000)	529,501.59	618,921.80	351,805.95	136,600.00

NPV = (K36,829.34)

Advise: The NPV is Negative **36,829.34**. The project is not viable, therefore the Ministry should not consider disbursing funds to Excel Youth Club for purposes of implementing this particular project.

5 b **Explain how the use of target costing would assist in the achievement of the required return where a year 1 launch price is K30 is used.**

- Where the launch price of K30 was used and variable cost of K12.50 and the directly attributable cost are K300, the NPV is Negative. This indicates that the cost of capital criterion has not been achieved.
- If the market share has been accurately forecast at appropriate selling price in years 1 to 3 , cost must be reduced from the current forecast level if the proposal is to be viable where the cost of capital is 10%
- Target costing will involve comparison of the current forecast cost levels with a target level which must be achieved. Any gap between the current estimate and the target cost must be closed. A number of techniques may be used to assist in the achievement of the target cost.

- A value engineering exercise may be carried out in order to evaluate necessary features of the product such as quantity and quality of materials and components and the conversion process required to achieve the desired quality of the finished product.
- Total quality techniques such as the use of quality circles may be used to look for ways of reducing costs of the product. This could be in form of meeting with work team responsible for some aspects of the product.
- A focus on value added and non-value added activities will allow focus on the identification of cost drivers and their root causes, in order to allow reduction in the incidence and cost of such cost drivers.

END SUGGESTED SOLUTIONS