

TAXATION PROGRAMME EXAMINATIONS

# **CERTIFICATE LEVEL**

#### C1: BUSINESS MANAGEMENT

# MONDAY 13 JUNE 2022

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 question paper consists of FIVE (5) questions of twenty (20) marks each. You MUST attempt all the FIVE (5) 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.

# Attempt all FIVE (5) Questions

#### **QUESTION ONE**

		[Total: 20 Marks]
(c)	List three (3) benefits of planning to the organization.	(6 marks)
(b)	Describe the process of performance appraisal.	(8 marks)
(a)	State six (6) barriers to effective communication in an organization	on. (6 marks)

#### **QUESTION TWO**

		[Total: 20 Marks]
(c)	Outline any three (3) forms of divisional structures.	(6 marks)
(b)	What five (5) factors are closely related to cognitive intelligence?	(10 marks)
(a)	List the steps in the control process	(4 marks)

#### **QUESTION THREE**

- (a) Explain the macro-environment influence on the following:
  - (i) Change in demand for products and services
  - (ii) Change in production and distribution of outputs
  - (iii) Price and availability of key inputs
  - (iv) Competition in the industry (12 marks)
- (b) Rapid changes in the world are affecting the way business is done everywhere. Different theorists have identified three (3) things an organization needs to be aware of in order to cope with changes in the environment.

#### **Required:**

What three (3) things does an organization need to be aware of in order to cope with changes in the environment. (6 marks)

(c) What is buyer power and how does it affect the business and industry? (2 marks)
 [Total: 20 Marks]

#### **QUESTION FOUR**

- (a) Managers have certain powers because of their official status or position in the organization's hierarchy of authority. Explain five (5) such powers. (10 marks)
- (b) Describe the differences between the Board of Directors and Executive Directors.

(6 marks)

# **QUESTION FIVE**

- (a) Describe the four (4) characteristics of an organization. (8 marks)
- (b) Briefly discus the following organizational structures:
  - (i) Functional Structure
  - (ii) Divisional structure
  - (iii) Hybrid structure
  - (iv) Matrix structure

(12 marks)

[Total: 20 Marks]

**END OF PAPER** 

# **C1 SUGGESTED SOLUTIONS**

#### SOLUTION ONE

#### (a) **Barriers to effective communication**

#### (i) Individual perception

The information received by an individual is usually analysed and judged. Therefore, the same information received may be differently interpreted by different individuals resulting into distortion of the meaning.

#### (ii) Use of semantics or jagons

(iii) This is the use of technical language related to the field of specialization to a non expert. This may result into communication breakdown or misunderstanding.

#### (iv) Lack of feedback

Effective communication is a two way system, meaning that the sender of the message must be provided with the feedback for acknowledgement of receipt. Therefore, this makes communication to become more effective.

#### (v) **Physical distractors**

Any form of distraction such as physical noise interferes effective communication.

#### (vi) **Poor use of communication channel**

The right channel and at the right time must be chosen to ensure that communication is effective.

(vii) **Emmotional reactions** such as anger, love, defensiveness, jealousy, fear, embarrassment may result into ineffective communication.

#### (b) **Performance appraisal**

- i. This is the process of evaluating or assessing the performance of an Employee over a predetermined period of time.
- ii. Employees could be assessed quarterly or annually depending with the policy of the organisation.
- Employees are usually evaluated on the agreed targets or standard of work to be performed such as quantity to be produced, sales targets, punctuality, creativity and innovation etc.
- iv. Performance appraisals are usually conducted on a one to one basis with the immediate supervisor using the performance appraisal form. The form has

scores for each area being appraised and the overall score will be indicated reflecting the individual employee s performance for that period.

# (c) Benefits of planning to the organisation

- (i) Helps the organisation to focus on the goals/objectives it intends to achieve.
- (ii) Helps the organisation to monitor its performance by comparing its goals against results. Where there are negative variances control measures are put in place, to ensure that the intended goals are achieved.
- (iii) Helps to improve coordination in the organisation. This means that all departments or groups of the organisation work together towards the achievement of the common goal.

#### SOLUTION TWO

(a) The steps in the control process are:

- i. Establish the performance objectives and standards
- ii. Measure the actual performance
- iii. Compare results with objectives and standards
- iv. Take necessary actions.

(b) The following factors that are related to cognitive intelligence:

- Knowledge of the business- having the technical competence and understanding of the work by the group so that his dealing and reactions are based on facts.
- ii. Creativity- use of imagination in complex situation in the rapidly changing world
- iii. Insight into other people situation having understanding that requires intuition and common sense.
- iv. Far sightedness-development of a vision and the long run consequences of today's actions. His calls for preparedness towards any eventualities.
- v. Conceptual thinking- being able to understand the influence of the external environment.

(c) The following are the four (4) forms of divisional structures:

- i. product structures- based on groups jobs and activities working on a single product and service
- ii. geographical structures- these are groups jobs and activities being performed in the same location
- iii. customer structure- customers structure groups together jobs and activities that are serving the same customers or clients'
- iv. time structures- jobs and activities grouped together that are performed on the same work shift

#### SOLUTION THREE

- (a) The following are the macro-environment influence on:
  - Change in demand for goods and services- change in tastes and preferences and low purchasing power, emergency of cheaper imports due to globalization.
  - ii. Change in production and distribution of outputs-is caused by new technologies such as e-commerce and other improved methods. Limited availability of raw material due to the restrictions in boarders as a result of the Covid 19 pandemic.
  - iii. Price and availability of inputs political unrest, production is cheaper and reliable. Availability new of skills because of new ways of interacting on the international level.
  - iv. Competition in the industry.
  - v. New regulations liberalization of the trade and tariff regimes.
  - vi. Changes of government which may bring new rules on trade, environmental sustainability and rules surrounding wages.
- (b) The following are the things an organization need to know in order to cope with change:
  - i. Its generosity- the extent to which resources are available to support firms and help them to cope and grow.
  - ii. Its dynamism- the extent of the stability and turbulence that exist.
  - iii. Its complexity-the extent to which it can embrace a range of activities that are significantly different from one another.
- (c) Buyer power is the extent to which an industry's customers have the power to dictate prices quality standards and other terms and conditions to the firms that are supplying them. If the power is too strong firms will be limited in how high they can set their prices and maybe forced to incur high costs.

#### SOLUTION FOUR

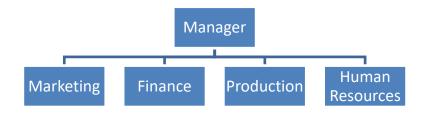
(a) The following are the powers bases on managerial authority:

- i. Reward power-influence through rewards
- ii. Coercive power-influence through punishment
- iii. Legitimate power-influence through formal authority
- iv. Expert power-influence through special expertise
- v. Reference power-influence through personal identification e.g. charisma
- (b) The differences between the Board of Directors is formally charged with the responsibility to ensure that the organization operates in the best interest of shareholders and are chosen from other organizations and position external to the organization. While Executive Directors are chosen from the senior management of the organization and are responsible to the board of directors.
- (c) Corporate governance is the system of governing the organizations so that the interests of the shareholders are protected through the controls and performance monitoring by top management to ensure that strategic management of an enterprise is successful.

#### SOLUTION FIVE

- (a) Describe the four (4) characteristics of an organisation.
  - i. Organizations are collection of people: Tthey combine the efforts of many people to accomplish more than they are otherwise capable of doing. This is called *synergy*, the creation of a whole that is greater than the sum of its individual parts.
  - ii. Organizations involve a division of labour: work in an organization is divided up and allocated specific tasks to be performed by individuals and groups. This division of labour allows people to develop the skills and expertise needed to perform the tasks with high level of accomplishment.
  - iii. **An organisation involves people working together**. People have specialized activities they perform Coordination ensures that people work together so that their many efforts contribute to the higher level accomplishment.
  - iv. An organization involves a common purpose: all work in an organization should share a common direction, or organizational purpose. This sense of "mission" should be clear to all members and relevant outsiders, and it should define a role for the organization as a viable component in society.
- (b) Distinguish the following organizational structures:
  - (i) Functional Structure

In functional structure, people with similar skills and performing closely related activities are placed together in formal groups.



(ii) Divisional structure

This structure groups people with diverse skills and tasks but who work on the same product, with similar customers/clients; in the same geographic region, or on the same time schedule. Divisional structures can take the form of:

- Product structure
- Geographic structure
- Customer structure
- Time structure.
- (iii) Hybrid structure

Divisional and Functional structure can be used in the different parts of the same organisation and thereby allow different needs to be served.

(iv) Matrix structure

This approach uses permanent cross-functional teams to blend the technical strengths of functional structures with the integrating potential of divisional structures. It results in many members belonging to two different formal groups at the same time-one of functional group and the other is product or project group.

# **END OF SOLUTIONS**



#### TAXATION PROGRAMME EXAMINATIONS

# CERTIFICATE LEVEL

# C2: ECONOMICS & FINANCIAL MATHEMATICS

WEDNESDAY 15 JUNE 2022

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 question paper consists of FIVE (5) questions of twenty (20) marks each. You <u>MUST</u> attempt all the FIVE (5) 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. 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.
- 6. All workings must be done in the answer booklet.
- 7. Present legible and tidy work.
- 8. Graph paper (if required) is provided at the end of the answer booklet.
- 9. Formulae are provided in a separate booklet.
- 10. 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.

# Attempt all five (5) questions.

# **QUESTION ONE**

- (a) Distinguish between withdrawals and leakages in the circular flow of income, giving two (2) examples of each. (4 marks)
- (b) Calculate the equilibrium national income given the following data: (6 marks)

	Consumption (C)	= K1000 + 0.60Y	
	Investment demand (	I) = K650million	
	Taxation (T)	= 0.3Y	
	Savings (S)	= -K700 + 0.01Y	
	Imports (M)	= 0.75Y	
	Export demand (X)	= K350 million	
	Government spending	g (G) = K500million	
(c)	Distinguish between r	nerit goods and public goods	(4 marks)
(d)	Outline any three (3)	advantages of direct taxes	(6 marks)

[Total: 20 Marks]

#### **QUESTION TWO**

(a)	State a like Za	and explain any two (2) reasons international trade is imp mbia.	oortant for a country (2 marks)
(b)	Explair	any three (3) terms of payment in international trade.	(6 marks)
(c)	Describe the following modes of transport in international trade;		
	(i) (ii) (iii)	Free on Board (FOB) Cost and Freight (C and F) Cost, Insurance and Freight (CIF)	(4 marks) (4 marks) (4 marks) <b>[Total: 20 Marks]</b>

#### **QUESTION THREE**

(a) A small firm negotiates an annual pay rise with each of its twelve employees. In an attempt to simplify the process it is proposed that each employee should be given a score (X) based on his/her responsibility. The annual salary (Y) will be (a + bx) in kwacha and the annual negotiations will only involve the values of a and b. The following table gives last year's salaries, which were generally accepted as fair and the proposed scores.

Employee	Х	Annual Salary (K)
A	10	5750
В	55	17300
С	46	14750
D	27	8200
E	17	6350

F	12	6150
G	85	18800
Н	64	14850
I	36	9990
J	40	11000
К	30	9150
L	37	10400

Consider the simple linear regression model

 $y_i = a + bx_i + \varepsilon_i$ 

Where the error term is normally distributed.

- (i) Estimate *a* and *b* from the data and write the regression line.
- (ii) Estimate the salary of employees whose score was 50. (3 marks)
- (b) A firm decides to increase output at a constant rate from its current level of 50,000 to 60,000 during the next five years. Calculate the annual rate of increase required to achieve this growth.
   (5 marks)

# [Total: 20 Marks]

(12 marks)

#### **QUESTION FOUR**

(a) The disaster management and mitigation unit opens a service line for calls in the disaster prone region. It was established that the time limits for emergence calls was following a normal distribution with a mean of 50 minutes between calls and a standard deviation of 10.

#### Required:

(i) What is the probability that service call takes more than 60 minutes?

(3 marks)

- (ii) What is the probability that a service call takes between 40 and 65 minute? (3 marks)
- (iii) The probability is 0.025 that a single service call takes more than how many minutes? (3 marks)
- (b) Mr Mainza plans to invest in an agricultural plantation project requiring an initial outlay of K20000, and is set to produce a return of K25000 in 3 years' time at an interest rate of 6%.

#### **Required:**

(i) Calculate the NPV. Comment on whether this investment is worthwhile.

(4 marks)

- (ii) Calculate the internal rate of return. Comment on whether this investment is worthwhile. (4 marks)
- (iii) Would your decision in (i) be affected if the prevailing interest rate were 12%? (3 marks)

### [Total: 20 Marks]

### **QUESTION FIVE**

(a) The demand and supply functions for the price of honey in Chisamba District of Zambia is given by:

Demand Function:  $P_d = 15 - 0.25Q_d$ Supply Function:  $P_s = 8 + 0.1Q_s$ 

#### **Required:**

- (i) Calculate the equilibrium price and quantity. (5 marks)
- (ii) Suppose the government imposes an ad valorem tax of 50% of the supply price. Find the new equilibrium price and quantity. (5 marks)
- (b) In the mass production of bolts it is found that 5% are defective. Bolts are selected at random and put into packets of ten. A packet is selected at random, find the probability that it contains

(i) 7	Three (3) defective bolts.	(4 marks)
-------	----------------------------	-----------

- (ii) Less than three (3) defective bolts. (3 marks)
- (iii) Two (2) packets are selected at random. Find the probability that there are no defective bolts in either packet. (3 marks)

#### [Total: 20 Marks]

#### **END OF PAPER**

#### **C2 SUGGESTED SOLUTIONS**

#### SOLUTION ONE

- (a) Withdrawals are those that reduce the size of the circular flow of income. Examples are savings, imports and taxes. Leakages are the same as withdrawals. There is no difference and the same examples apply.
- (b) At equilibrium planned injections = planned withdrawals

I + G + X = S + M + TK650 + K500 + K350 = -K700 + 0.01Y + 0.75Y +0.3Y K1500 = -700 + 1.06Y K2200 = 1.06Y Y = **K2, 075.47** 

- (c) Merit goods are goods whose consumption is encouraged because they confer external benefits to society e.g. health care and education. Public goods, on the other hand, are goods which are available to everyone regardless of who pays. They are non-excludable and non-exhaustive e.g. National defence.
- (d) The advantages of direct taxes are:
  - Direct taxes afford a greater degree of progression. They are therefore more equitable
  - They entail less expense on collection and as such are economical
  - They satisfy the canons of certainty, elasticity, productivity and simplicity
  - They create civic consciousness in people. When a person has to bear the burden of tax, he takes active interest in the affairs of the state.

### **SOLUTION TWO**

#### (a) Importance of international trade

- Uneven allocation of natural resources: because countries are endowed differently with natural resources, they sell what they produce and buy what they cannot.
- Climatic differences: differences in climatic conditions mean that different crops will grow in different countries, thereby, making trade essential.
- Differences in human skills and productivity: differences in skills and productivity will result in differences in the quality and quantity of goods that they produce.

#### (b) Terms of payment

#### (i) Advance Payment (cash with order)

- The importer pays the exporter before the goods are dispatched.
- It is the most secure method on the side of the exporter.
- It depends on the trust of buyer that the seller will deliver the goods
- The risks inherent in the method are to the importer.

#### (ii) **Open Account Method**

This is an arrangement where the exporter dispatches the goods, documents of title and invoices to the importer before receiving the payment. Risks apply to the exporter on open account.

#### (iii) Collection Method

This is an arrangement where the exporter dispatches the goods to the importer, but the documents of title are sent through a banking system. The exporter ships the goods and obtains document of title, and sends the document of title to his bank with appropriate instructions. The bank sends the title to the importer's bank with instructions that documents be released on payment.

#### (iv) **Documentary credits**

This is the guarantee of payment by the importer's bank on condition that the exporter presents specified documents within a stipulated period and conforms to the terms of the letter of credit. In this case, the exporter ships the goods by relying on the reputation of the importer's bank.

#### (v) Modes of transportation

#### Free on Board (FOB)

The seller has the following responsibilities

- To deliver the goods on board the vessel
- To pay the port loading costs
- Provide the buyer with an invoice for the value of the goods
- Provide the buyer with the proof of delivery

The buyer is obligated to;

- Arrange and pay for the freight charges
- Arrange and pay for the insurance charges
- Bear all risks and loss or damages to the goods once they have been loaded.

# Cost and Freight (C and F)

The seller has the following responsibilities

- Arrange and pay for freight charges to the named port of destination
- Deliver the goods on board the vessel at the port of shipment
- Pay for loading costs

≻

- Provide the buyer with appropriate transport documents
- Provide the buyer with an invoice for the value of goods

The buyer has the following responsibilities

- Arrange and pay for insurance charges for goods in transit
- Collect the goods at the port of shipment
- Bear all the risks/ loss and damage to the goods once they have been loaded on board
- Pay unloading costs at the port of destination

# Cost, Insurance and Freight (CIF)

The seller has the following responsibilities

- Arrange and pay for freight charges
- Deliver the goods on board the vessel at the port of shipment
- Arrange and pay for insurance charges for goods in transit
- Pay for loading and unloading costs
- Provide buyer with appropriate transport documentation
- Provide buyer with an invoice for the full value of the goods

The buyer has the following responsibilities

- Collect the goods at the port of destination
- Bear all costs and risks of loss and damage to the goods once they are off-loaded from the vessel at the port of shipment

(a)

(i)

$$\sum y = 132\,690, \quad \sum x = 459, \quad \sum x^2 = 22889, \quad \sum xy = 6\,097990$$

$$b = \frac{n\sum xy - \sum x\sum y}{n\sum x^2 - (x)^2} = \frac{12 \times 6\ 097\ 990 - 459 \times 132\ 690}{12 \times 22889 - (459)^2} = \frac{12\ 271\ 170}{63\ 987} = 191.78$$

And

$$a = \overline{y} - b\overline{x} = \frac{132\ 690}{12} - 191.78\left(\frac{459}{12}\right) = 3722.07$$

Hence, the least-squares regression line is

$$\hat{y} = 3722.07 + 191.78x$$

(ii)

$$\hat{y} = 3722.07 + 191.78x$$
  
 $\hat{y} = 3722.07 + 191.81(50) = 13311.07$ 

(b)

$$S = P \left( 1 + \frac{r}{100} \right)^t$$

If the rate of increase is r%, then the scale factor is  $1 + \frac{r}{100}$ , so, after five years, output will be

$$50000 \left(1 + \frac{r}{100}\right)^5$$

To achieve a final output of 60 000, the value of r is chosen to satisfy the equation

$$50000 \left(1 + \frac{r}{100}\right)^5 = 60000$$

$$\left(1 + \frac{r}{100}\right)^5 = 1.2$$
$$1 + \frac{r}{100} = (1.2)^{\frac{1}{5}}$$
$$r = 3.7\%$$

#### **SOLUTION FOUR**

(a) (i)  $\mu = 50$   $\sigma = 10$ 

let x be the time taken for service calls.

$$P(X > 60) = P\left(z > \frac{60 - \mu}{\sigma}\right)$$
$$= P\left(z > \frac{60 - 50}{10}\right)$$
$$= P(Z > 1)$$
$$= 0.1587$$

(ii) 
$$P(40 \le X \le 65) = P(\frac{40-50}{10} \le Z \le \frac{65-50}{10})$$
  
=  $P(-1 \le Z \le 1.5)$   
=  $1 - P(Z > 1.5) - P(Z < -1)$   
=  $1 - 0.0668 - 0.1587$   
=  $0.7745$ 

(iii) 
$$P\left(Z > \frac{X-50}{10}\right) = 0.025$$
  
for a probability of 0.025, Z=1.96 (from Z-tables)  
 $1.96 = \frac{X-50}{10}$   
 $x = (10)(1.96) + 50$   
 $= 69.6$ 

(b) (i) The present value of S = K25000 in 3 years time on a discount rate of 6%

$$P = S(1 + \frac{r}{100})^{-t}$$
  
= 25000(1 +  $\frac{6}{100}$ )^{-3}  
= 25000(1.06)^{-3}  
= 20990.48

NPV = 20990.48 - 20000 = 990.48

The project is recommended since this value is positive.

(ii) To find the Internal Rate of Return (IRR)

$$S = P \left(1 + \frac{r}{100}\right)^t$$
 where  $S = 25000$ ,  $P = 20000$ ,  $t = 3$ 

$$25000 = 20000 \left(1 + \frac{r}{100}\right)^3$$
$$\left(1 + \frac{r}{100}\right)^3 = \frac{25000}{20000}$$
$$1 + \frac{r}{100} = (1.25)^{\frac{1}{3}}$$
$$\frac{r}{100} = 1.077 - 1$$
$$r = 100(0.077) = 7.7$$

IRR =7.7%. the project is recommended since this value exceed the marginal rate of 6%.

(iii) 
$$P = 25000 \left(1 + \frac{12}{100}\right)^{-3} = 17794.51$$

This time the NPV is negative, so project leads to an effective loss and is not to be recommended.

Alternatively, since he market rate is now 12% and the internal rate of return is 7.72% for the problem in part (i), the project is not worthwhile. We would rather invest the money at 12%.

#### SOLUTION FIVE

(a) (i) Equilibrium occur when  $Q_d = Q_s$  and  $P_d = P_s$ this implies the functions are written as P = f(Q) taking P and Q as only variables on LHS and RHS respectively.

Therefore 15 - 0.25Q = 8 + 0.1Q0.1Q + 0.25Q = 15 - 8Q = 20 the equilibrium quantity

To find the equilibrium price, substitute Q in any of the equations of P

$$P = 15 - 0.25(20)$$
  
 $P = 10$ 

(ii) If the government imposes an ad valorem tax ax of K5 (=50% of the supply price) per good then the money that the firm actually receives from the sale of each good is the amount, P, that the consumer pays, less the tax, 5: that is, P - 5. Mathematically, this problem can be solved by replacing P by P - 5 in the supply equation to get the new supply equation P - 5 = 8 + 0.1 Q that is

$$P = 0.1Q_{s} + 13$$

The remaining calculations proceed as before. In equilibrium,  $Q_d = Q_s$ . Again setting this common value to be Q gives

$$P = 15 - 0.25Q$$
  
 $P = 13 + 0.1Q$ 

Hence

$$15 - 0.25Q = 13 + 0.1Q$$

which can be solved as before to give Q = 5.7. Substitution into either of the above equations gives P = 13.6.

(b) Let *X* denote the number of defective bolts.

Therefore, we have that;

 $n = 10, \ P(success) = p = 0.05(q = 1 - p = 0.95), \ \text{So that} \ X \sim B(10, 0.05).$ And we know that:  $P(X = x) = \binom{n}{x} p^x q^{n-x} = \binom{n}{x} p^x (1-p)^{n-x}, \ x = 0, 1, 2, ..., n$ 

(i) 
$$P(X = 3) = {\binom{10}{3}} (0.05)^3 (1 - 0.05)^{10-3}$$

$$= \binom{10}{3} (0.05)^3 (0.95)^7$$
  
= 0.0105

(ii) P(X < 3) = P(0) + P(1) + P(2)

$$P(X = 0) = {\binom{10}{0}} (0.05)^0 (1 - 0.05)^{10-0} = 0.5987$$
$$P(X = 1) = {\binom{10}{1}} (0.05)^1 (1 - 0.95)^{10-1} = 0.3151$$
$$P(X = 2) = {\binom{10}{2}} (0.05)^2 (1 - 0.05)^{10-2} = 0.0747$$

Therefore;

$$P(X < 3) = 0.5987 + 0.3151 + 0.0747 = 0.9885$$

(iii) 
$$P(X = 0) \times P(X = 0) = {\binom{10}{0}} (0.05)^0 (1 - 0.05)^{10-0} \times {\binom{10}{0}} (0.05)^0 (1 - 0.05)^{10-0}$$
  
 $0.5987 \times 0.5987 = 0.358$ 

# **END OF SOLUTIONS**



# TAXATION PROGRAMME EXAMINATIONS

# CERTIFICATE LEVEL

# C3: ACCOUNTANCY FOR TAX PRACTITIONERS

#### MONDAY 13 JUNE 2022

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 question paper consists of FIVE (5) questions of twenty (20) marks each. You <u>MUST</u> attempt all the FIVE (5) 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.

#### Attempt all five (5) questions in this paper.

# **QUESTION ONE**

Flash Katongo is the owner of FK, a business that operates a small fleet of taxis used by businesses and the general public. He does not keep a double entry bookkeeping system. The business is registered for VAT and VAT rate is 16%.

You are an accounting Technician working on FK's accounts for the year ended 31 December 2020.

You have the following information given to you:

- 31 December 2019 31 December 2020 Summary of Balances as at (i) Κ Κ 2,100 (debit) Bank account To be calculated Capital account 15,530 15,530 Interest free loan 15,000 7,500 Prepaid Administration expense 1,200 1,350 Trade receivables 4,500 6,200 VAT (Credit balances) 7,650 To be calculated Vehicles at cost 80,000 80,000 Vehicles accumulated depreciation 48,620 To be calculated
- (ii) Sales for the year ended 31 December 2020:

•	Credit sale	s (Net of VAT)	K71,000

• Cash sales (Net of VAT) K234,000

• All sales are standard rated for VAT at 16%.

(iii) Payments from the bank account for the year ended 31 December 2020:

		K
-	Wages	98,000
-	Administration expenses (ignore VAT)	12,400
-	Vehicle running expenses (including VAT at 16%)	186,760
-	Drawings	20,000
-	ZRA for VAT	26,000
-	Loan Repayment	7,500

(iv) The vehicles are to be depreciated at 30% on a reducing balance basis.

#### **Required:**

You are required to complete the following ledger accounts and extract a trial balance thereafter:

		[Total: 20 Marks]
(e)	Trial balance.	(7 marks)
(d)	Administration expenses account.	(2 marks)
(c)	VAT control account.	(4 marks)
(b)	Trade receivables control account.	(2 marks)
(a)	Bank account.	(5 marks)

#### **QUESTION TWO**

Situmbeko Ltd is registered with an authorised capital of 300 ordinary shares of K1. The following trial balance was extracted from the books of the company on 31 March 2020, after the preparation of the trading account:

	Dr K	Cr K
Ordinary share capital		800,000
Land and building at cost	680,000	
sundry accounts receivables	153,200	
Furniture and fittings	320,000	
VAT	15,200	
Sundry account payables	,	100,000
Inventory	168,000	
Bank	48,000	
Gross profit		392,200
Office salaries and expenses	100,000	
Depreciation- furniture and fittings		128,000
Share premium		80,000
Advertising and selling expenses	20,000	
Irrecoverable receivables	1,000	
Allowance for receivables		2,400
Retained profits		48,000
Director's fees	<u>    45,200    </u>	
	<u>1,550,600</u>	<u>1,550,600</u>

#### **Additional Information:**

- (i) The allowance for irrecoverable receivables is to be adjusted to K2,800.
- (ii) Depreciation is to be provided in respect of furniture and fitting at 10% per annum on cost.
- (iii) K100,000 is to be transferred from profit and loss to general reserves.
- (iv) Dividends of 10% of share capital were declared before the year end and are to be provided for.

#### **Required:**

- (a) Prepare the statement of profit and loss account for the year ended 31 March 2020. (3½ marks)
- (b) Prepare the statement of changes in equity as at 31 March 2020. (2<sup>1</sup>/<sub>2</sub> marks)
- (c) Prepare the statement of financial position as at 31 March 2020. (14 marks) [Total: 20 Marks]

# **QUESTION THREE**

Below is the financial statement of LCM Company. You have been asked to prepare the statement of cash flows of the company, implementing IAS 7 statement of cash flows.

# LCM Company

Statement of profit or loss for the year ended 31 December 2020

Statement of profit of 1055 for the year chaca of December 201	20	17
Revenue Cost of sale Gross profit Distribution costs Administration expenses Profit from operations Interest received Interest paid Profit before tax Income tax expense Profit after tax	(	K 20,424 ( <u>14,512</u> ) 5,912 (1,000) ( <u>2,112</u> ) 2,800 200 ( <u>600</u> ) 2,400 ( <u>1,120</u> ) <u>1,280</u>
Statement of changes in equity for he year ended 31 Decembe Balance at 31 December 2019 Net profit for the year Dividends Balance at 31 December 2020	<u>r 2020.</u>	<b>K</b> 800 1,280 <u>(800)</u> 1,280
LCM Company		
Statement of financial position as at 31 December 2019 <u>Non-current assets:</u> Property, plant and equipment Intangible assets Investments	2020 <b>K</b> 3,040 2,000 <u>-</u> 5,040	2019 <b>K</b> 2,440 1,600 <u>200</u> 4,240
<u>Currents assets:</u> Inventories Receivables Short term investments Cash in hand	1,200 3,120 400 <u>16</u> 4,736	816 2,520 8 <u>3,344</u>
Total assets	<u>9,776</u>	<u>7,584</u>
Capital and reserves: Share capital K1 Share premium account Revaluation reserves Accumulated profits	1,600 1,280 800 <u>1,280</u>	1,00 1,100 728 <u>800</u>

	<u>4,960</u>	<u>3,928</u>
Non-current liabilities: Long term long Deferred taxation	800 <u>560</u> <u>1,360</u>	- <u>400</u> <u>400</u>
Current liabilities:		
Trade payables	1,016	952
Bank overdraft	680	784
Taxation	960	880
Dividends proposal	_800	<u>_640</u>
	<u>3,456</u>	<u>3,256</u>
Total equity and liabilities	<u>9,776</u>	<u>7,584</u>

#### **Additional Information**

(i) The proceeds of the sale of non-current assets investments amounted to K240.

(ii) Fixtures and fittings with an original cost of K680 and carrying amount of K360 were sold for K256 during the year.

- (iii) The current asset investments fall within the definition of cash equivalent under IAS 7.
- (iv) The following information relates to property, plant and equipment:

	31 Dec 2020	31 Dec 2019
	Κ	K
Cost	5,760	4,760
Accumulated depreciation	<u>2,720</u>	<u>2,320</u>
Net book value	<u>3,040</u>	<u>2,440</u>

(v) 300 K1 ordinary shares were issued during the year at a premium of 60 ngwee per share.

#### **Required:**

Prepare the cash flow statement for the year to 31 December 2020. (20 marks) [Total: 20 Marks]

#### **QUESTION FOUR**

Below is a trial balance from the books of Mrs Kaoma, a small business woman based in Chingola, as at 31 March 2020. The books are well – maintained and there is no reason to doubt the accuracy of the entries:

	К	К
Sales		860,000
Purchases	587,000	
Carriage inwards	4,200	
Drawings	62,000	
Rent	10,400	
Business rates	5,200	

Insurance	1,100	
Postage	500	
Stationery	1,972	
Advertising	500	
Wages	21,000	
Irrecoverable debts	800	
Allowance for receivables		800
Receivables	10,240	
Payables		7,200
Cash in hand	240	
Cash at bank	6,514	
Inventory	13,040	
Equipment at cost	300,000	
Accumulated depreciation – equipment		70,000
Capital		86,706
•	1,024,706	1,024,706

The following were discovered:

- (i) The following expenses are to be accrued: rent K300, business rates K400 and stationery K32.
- (ii) The following expenses were prepaid: Insurance K300, Advertising K100.
- (iii) Inventory at the year-end is K14,000.
- (iv) Depreciation is to be charged on the equipment at a rate of 10% on cost.
- (v) The allowance for receivables is to be increased to 10 per cent of the year-end balance.
- (vi) Purchases invoices to the value of K24,000 were found in a desk drawer the day before the reporting date with Mrs Kaoma. Only half of the amount above had been paid by cheque but no other record has been made in the books of accounts to account for the transaction.

#### **Required:**

- (a) Prepare the statement of profit or loss for the year ended 31 March 2020. (8 marks)
- (b) Statement of financial position as at 31 March 2020. (6 marks)
- (c) Published accounting statement should attempt to be relevant, understandable, reliable, complete, neutral, timely and comparable.

#### **Required:**

Explain three (3) difficulties that are there in applying all of them at the same time.

(6 marks) [Total: 20 Marks]

#### **QUESTION FIVE**

Joe Ltd is a trading company and prepares its financial accounts to 31 December every year. At 1 January 2019, the following balances were extracted from its books of accounts:

	К
Land at cost	80,000
Buildings at cost	40,000
Accumulated depreciation 31 December 2018	16,800
Office machinery at cost	3,200
Accumulated depreciation	1,920
Revaluation surplus at 31 December 2018	48,000

The company's policy is to charge depreciation on buildings at 5% on cost and 15% office machinery using straight line method. A full year's depreciation is charged in the year of purchase and non in the year of sale.

During the year to December 2019, the following transactions took place:

- (i) On 30 June 2019 office machinery was purchased for K540. This was to replace old ones which were given in part exchange. The agreed part exchange value was K80. They had originally cost K380 and their book value was K280 on 30 June 2019. The balance was paid in cash.
- (ii) On 31 July 2019 office machinery which had cost K80 and had a written down value of K40 on the same date was sold for cash K160.
- (iii) On 31 October 2019 an extension was made to the building costing K2,400.
- (iv) On 31 October 2019 it was decided to revalue land upwards by K8,400 to reflect a market survey.

#### **Required:**

Prepare the following ledger accounts for the year ended 31 December 2019:

		[Total: 20 Marks]
(g)	Revaluation reserves.	(2 marks)
(f)	Office machinery disposal account.	(5 marks)
(e)	Office machinery – accumulated depreciation.	(4 marks)
(d)	Office machinery at cost.	(3 marks)
(c)	Freehold buildings-accumulated depreciation.	(2 marks)
(b)	Freehold building at cost.	(2 marks)
(a)	Land account at cost.	(2 marks)

#### **END OF PAPER**

# **C3 SUGGESTED SOLUTIONS**

# SOLUTION ONE

(a)		Bank Acco	ount				
Balance b/f Cash sales Trade receiv		K 2 100 271 440 80 660 <u>354 200</u>	Vehi Drav V Loar	jes inistration cle mining ex vings AT n repayment nce c/d	(penses	-	K 98 000 12 400 186 760 20 000 26 000 7 500 3 540 354 200
(b)	Tra	de Receivab	le Cor	ntrol Account			
Balance b/f Sales		K 4 500 <u>82 360</u> <u>86 860</u>	Banl Bala	k nce c/d			K 80 660 <u>6 200</u> 86 860
(c)		VAT Contro	Acco	ount			
Input V Bank Balance		K 25 760 26 000 <u>4 690</u> 56 450		nce b/f out VAT			K 7 650 48 800 <u>56 450</u>
(d)	<u>Ac</u>		<u>ı Expe</u>	enses Accoun	<u>t</u>		
Balance Bank	b/f	K 1 2 <u>12 4</u> <u>13 6</u>	<u>00</u>	SPL Balance c/f			K 12 250 <u>1 350</u> <u>13 600</u>
(e)	<u>Trial B</u>	Balance as at	: 31 D	ecember 202			
Adminis Bank Capital	stration expenses (	12 400 + 1	200)	K 13 6 3 5	00	K 15 530	
	ation expense gs			9 1 20 0		7 500	
Wages Sales				98 0	00	305 000	
	eceivables			6 2	.00	4 690	
Vehicles	s at cost Ilated depreciation			80 0	00	58 734	
	running expenses			<u>161 0</u> 391 4		<u>391 454</u>	

# SOLUTION TWO

(a) <u>Situbeko statement of profit and loss for the year ended 31 March 2019.</u>

	K	К	
Gross profit		392 200	
Office salaries and expenses	100		
	000		
Advertising	20 000		
Directors' fees	45 200		
Allowance for receivables	1 400		
(1000+400)			
Depreciation-Fixtures & fittings	<u>32 000</u>		
		<u>198 600</u>	
		193 600	

# (b) <u>Statement of changes in equity for the year-ended 31 March 2019.</u>

	Retained Profit	General reserves	Share premium
	К	К	K
Opening balance	48 000	-	80 000
Retained profits per the year	193 600	-	-
Transferred to general reserves	<u>(100</u>	<u>100 000</u>	
	<u>000)</u>		
Closing balance	<u> 141 600 </u>	<u>100 000</u>	<u>80 000</u>

# (c) <u>Statement of financial position as at 31 March 2019</u>

New summer except	Cost <b>K</b>	Dep'n <b>K</b>	NBV K
<u>Non-current assets</u> Land and buildings Fixtures and fittings	680 000 <u>320 000</u> <u>1 000</u> <u>000</u>	<u>160 000</u> 160 000	680 000 <u>160 000</u> 840 000
	К	К	К
<u>Current assets:</u> Inventory Accounts receivables VAT Bank		168 000 150 400 15 200 <u>48 000</u>	
			<u>_381 600</u> <u>1 221 600</u>
<u>Current liabilities:</u> Accounts payables			(100 000) <u>1 121 600</u>
<u>Share capital:</u> Allocated, called up and fully paid Share premium General reserves Retained profits		80 000 100 000 141 600	800 000
		<u>171 000</u>	<u> </u>

# SOLUTION THREE

LCM Co. Statement of cash flows for the year ended 31 December 2020

Net Ceek flows from an anti-ities		К
<u>Net Cash flows from operating activities:</u> Net profit before tax		2 400
Adjustments for:		2 100
Depreciation charge (w1)		720
Less on sale of property, plant and equipment (360 – 256)		104
Profit on sale of non-current assets investments(240-200)		(40)
Interest expense		400
Operating profit before working capital changes Increase in receivables		3 584
Increase in inventories		(600) (384)
Increase in payables		64
Cash generated from operations		2 664
Interest paid		(600)
Tax paid (w2)		<u>(880)</u>
Net cash from operating activities		<u>1 184</u>
Cash flow from investing activities:		
Purchase of property, plant and equipment (w3)	(	1 608)
Purchase of intangible assets		(400)
Proceeds from sale of property, plant and equipment		256
Proceeds from sale investment Interested received		240 200
Net cash used in investing activities	(	(1 312)
Cash flow from financing activities:		
Proceeds from issue of share capitals		480
Issue of long term loan		800
Dividends paid		<u>(640)</u>
Net cash proceeds from financing activities		<u>   640  </u>
Net increase in cash and cash equivalents		512
Cash and cash equivalent at the beginning		<u>(776)</u>
Cash and cash equivalent at the end		<u>(264)</u>
Workings:		
1.	К	К
Depreciation at 31 Dec 2019		2 720
Depreciation at 31 Dec 2018	2 320	
Deprecation on assets sold (680 – 360)	<u> </u>	<u>2 000</u> 720
		, 20
2. Tax Paid <u>Income Tax</u>		
		K

4			
	Κ		К
Tax paid	880	Balance b/f	880

Balance c/d	960	PEL (1 120 – 560 – 400)	960
	<u>1 840</u>		<u>1 840</u>

Note: The taxation in the statement of profit or loss includes the increase in deffered tax provision.

This must be excluded when calculating the amount of income tax paid.

3. Purchase of tangible non-current assets:

PPE				
	K		К	
Balance b /f	4 760	Disposals	680	
Revaluation (800 -728)	72			
Purchase (Bal fig)	<u>1 608</u>	Balance c/d	<u>5 760</u>	
	<u>6 440</u>		<u>6 440</u>	

# SOLUTION FOUR

(b)

# (a) <u>Statement of profit or loss for the year ended 31 March 2020</u>

Sales	К	K 860 000
Less: Cost of sales: Opening inventory Purchases(587000+24000) Carriage in	13 040 611 000 <u>4 200</u> 628 240	
Less: closing inventory	<u>(14 000)</u>	<u>614 240</u>
Gross profit		245 760
Less expenses: Rent(10400+300) Business rates(5200+400) Insurance(1100+300) Postage Stationery(1972+32) Advertising(500-100) Salaries and wages Irrecoverable receivables Allowance for receivables Depreciation	$\begin{array}{c} 10 \ 700 \\ 5 \ 600 \\ 800 \\ 500 \\ 2 \ 004 \\ 400 \\ 21 \ 000 \\ 800 \\ 224 \\ 30 \ 000 \end{array}$	<u>72 028</u>
Net profit		<u>173 732</u>
Statement of financial position as at 31 March 2020:		
Non-current assets:	К	К
Equipment Depreciation		300 000 <u>(100 000)</u> 200 000
<u>Current assets:</u> Inventory Account receivables Prepayments Cash in hand	14 000 9 216 400 	<u>23 856</u>
Total assets		<u>223 856</u> 223 856
<u>Capital and liabilities:</u> Capital Net profit Less drawings	86 706 173 732 <u>(62 000)</u>	198 438
<u>Current liabilities:</u> Payables(12000+7200)	19 200	

Bank overdraft	5 486	
Accruals	732	<u>   25 418 </u>
		223 856

- (c)
   (i) The efforts required to make a set of accounts absolutely complete and reliable may result in extra time being spent to prepare them, thus reducing their timeliness.
- (ii) Neutrality might conflict with under stability.
- (iii) Neutrality might also be in conflict with comparability. No enterprise is exactly the same and comparisons maybe unjust, especially if different accounting policies are used.

# SOLUTION FIVE

(a)		<u>Land at</u> K	Cost	К
	Balance b/d Revaluation	80 000 <u>8 400</u> <u>88 400</u>	Balance c/d	<u>88 400</u> 88 400
(b)		<u>Freehold buil</u> K	dings at cost	К
	Balance b/d Addition: cash	40 000 <u>2 400</u> 42 400	Balance c/d	<u>42 400</u> <u>42 400</u>
(c)		_	cumulated Dep'n account	
	Balance c/d	K 18 920 <u>18 920</u>	Balance b/d Statement of P/L 5% x 42 400	K 16 800 <u>2 120</u> <u>18 920</u>
(d)		Office machine	ery at cost	
	Balance b/d Additions 460 + 80	K 3 200 540 <u>-</u> <u>3 740</u>	Disposal June Disposal July Balance c/d	K 380 80 <u>3 280</u> <u>3 740</u>
(e)			umulated Dep'n account	
	Disposal (380 – 280) Disposal (80 – 40) Balance	K 100 40 c/d <u>2 272</u> <u>2 412</u>	Balance b/d Charge for the year (3 280 x 15%)	K 1 920 492 <u>2 412</u>
(f)	Machinery: cost Machinery: cost	<u>Office machine</u> K 380 80 <u>460</u>	ery disposal account Accumulated dep Accumulated dep Cash (proceeds) Exchange value Loss on disposal (Bal Fig)	K 100 40 160 80 <u>80</u> 460

(g)	<u>Revaluat</u>	tion Reserves	
	К		K
Balance c/d	13 200	Balance b/d	4 800
		Land	<u>8 400</u>
	<u>13 200</u>		<u>13 200</u>

# **END OF SOLUTIONS**



TAXATION PROGRAMME EXAMINATIONS

# CERTIFICATE LEVEL

C4: DIRECT TAXES

# TUESDAY 14 JUNE 2022

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 question paper consists of FIVE (5) questions of twenty (20) marks each. You <u>MUST</u> attempt all the FIVE (5) 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. A taxation table is provided on pages 2, 3 and 4 of this paper.

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

(C4: Direct Taxes Taxation Table for 2022 Examinations) Income Tax			
Income band K1 to K54,000 K54,001 to K57,600 K57,601 to K82,800 Over K82,800	<b>Taxable amount</b> first K54,000 next K3,600 next K25,200	<b>Rate</b> 0% 25% 30% 37.5%	
<b>Income from farming for individual</b> K1 to K54,000 Over K54,000	<b>s</b> first K54,000	0% 10%	
<b>Company income tax rates</b> On income from manufacturing and other On income from farming On income from mineral processing On income from mining operations	er	30% 10% 30% 30%	
<b>Income from farming for individual</b> K1 to K54,000 Over K54,000	<b>s</b> first K54,000	0% 10%	
<b>Company Income Tax rates</b> On income from manufacturing and other On income from farming On income of Banks and other Financial Institutions On income from mineral processing On income from mining operations	er	30% 10% 30% 30% 30%	
On income from manufacture of product made out of copper cathodes	neral Royalty	15%	
Mineral Royalty on Copper			
Range of Norm Price		Mineral Royalty Rate	

	mineral Ruyally Rate
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** 

5% of norm value

8% of norm value 5% of gross value

6% of gross value

6% 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 **Capital Allowances** 

# Implements, plant and machinery and commercial vehicles:Wear and Tear Allowance –Standard wear and tear allowance25%Used in manufacturing and leasing50%Used in farming and agro-processing100%

	Used in mining operations	20%
Non- commercial vehicles Wear and Tear Allowance		20%
<b>Industrial Buildings:</b> Wear and Tear Allowance Initial Allowance Investment Allowance		5% 10% 10%
<b>Low Cost Housing</b> Wear and Tear Allowance Initial Allowance	(Cost up to K20,000)	10% 10%
<b>Commercial Buildings</b> Wear and Tear Allowance		2%
<b>Farming Allowances</b> Development Allowance Farm Works Allowance Farm Improvement Allowance		10% 100% 100%
Turnover Tax	Presumptive Taxes	4%
Rental Income Tax Annual Rental Income		470
K800,000 or below Above K800,000		4% 12.5%
Presumptive tax for transpo	orters	
Seating capacity	Tax per annum	Tax per quarter

		ian per damiter
	К	К
Less than 12 passengers and taxis	1,080	270
From 12 to 17 passengers	2,160	540
From 18 to 21 passengers	4,320	1,080
From 22 to 35 passengers	6,480	1,620
From 36 to 49 passengers	8,640	2,160
From 50 to 63 passengers	10,800	2,700
From 64 passengers and over	12,960	3,240

# Property transfer tax

Rate of tax on realised value of land, land and buildings and shares	5%
Rate on realised value of intellectual property	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 mineral processing licence or an interest in	
the mineral processing licence.	10%

# **QUESTION ONE**

DITA Ltd is a company engaged in the processing of timber operating in Kaoma district of Western province of Zambia. The company has taken advantage of the increased constituency development fund by diversifying its operations into the manufacture of furniture, particularly, school desks and office furniture

The following is the statement of profit and loss for the company for the year ended 31 December 2022.

		К	К
Sales			5,930,000
Cost of sales	(Note 1)		
( <u>2,106,000)</u>			
Gross profit			3,884,000
Royalties received (net)			105,000
Dividends received (net)			<u>185,000</u>
			4,114,000
Less Expenses			
Motor vehicle running expenses	(Note 2)	140,000	
Telephone expenses		35,000	
Entertainment	(Note 3)	157,500	
Advertising expenses	(Note 4)	84,700	
Legal fees	(Note 5)	125,500	
Wages and Salaries	(Note 6)	159,000	
Bad debts	(Note 7)	<u>23,500</u>	
			( <u>725,200)</u>
Net profit			<u>3,388,800</u>

The following information is relevant:

#### Note 1: Cost of sales

Included in the cost of sales figure is depreciation amounting to K58,000 and amortization of K8,000.

#### Note 2: Motor vehicle running expenses

The company purchased personal to holder vehicles which included a Ford Ranger double cab van(2500cc) and a Toyota Hilux double cab van (3000cc) in February 2022, at K945,000 and K918,750 respectively. The vehicles were provided to the Production Director and the Marketing Director. Private use by each director of each vehicle was agreed with the Commissioner to be 25%. The motor vehicle running expenses shown in the statement of profit or loss above relate to these vehicles.

#### Note 3: Entertainment expenses

Κ

Entertainment expenses were as follows:

Entertaining business associates	
End of year staff party	
Cocktail party for customers	

#### Note 4: Advertising expenses

Included in advertising expenses is expenditure on shirts provided to customers (valued at K350 each) totaling K35,000. The remainder relates to business adverts running on the national radio station.

#### Note 5: legal fees

Legal fees include:

Legal costs relating to the acquisition of a piece of land for the company Penalties for non-compliance with the environment act Recovery of trade debts	20,800 50,500 <u>54,200</u>
<u>125,500</u>	
Note 6: Wages and Salaries	
Wages and salaries include:	К
Staff canteen costs	20,500
Directors emoluments	110,000
Employee's salaries	<u>28,500</u>
	<u>159,000</u>
Note 7: Bad Debts	
Bad debts include:	K
Increase in general provision for bad debts	3,500
Decrease in specific provision for bad debts	9,300
Trade debts written off	<u>10,700</u>
	<u>23,500</u>
Note 8: Implements Plant and Machinery	

The company bought the following machinery during the course of the year:

Κ

15,000 117,500 <u>25,000</u> <u>157,500</u>

Κ

Heavy duty industrial timber cutting machine	450,000
10 tone Fuso truck	425,000
Office computer	45,000
Office furniture	85,000

During the course of the tax year 2022, the company sold a Toyota Allion (1,800cc) for K50,000. This car (Toyota Allion) was bought in 2019 at a cost of K80,000. A new Toyota Mark II car was purchased during the year at a cost of K90,000 to replace the Toyota Allion

#### **Required:**

(a) Calculate the maximum capital allowances claimable by DITA Ltd for the tax year 2022. (8 marks)
 (b) Calculate the taxable business profit for DITA Ltd for tax year 2022. (9 marks)

(c) Calculate the income tax payable by DITA Ltd for tax year 2022. (3 marks)

# [Total: 20 Marks]

Κ

23,700

# **QUESTION TWO**

Mubiana Mubiana who had been employed by Mongu Rice Limited for twenty (20) years, retired on 31 May 2022. During the year 2022, he was entitled to an annual salary of K252,000. He was also entitled to an annual housing allowance of 20% of his annual basic salary, a transport allowance of K2,000 per month and a medical allowance of K18,000 per annum.

On 1 May 2022, he received a labour day award of K30,000 for being one of the most hard working and honest employees. For being one of the longest serving employee, the company additionally awarded him with a long service bonus of K25,500 in cash, a bicycle worth K3,800 and cash vouchers worth K9,000.

Upon his retirement he was paid the following retirement benefits:

Severance pay	5,000
Repatriation pay	4,700
Accrued service bonus only eligible for payment on retirement	8,000

Mubiana Mubiana is an industrious person and made a number of investments from which he received the following investment income during the year 2022:

K Treasury bills interest (net) Bank interest (net) Royalties (net)	18,400 6,500 17,000
Mubiana made the following payments in the tax year 2022.	
	K
NAPSA contributions	13,700
Subscriptions to a professional body relevant to his employment	5,500
Golf club subscriptions	4,800
Donation to a local approved public benefit organisation	3,200

Donation to a local approved public benefit organisation
Income tax paid under PAYE

The company reimbursed him the following expenses he incurred in April 2022, after producing relevant supporting documents:

	K
Electricity bills	14,300
Water bills	6,600

# **Required:**

(a) (i) Explain the meaning of the term emoluments.				(1 mark)		
	(ii)	State when payments of director's emoluments are deemed received by a director.	to	have	been	
				(5 n	narks)	

- (b) Briefly explain the employer's obligations under Pay as You Earn. (3 marks)
- (c) Calculate the income tax payable by Mubiana Mubiana for the tax year 2022.

(11 marks) [Total: 20 Marks]

#### **QUESTION THREE**

(a) Property Transfer Tax (PTT) is chargeable whenever property is transferred. It does not apply on the transfer of chattels irrespective of whether they are used in business and capital allowances have been claimed on them.

#### **Required:**

(i)	Briefly explain the meaning of the term chattels.	(2 marks)
-----	---	-----------

- (ii) State the categories of property on which PTT is chargeable. (5 marks)
- (iii) Explain when the transfer of property is deemed to have occurred.

(3 marks)

(b) Jane Mumba made disposals of assets during the year 2022 as follows:

#### **Shares in Vimax Limited**

She sold 3,000 ordinary shares she held in Vimax Limited each with a nominal value of K1. They were sold at a market value of K3 each. She had bought the shares from a business associate three (3) years ago for K6,000.

#### **Piece of Land**

She sold an acre of land for K60,000, which was part of fifteen (15) acres of farm land she had bought in the Ngwerere farming block for K20,000 in 2016. The land was sold at a price that the government valuers estimated as the open market value.

#### **Shares in Malaiti Plc**

She sold 10,000 ordinary shares of K1 each she held in Malaiti Plc for K50,000 on 30 June 2022. She had acquired the ordinary shares through an Initial Public offer (IPO) at a price of K5 per share in September 2014. Malaiti Plc was listed on Lusaka Securities Exchange in September 2014.

#### Transfer to a daughter

On 1 May 2022, Jane transferred a residential plot to her first born daughter that had an open market value of K45,000 as a present after completing her Law degree at Mulungushi University. In appreciation, her daughter paid K5,000 to Jane which she received gladly.

# **Fuso Truck**

She sold a Fuso Truck for K170,000 to a Haulage company in Lusaka. She had bought this Truck from Japan two (2) years ago at a cost of K75,000. The written down value for Truck was K37,500.

# **Required:**

Explain the property transfer tax implication of each of the above transactions and compute the amount of any property transfer tax arising in each case. (10 marks) [Total: 20 Marks]

# **QUESTION FOUR**

Kunda and Mwana are in partnership sharing profits and losses in the ratio of 2: 3 respectively. On 1 August 2022, Aisha was admitted to the partnership and with effect from that date, the profits and losses were to be shared between Kunda, Mwana and Aisha in the ratio of 2:3:1 respectively. Salaries of the partners were K86,400 per annum for each partner up to 31 July 2022. From 1 August 2022, the partners' salaries were K96,000 and K97,200 per annum for both Kunda and Mwana respectively and K5,000 per month for Aisha.

The tax adjusted profit reported for the partnership for year ended 31 December 2022 was K489,000.

#### **Required:**

(a) Explain the tax treatment of tax losses suffered by partners. (2 marks)

(b) Calculate the tax payable by each of the partners for tax year ended 31 December 2022. (18 marks)

# [Total:20Marks]

#### **QUESTION FIVE**

(a) Explain the following classifications of taxes and give examples of each category.

(i)	Capital taxes	(2 marks)
(ii)	Revenue taxes	(2 mark)
(iii)	Progressive taxes	(2 marks)
(iv)	Regressive taxes	(2 marks)
(v)	Direct taxes	(2 marks)

(b) JCM Limited is planning to commence in business on 1 January 2022, running a retail trade dealing in assorted products. The company's turnover for the year ended 31 December 2022 is expected to be K660,000 and this will be generated evenly throughout the tax year 2022.

The company additionally plans to acquire an investment property which it will let out to another company at gross monthly rentals K25,000, from 1 January 2022, throughout the tax year 2022.

The company would like to register for normal company income tax. However, management has been advised that the company cannot register for company income tax.

#### **Required:**

(i) Explain the tax treatment of the rental income JCM Ltd will receive from letting out the investment property in the tax year 2022.

(5 marks)

- (ii) Explain the reasons why JCM Limited cannot register under normal company income tax in relation to the retail business. (2 marks)
- (ii) Compute the amount of tax payable by the company on its retail business in the tax year 2022, explaining how the tax will be paid.

(3 marks)

# [Total: 20 Marks]

**END OF PAPER** 

#### **C4 SUGGESTED SOLUTIONS**

# SOLUTION ONE

(a) DITA Ltd

COMPUTATION OF CAPITAL ALLOWANCES ON IMPLEMENTS, PLANT AND MACHINERY

FOR THE TAX YEAR 2022

Asset	Cost/itv	Capital Allowance
Mark	К	К
Ford Ranger	K	K
Cost	945,000	
Wear & tear @20%	(189,000)	189,000
Itv c/f	756,000	,
Toyota Hilux		
Cost	918,750	
Wear & tear @20%	( <u>183,750)</u>	183,750
Itv c/f	<u>735,000</u>	
10 Tonne Fuso truck		
Cost	425,000	
Wear & tear @25%	( <u>106,250)</u>	106,250
Itv c/f	<u>318,750</u>	
Office computer		
Cost	45,000	
Wear & tear @25%	<u>(11,250)</u>	11,250
Itv c/f	<u>33,750</u>	
Office furniture		
Cost	85,000	
Wear & tear @25%	<u>(21,250)</u>	21,250
Itv c/f	<u>63,750</u>	
Toyota Allion		
Cost	80,000	
Wear & tear @20% x 3	<u>(48,000)</u>	
Itv	32,000	
Disposal value	50,000	
Balancing charge	<u>(18,000)</u>	(18,000)
Toyota mark ii		
Cost	90,000	40.000
Wear & tear@20%	<u>(18,000)</u>	18,000
	<u>72,000</u>	

# Heavy industrial cutting machine

	<u>450,000</u>	
Wear & tear @50%	<u>225,000</u>	<u>225,000</u>
Total		<u>736,500</u>

(b) DITA ltd

# COMPUTATION OF TAX ADUSTED BUSINESS PROFIT FOR THE TAX YEAR 2022

	К	К
Net profit Add disallowable:		3,388,800
Depreciation	58,000	
Traffic fines	8,000	
Personal to holder vehicles:		
Production director	30,000	
Marketing director	40,000 15,000	
Entertaining business associates Cocktail party for clients	25,000	
Gifts to customers	35,000	
Legal costs for acquiring land	20,800	
Legal costs for non-compliance	50,500	
Staff canteen costs	20,500	
Increase in general provision	3,500	
		<u>306,300</u>
		3,695,100
Less:	726 500	
Capital allowances Dividends received	736,500 185,000	
Royalties received	105,000	
,	,	<u>(1,026,500)</u>
Tax adjusted business profit		<u>2,668,600</u>
( c ) DITA ltd Income tax payable for the tax year 2022		
income tax payable for the tax year 2022		
Business profit		2,668,600
Add royalties (105,000 x 100/85)		<u>123,529</u>
Total taxable income		<u>2,792,129</u>
Income tax (2,792,129 x 30%) Less: WHT Royalties (123,529x15%)		837,639 <u>(18,529)</u>
		(10,525)
Income tax payable		<u>811,110</u>
		<u>_</u> _

#### SOLUTION TWO

1

- (a) (i) Emoluments are all salaries, wages, fees, commissions, overtime pay, leave pay gratuity, benefits and advantages, allowances and all payments which an individual receives as a result of being employed or being a holder of an office.
  - (ii) Payments of directors' emoluments are deemed to have been received by each director on the earliest of the following dates:
    - (1) The time when payment is actually made and
    - (2) The time when the employee becomes entitled to the emoluments
    - (3) The time when the amount payable is decided
    - (4) The time when the amount payable is credited in the company's accounting records
    - (5) The end of the company's accounting period.
- (b) The employer's obligations under Pay as You Earn are:
  - (1) To correctly calculate taxable emoluments of employees.
  - (2) To calculate and deduct Income Tax from the emoluments at source

(3) To pay the amount of Income Tax deducted from the emoluments to the Zambia

Revenue Authority not more 10 days after the end of the month in which the

K

Κ

emoluments were paid to employees.

#### (c) MUBIANA MUBIANA PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2022

	IX I	IX IX
Marks		
Earned Income		
Salary (K252,000 x 5/12)		105,000
Housing allowance (K105,000 x 20%)		21,000
Transport allowance (K2,000 x 5)		10,000
Medical allowance (K18,000 x 5/12)		7,500
Long service bonus		25,500
Long service - Cash vouchers		9,000
Electricity bills		14,300
Water bills		6,600
Total emoluments		198,900
Investment income		
Royalties (K17,000 X 100/85)		20,000
		218,900
		-

Less allowable deductions		
Subscriptions to professional body		5,500
Donations to local approved public benefit organi	sation	3,200
		(8,700)
		210,200
Less tax free income		(54,000)
Taxable income		156,200
Income tax:		
25% x 3,600		900
30% x 25,200		7,560
37.5% x 127,400		47,775
		56,235
Less income tax already paid:		
PAYE	23,700	
WHT – Royalties (20,000 x 15%)	, <u>3,000</u>	
		(26,700)
Income tax payable		29,535

#### SOLUTION THREE

- (a) (i) Chattels are tangible movable property. PTT is not chargeable on chattels. Most Implements , plant and equipment are chattels.
  - (ii) The categories of property chargeable are:
    - Any Land in Zambia (including any building on that land)
    - Any share issued by a company in Zambia that is not listed on LUSE.
    - Any mining right or an interest in a mining right
    - Any mineral processing licence
    - Any intellectual Property such as trademarks, patents and brands
  - (iii) A transfer of property occurs when there is a change in the ownership of that property, which includes the following:
    - A disposal of property
    - A disposal of a part of the property (a part disposal as in the case of shares)
    - A gift of the property ( in the case of family members generally)

#### (b) (i) Shares in Vimax Limited

Shares in companies that are not listed on LUSE are chargeable property and have a realized value. The realized value is the higher of their nominal value and their open market value. The nominal value of the shares is K6,000,while the open market value of shares is K9,000. Therefore, the open market value is the realisable value.

PTT = K9,000 x 5% = K450

The piece of land is one of the properties chargeable to PTT. In the case of a piece of land sold, the realized value is the higher of the open market value and the actual sales price.

PTT = K60,000 x 5% = K3,000

Shares held in a company that is listed on LUSE do not have a realized value on transfer as they are specifically exempt. Therefore no PTT is payable.

#### Transfer to a daughter

In respect of transfers to members of the immediate family, the realized value is the actual price paid. Otherwise it is nil. The daughter paid a consideration of K5,000 in respect of residential property valued at K45,000. Therefore PTT is chargeable on the realized value of K5,000.

PTT = K5,000 X 5% = K250

# **FUSO Truck**

Property transfer tax is not chargeable on movable properties (chattels). Therefore, the realized value on the sale of a FUSO truck is nil. No PTT is payable.

#### **SOLUTION FOUR**

(a) If a partnership makes a tax loss, the loss is divided between the existing partners using the profit sharing ratio. Each partner can then claim loss relief on that individual's share of the loss.

A tax loss can be carried forward by each partner and be offset against future partnership profits arising from the **same trade**. The maximum carry forward period of such a loss is **five years** 

(1 mark for each valid point up to a maximum of 2 marks)

(b) Kunda, Mwana and Aisha:

<u>1.01.2022 - 31.07.2022</u>	Total	Kunda	Mwana	Aisha
	K	К	К	К
-Salaries	100,80 0	50,400	50,400	
-Salaries	U	50,400	<u>110,67</u>	
-Residual profit(2:3)	184450	<u>73,780</u>	0	
	285,25	124,18	161,07	
	<u>0</u>	<u>0</u>	<u>0</u>	0
<u>1.08.2022 - 31.12.2022</u>				
	105,50			
-Salaries	0	40,000	40,500	25,000
-Residual profit(2:3:1)	<u>98,250</u>	<u>32,750</u>	<u>49,125</u>	<u>16,375</u>
	<u>203,75</u>	72 750	00 (25	41 275
	<u>0</u>	<u>72,750</u>	<u>89,625</u>	<u>41,375</u>
	489,00	196,93	250,69	
Total Appropriations	0	0	5	41,375
Less Tax free income	-	-54,000	-54,000	-41,375
		142,93	196,69	
		<u>0</u>	<u>5</u>	<u>0</u>
Income Tax				
On next K3,600 x25%		900	900	0
On next K25,200 x 30%		7,560	7,560	0
On excess of 114,130 /167,895				
x37.5%		<u>42,799</u>	<u>62,961</u>	
		<u>51,259</u>	<u>71,421</u>	0

#### SOLUTION FIVE

#### (a) (i) **Capital taxes**

These are taxes on capital receipts. A capital receipt is an amount of receipt resulting from a disposal of a capital item. Examples of capital taxes are capital gains tax and property transfer tax.

#### (ii) **Revenue taxes**

These are taxes which are levied on revenue receipts. A revenue receipt is a receipt arising from a sale of a non-capital item, i.e items acquired with a view to subsequent resale. An example of a revenue tax is income tax.

#### (iii) **Progressive taxes**

These are taxes which rise as a person's income rises. The rates of tax for lower income levels are less than the tax rates for higher income levels. Income tax is generally an example of progressive tax where it is levied at different tax rates such that low income is taxable at lower rates.

#### (iv) Regressive taxes

These are taxes that represent a smaller proportion of a person's income as the income of that person rises, the average rate of tax falls. VAT is a regressive tax because the rate of VAT is the same on the good whether that good is bought by a person whose income is high or by a person whose income is low

#### (v) **Direct Taxes**

These are taxes that are levied directly on income generated by a tax payer. Examples include company income tax and personal income tax.

(b) (i) Rental income is chargeable to Turnover Tax at the rate of 4% if the rental income is K800,000 per annum or less.

Where the rental income received by any person exceeds K800,000 per annum, then it will be subjected to tax at the rate of 12.5%.

Since the annual rental income of JCM will be K300,000 (K25,000 x 12), it will be taxable at the rate of 4%.

The amount of turnover tax on the rental income the company will be required to pay month will therefore be  $K1,000 (K25,000 \times 4\%)$ 

The total amount of TOT on rentals the company will pay for the tax year 2022, will therefore be K12,000 (K1,000 x 12)

(ii) A company whose turnover is in excess of K800,000 per annum is liable to income tax. However, if the company has a turnover of K800,000 and less, then it will be subjected to turnover tax.

As for JCM Ltd, its turnover is less than K800,000 for the tax year 2022, therefore It will be liable to turnover tax @ 4% .

(iii) JCM Ltd will be required to pay TOT(Turnover tax) on the gross monthly basis. The due date of the payment of the tax will be the 14<sup>th</sup> day following the end of each month.

The amount of TOT payable per month will be

K660,000/12 = K55,000 x 4%

= K2,200

The total amount of TOT payable by JCM Ltd in the tax year 2022, will therefore be:

K2,200 x 12 = K26,400

#### **END OF SOLUTIONS**



TAXATION PROGRAMME EXAMINATIONS

# CERTIFICATE LEVEL

# C5: INDIRECT TAXES

# THURSDAY 16 JUNE 2022

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

# **INSTRUCTIONS TO CANDIDATES**

- 1. You have fifteen (15) minutes reading time. Use this time to carefully study the examination paper so that you understand what to do in each question.
- 2. This question paper consists of FIVE (5) questions of Twenty (20) marks each. You <u>MUST</u> attempt all the FIVE (5) 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 in 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 on page 2,3 and 4.

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

# **Taxation table for paper C5- Indirect Taxes (June and December Examinations)**

#### Value Added Tax

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

#### **Customs and Excise**

Customs and Excise duties on used motor vehicles

	Aged 2 to 5 years		Aged over 5 years	
Motor vehicles for the transport of ten or more persons, including the driver	Customs duty K	Excise duty K	Customs duty K	Excise 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 2 to	5 years	Aged ove years	r 5
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
Sedans	К	К	К	К
cylinder capacity not exceeding 1000 cc Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	12,490 16,058	10,824 13,917	7,136 8,564	6,185 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 Cylinder capacity exceeding 1000 cc but not	10,705 14,274	9,278 12,371	7,136 8,564	6,185 7,422
exceeding 1500 cc	17,277	12,371	0,007	7,722
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 Station wagons	19,553	25,419	12,032	15,642
cylinder capacity not exceeding 2500 cc Cylinder capacity exceeding 2500 cc but not	16,545 18,049	21,508 23,463	9,024 13,357	11,731 17,598

exceeding 3000 cc Cylinder capacity exceeding 3000 cc but not exceeding 2500 cc	22,561	29,329	18,049	23,463
<b>SUVs</b> Cylinder capacity not exceeding 2500 cc Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	21,057 24,065	27,374 31,284	9,024 13,357	11,732 17,598
Cylinder capacity exceeding 3000 cc	28,577 <b>Aged 2 to</b>	37,150 <b>5 years</b>	18,049 <b>Aged ove</b> years	23,463 <b>r 5</b>
Motor vehicles for the transport of goods –with compression-ignitioninternal combustion piston engine (diesel or semi-	Customs duty	Excise duty	Customs duty	Excise duty
diesel):	к	к	к	к
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 tonnesbut not exceeding 3.0 tonnes	26,311	11,402	15,348	6,651
GVW exceeding 3.0 tonnesbut not exceeding 5.0 tonnes	30,697	13,302	17,541	7,601
Double cabs GVW exceeding 3 tonnes but not	30,274	0	24,119	10,452
exceeding 5 tonnes Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, <b>with spark</b> <b>ignition internal combustion piston</b> <b>engine</b>	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 tonnesbut not exceeding 3.0 tonnes	17,541	7,601	15,348	6,651
GVW exceeding 3.0 tonnesbut not exceeding 5.0 tonnes	21,926	9,501	17,541	7,601
Trucks	24.026	0 504	10.000	4 754
GVW up to 2 tonnes GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	21,926 28,504	9,501 12,352	10,963 13,156	4,751 5,701
GVW exceeding 5.0 tonnesbut not exceeding 10.0 tonnes	24,724	18,955	10,817	8,293
GVW exceeding 10.0 tonnesbut not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes GVW exceeding 20 tonnes, with spark ignition internal combustion piston engine	51,898 37,086	0 28,432	19,461 13,907	0 10,662

Customs and excise duty on new vehicles

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:	30%	
	Excise duty:		
	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	tonnes:	
	Customs duty	15%	
	Excise duty	10%	
3	Buses/coaches for the transport of more than ten persons		
	Customs duty:	15%	
	Excise duty:		
	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:	15%	
	Excise duty:	0%	

The minimum amount of customs duty on motor vehicles is K6,000.

Import VAT is added to the sum of VDP, customs duty and excise duty. It is determined at the standard rate of 16%

# Attempt all FIVE (5) Questions.

# **QUESTION ONE**

Simplex Limited is a VAT registered Zambian company that has experienced a tremendous growth in its business and the turnover has doubled in the past two (2) years in spite of the Covid 19 Pandemic which has adversely affected most of the small and medium sized businesses (SMEs).The following statement of profit or loss for the year ended 31 December 2022 was provided:

		К
Sales revenue	(Note 1)	1,520,400
Cost of sales	(Note 2)	<u>(734,300)</u>
Gross profit		786,100
Other income		76,000
Operating expenses	(Note 3)	<u>(232,700)</u>
Profit before tax		629,400
Income tax expense		<u>(188,820)</u>
Profit for the year		440,580

# Additional information:

(1) Sales revenue include 10% of zero rated sales, 20% exempt sales while the remainder is all standard rated sales. The standard rated sales include of sales made to customers who are not registered for Value Added Tax (VAT) purposes amounting to K120,000.

- (2) Standard rated sales amounting to K47,800 were returned by a customer who discovered that they were faulty and the company issued a credit note.
- (3) Included in cost of sales are standard rated purchases amounting to K440,600 which comprises purchases made from a supplier who is not registered for Value Added Tax (VAT) amounting to K95,000 and has indicated that his company will be registered for VAT during the year 2022. The remainder of the cost of sales consists of exempt purchases.
- (4) The operating expenses consists of the following:

	К
Entertaining special suppliers	62,800
Diesel	25,400

General overheads	108,000
Motor vehicle repairs	36,500
	<u>232,700</u>

(5) During the month of March 2022 the company bought a motor car for K180,960(VAT inclusive) and Office equipment for K139,200 (VAT inclusive).

#### Unless stated otherwise, all the figures above are exclusive of VAT.

#### **Required:**

- (a) Briefly explain the persons who are eligible to register for Value Added Tax (VAT) purposes. (2 marks)
- (b) Explain two (2) types of registration for Value Added Tax purposes and the circumstances under which each one (1) of them applies. (4 marks)
- (c) Explain the effective date of registration when a business becomes eligible for VAT.

4 marks)

- (d) Calculate the VAT payable by Simplex Limited for the tax year 2022. (9 marks)
- (e) State the payment due date of the VAT calculated in (d) above. (1 mark)
  [Total: 20 Marks]

#### **QUESTION TWO**

(a) Value Added Tax (VAT) is chargeable on taxable supplies which can be either Standard rated or Zero rated. The other supplies will be exempt.

#### **Required:**

- (i) Define a taxable supply and explain how it is determined. (3 marks)
- (ii) Explain three (3) differences between zero-rated and exempt supplies.

(3 marks)

(b) All VAT registered suppliers, except those under the Cash Accounting scheme, should remit to Zambia Revenue Authority (ZRA) any VAT charged on taxable supplies made in the course of their business regardless of whether payment for those goods or services has been received or not. However, any VAT paid to ZRA but not received from an insolvent customer can be claimed back as a bad debt relief.

# **Required:**

- (i) State three (3) conditions which should be met for a trader to claim a bad debt relief. (3 marks)
- (ii) Explain five (5) steps to be followed in claiming the bad debt relief. (5 marks)
- (c) The VAT return for BWM Ltd for February 2022, which showed a payable VAT amount of K38,400, was submitted late by the Accountant which led to the late payment of VAT by 10 days. And as such the company was subjected to some penalties.

Assume that the Bank of Zambia discount rate was 13%.

#### **Required:**

Calculate the penalty and the interest payable by BWM Ltd for the late payment of VAT.

(6 marks) [Total: 20 Marks]

# **QUESTION THREE**

The Zambian Government is a member of the Preferential Trade Area (PTA) whose treaty was signed in 1982. Among the main objectives of the PTA is to promote cooperation and integration covering all the areas of economic activity.

#### **Required:**

(a) List seven (7) strategies used by Preferential Trade Area (PTA) to attain its objectives.

(7 marks)

(b) Explain the mechanisms put in place by SADC and COMESA member states to promote intraregional integration.

(3 marks)

(c) Explain the five (5) main areas of focus of the Customs Union. (5 marks)
(d) List any five (5) items on which some input tax is non-claimable. (5 marks)

[Total: 20 Marks]

#### **QUESTION FOUR**

The Government of the Republic of Zambia, through the Zambia Revenue Authority (ZRA) has the responsibility of collecting revenues in order to meet the government expenditure.

#### **Required:**

(a) Explain any five (5) functions of the Customs and Excise Division of the Zambia Revenue Authority (ZRA) in relation to trade taxes.

(10 marks)

(b) Explain any four (4) powers of the Customs and Excise officer.

(4 marks)

- (c) Explain any four (4) main matters a Customs Manager will consider when inspecting a Bonded Warehouse. (4 marks)
- (d) Explain how a cash discount offered to customers is treated for VAT purposes.

(2 marks) [Total: 20 Marks]

#### **QUESTION FIVE**

(a) Kamalondo imported a second hand saloon (Sedan) car from Vietnam in January 2022 at a cost of US\$3,800. He paid insurance charges of US\$300 and freight charges of US\$950. The insurance and freight charges cover the saloon car up to Nakonde border post. Other incidental costs up to the border were US\$600. However, registration costs amounting to K5,300 were also paid in Lusaka. The car has a cylinder capacity of 2,500 cc and was manufactured in 2019. The car reached Nakonde border post on 22 January 2022 and all the import taxes were paid.

The Commissioner General advised that for the period from 15 December 2021 to 31 January 2022, the exchange rate to be used was K16.40 per US\$1. However, the kwacha appreciated around 22 January 2022 and on that date, the exchange rate quoted in one of the banks was K15.10.

#### **Required:**

- (i) Calculate the Value for Duty Purposes (VDP) of the saloon car. (3 marks)
- (ii) Calculate the total amount of import taxes paid at Nakonde border post.

(4 marks)

- (b) (i) Explain Three (3) conditions which should be met for new returning resident to claim tax rebate. (3 marks)
  - (ii) State the goods that are allowed entry into the country without payment of import taxes for a new or returning resident. (2 marks)

(c) VAT Inspection visits are undertaken to enforce compliance with the law and also ensure that the full tax due has been accounted for on the VAT Returns.

# **Required:**

State any eight (8) documents which can be examined by the officers from the VAT Section. (8 marks)

[Total: 20 Marks]

**END OF PAPER** 

#### **C5 SUGGESTED SOLUTIONS**

#### SOLUTION ONE

- (a) Persons who can register for Value Added Tax (VAT) purposes are traders who make taxable supplies and includes sole traders, limited companies, partnerships, members' clubs and other bodies of persons.
- (b) The two types of registration for Value Added Tax (VAT) purposes:

**Statutory registration** is required in cases where a trader who makes taxable supplies has a turnover of taxable supplies that exceeds a threshold of at least K800,000 in any 12 months or K200,000 in any three consecutive months.

**Voluntary registration** is required in cases where a trader who makes taxable supplies has a turnover that is below the registration threshold, but the trader wishes to be registered in order to recover input VAT.

- (c) The effective date of registration is the date when a business becomes registrable for VAT and as such:
  - For a new business is the date of commencement of trading is the effective date of registration if the turnover thresholds are likely to be exceeded.
    - (2) For a continuing business which has exceeded the turnover thresholds:

The effective date of registration is within one month of an application being made to ZRA for registration or from the date the application was received by the Commissioner General or if the application is not made within one (1) month of first becoming liable to register, the effective date of registration is the when the threshold was exceeded.

#### (d) **SIMPLEX LIMITED**

#### **COMPUTATION OF VAT PAYABLE FOR THE MONTH OF MARCH 2022**

Output VAT	К	К
Standard rated:		
[K1,520,400 x 70%-K47,800 ]VAT	@ 16%	162,637

Zero rated sales 0%		0
Exempt sales		0
		162,637
Input VAT		
Standard rated purchases		
(440,600 – 95,000) x 16%	55,296	
Motor vehicle repairs (36,500 x 16%)	5,840	
General overheads (108,000 x 16% x 80	0%) 13,824	
Office equipment (139,200 x 4/29)	<u>19,200</u>	
		<u>(94,160)</u>
VAT payable		68,477

(e) The due date for the payment of the VAT is 18<sup>th</sup> day of the following month.

#### SOLUTION TWO

- (a) (i) A taxable supply is a supply of goods or services sold by a taxable supplier.
  - (ii) VAT is charged on a taxable supply of goods and services made by a taxable supplier. A taxable supplier is a business that must register for VAT.

This means that supplies made by persons who are not registered for VAT are not taxable supplies.

- (iii) The following are the differences between exempt supplies and zero rated supplies:
  - (1) A trader dealing in zero rated supplies is a taxable trader whereas the trader dealing in exempt supplies is not a taxable supplier for the purposes of VAT.
  - (2) A trader dealing in zero rated supplies may be permitted to register for VAT whereas a trader dealing in exempt supplies cannot be permitted to register for VAT.
- (3) A trader dealing in zero rated supplies can claim input VAT incurred on purchases and expenses whereas a trader dealing in exempt supplies cannot claim input VAT.
- (b) (i) (1) The claim is made on or after 27 January 1996
  - (2) The debt must have been outstanding for 18 months or more
  - (3) The debtor must have been declared insolvent by a Court of law.
  - (ii) The following are steps to be followed in claiming for the bad debt relief:
    - (1) The supplier must make a claim from the Administrator/Receiver/Liquidator for VAT inclusive amount that he is owed by the insolvent debtor.
    - (2) Obtain a written statement from the Administrator/Receiver/Liquidator to the effect that the debtor is insolvent and that he cannot pay the debt.
    - (3) Claim a credit for the amount of VAT remitted in respect of the bad debt by adding the bad debt to the input tax incurred on domestic purchases in the appropriate box of the VAT return.
    - (4) ZRA has to be satisfied that claims to bad debts relief are correct, suppliers claiming Bad Debts relief should retain a copy of the tax invoice issued to the debtor in connection with the supply that later became a bad debt.
    - (5) Evidence that the VAT being claimed as bad debt relief had been remitted to ZRA.

- (6) Copies of correspondence referred to above.
- (c) For the late submission of the VAT return, the penalty would be:

1,000 penalty units x 10 days

= .30 x 1000 X 10 days

= K3,000

• For the late payment of VAT, the penalty would be:

= 0.5% x K38,400 x 10 days

= K1,920

• There will also be interest on overdue tax as follows:

= (13% +2%) x K38,400 x 10/365

= K158

#### SOLUTION THREE

- (a) The strategies used to attain the PTA objectives are:
  - Reduction and elimination of trade barriers on selected goods traded within the area.
  - Cooperation in customs through simplification and harmonization of customs procedures and regulations.
  - Introduction of rules of origin to determine which goods will receive preferential treatment.
  - Granting of transit rights to all transporters when coming rom or entering other member States or third countries.
  - Clearing and payment arrangements to promote trade in goods and services within the sub region
  - Cooperation to develop coordinated and complementary policies and systems in transport and communications.
  - Cooperation in the field of industrial development in order to promote selfsustained industrialization within PTA.
  - Cooperation in the area of agricultural development so as to raise production and supply of food to coordinate the export of agricultural commodities.
  - Simplification and harmonization of trade documents and procedures in the area
  - Interventions to assist the least industrialized member states such as special considerations in allocating multinational industries.
- (b) Mechanism to promote intraregional integration:
  - Stock exchange to bring about a capital market in the region an equity fund subscribed by western institutional investors to facilitate investment in the region
  - Revolving fund for supporting the women in business with a targeted capitalization of USD360 million
  - USD 130 million reserve fund under the PTA Bank to support the operations of the clearing house.
- (c) Five (5) main focus areas of the Customs Union.
  - The internal free trade area

- Relations with third countries including application of the CET.
- Trade remedies
- Export promotion
- Dispute settlement
- (d) Supplies onwhich INPUT VAT is non claimable.
  - Motor cars and expenses thereon
  - Consumables such as stationery, lubricants and spare parts
  - Entertainment of customers
  - Telephone and internet connectivity bills
  - Entertainment of suppliers

# SOLUTION FOUR

(a) Functions of the customs and excise division of Zambia Revenue Authority (ZRA)

#### Revenue Collection

The division is responsible for the collection of customs duty, excise duty, import VAT, fuel levy and dumping duty.

# • Protecting local industry

The division is responsible for protecting Zambian industries from unfair competition using various means under the Customs and Excise Act, eg levying protective duties to discourage excessive importation of targeted goods, offering of rebate of duty on raw materials used in the manufacture of certain goods specified in the Act and exercising alternative duty rates such that a higher amount is levied.

# • Prevention of smuggling

Smuggling takes place when goods are imported or exported without being cleared by the customs so that trade taxes are not charged on them. Goods smuggled present unfair competition to those that are subjected to Customs and excise duties.

# Providing trade data and statistics

The Zambia Revenue Authority is obliged to provide trade data to the Government through certain agencies such as Bank of Zambia (BOZ), Central Statistical office. This information is used for various purposes including planning and policy formulation.

# • Protecting the public from harmful goods

The Division is charged with other functions such as protecting the public by seizing dangerous goods such as narcotic and psychotropic substances, pornographic materials, protecting plant and animal life by ensuring compliance with the laws of the Republic.

#### (b) **Powers of the Customs and Excise officer**

- Enter any shop, office, store, structure or enclosed area for making such examination and enquiry as he considers necessary
- Demand for any book, document or thing which is required under the Act
- Examine and make extracts from and copies of such books and documents
- Take with him in such premises an Assistant who may be a police officer.

- (c) main matters a Customs station manager will consider when inspecting a Bonded Warehouse
  - The Warehouse must be conveniently situated ie within 20km from the controlling office.
  - The warehouse must be secure and separate from retail outlets
  - The doors must be strong (grilled doors are recommended) and have a provision for a customs lock.
  - Access into the warehouse is restricted.
- (d) VAT treatment of a cash discount offered to customers

A cash discount is always deducted in arriving at the taxable value of the supply whether or not payments is made within stipulated time frame.

#### SOLUTION FIVE

#### (a) (i) COMPUTATION OF VALUE FOR VALUE FOR DUTY PURPOSES

	\$
Cost	3,800
Insurance charges	300
Freight	950
Other incidental costs	600
CIF	5,650
VDP (5,650 x K16.40)	92,660

#### (ii) COMPUTATION OF IMPORT TAXES PAID

	Values	Taxes paid
	К	К
Value for duty purposes	92,660	
Customs duty	<u>16,545</u> 109,205	16,545
Excise duty	21,508	21,508
	130,713	
VAT @ 16%	20,914	20,914
	151,627	
Total taxes paid		58,967

(b) (i)

- (1) The person claiming rebate has been resident outside Zambia for a period of not less than two (2) years before the date of arrival in or returns to Zambia.
- (2) The effects were the property of that person before the date of departure for Zambia from the previous country of residence.
- (3) The effects must be imported at the time of arrival in Zambia or within six (6) months from the date of arrival of that person .

(ii) Goods that are allowable:

(1) All personal effects

- (2) Household effects
- (3) One motor vehicle per family
- (c) The officers from the VAT Section will examine the following documents:
  - (1) Books of accounts Purchases and Sales day books, Cash book and Ledgers.
  - (2) VAT records the VAT account showing sources of the figures on the return.
  - (3) Daily gross takings for Retailers
  - (4) Original copies of purchase invoices (not photocopies)
  - (5) Sales invoices and Receipt books and band records
  - (6) The most recent audited accounts and monthly management accounts
  - (7) Import Records (if you are an importer)
  - (8) Exportation documents (if you are an exporter)

# **END OF SOLUTIONS**



TAXATION PROGRAMME EXAMINATIONS

# CERTIFICATE LEVEL

#### C6: LAW FOR TAX PRACTITIONERS

FRIDAY 17 JUNE 2022

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 question paper consists of FIVE (5) questions of twenty (20) marks each. You <u>MUST</u> attempt all the FIVE (5) 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. 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.
- 6. All workings must be done in the answer booklet.
- 7. Present legible and tidy work.
- 8. 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.

# **ANSWER ALL FIVE (5) QUESTIONS**

# **QUESTION ONE**

(a)	List any five (5) pre-requisites of a valid contract.	(5 marks	;)
(b)	Explain the conditions which must be fulfilled for ratification of relationship.	an agenc (9 marks	•
(c)	State any three (3) classes of shares in a company.	(3 marks	;)
(d)	Explain your legal understanding of a "Floating Charge".	(3 marks	5)
	[Total:	: 20 Marks	]
QUES	TION TWO		
(a)	Identify the organs of the state and explain their functions.	(6 marks	;)
(b)	Explain the two (2) functions of judicial decisions under common law.	(6 marks	)
(c)	State any three (3) advantages and three (3) disadvantages of Legislation.	of Delegate (6 marks	
(d)	Define a mercantile agent. [Total:	(2 marks <b>: 20 Marks</b>	-
<u>QUES</u>	TION THREE		
Explair	n the following:		
(a)	Stoppage in transit	(5 marks	5)
(b)	'The Act of God' as an exception to a carrier's liability.	(5 marks	5)
(c)	Share Capital	(5 marks	5)
(d)	Parties in an agency arrangement.	(5 marks	;)
	[Total	: 20 Marks	;]
<u>QUES</u>	TION FOUR		
(a)	Explain the justification given by the courts for the use of the doc judicata'.	ctrine of `re (8 marks	
(b)	Identify any five (5) powers of the Industrial Relations Court.	(10 marks	)
(c)	Define tortious liability.	(2 marks	5)
	[Total	: 20 Marks	;]
<u>QUES</u>	TION FIVE		

(a) Define the term "Receivership." (2 marks)

	[Total: 2	20 Marks]
(e)	Write brief notes on the two (2) main principles of Natural Justice.	(6 marks)
(d)	Distinguish a nominal partner from a general partner.	(4 marks)
(c)	Explain the information required from company promoters prior to the pre a memorandum	paration of (4 marks)
(b)	Explain the powers of the official receiver under Bankruptcy law	(4 marks)

# END OF PAPER

# **C6 SUGGESTED SOLUTION**

#### SOLUTION ONE

- (a) 1. Offer
  - 2. Acceptance
  - 3. Consideration
  - 4. Intention to create legal relations
  - 5. Legality
  - 6. Formality
  - 7. Any 5 of the above

(b) The following conditions must be fulfilled for ratification to be effective:

1. The principal should be identified- the agent must reveal at the time of making the contract that he was acting on behalf of a principal who will subsequently ratify the contract. In **Watson V Davies (1931) ICU 455**, a third party offered to sell property to an agent of a charity (principle). The agent accepted the offer subject to the approval by the full board of the charity. Sometime later, and before board approval, the third party revoked the offer. Thereafter, the board ratified the acceptance and sued for specific performance. It was held that an acceptance by the agent made expressly subject to ratification was a nullity until ratified. There was no binding contract for the charity to sue in breach of contract.

2. The principal must be competent at time of contract- this condition is important especially in the case of contracts entered into on behalf of a company before its incorporation, for rights and obligations cannot attach to a non-existent person. In this condition, the principal must have had the capacity to enter into the contract at the time of contracting and its ratification. In **Kelner V Baxter (1866) LRZ CP 183** it was held that the company was not in existence and had no capacity, rights nor obligation as it was not yet incorporated at the time the agent entered into the contract.

3. Ratification must be of the whole contract- the principal must ratify the contract in total not partially. The ratification must be within a reasonable

time and the contract must be capable of ratification. A contract void from inception cannot be ratified for instance, in the case of **Brook v Hook** (1871) LR6 Exch it was held that, a forged signature cannot be ratified.

(C)

- i. Ordinary shares
- ii. Redeemable shares
- iii. Preference shares
- iv. Employee's shares
- v. Convertible shares

(d) Floating charge is a charge on a class of assets of a company, both present and future.....which class is in the ordinary course of the company's business, changing from time to time until the holders enforce the charge, the company may carry on business and deal with the assets charged.

# SOLUTION TWO

- (a) The three organs of government are legislative, judiciary, and executive. Also known as the three branches. They provide a system of checks and balances to make sure that there is a separation of power so no single organ has too much power over the people. The legislative organ makes the laws of the country and this power should not be delegated to any other person or organ unless the constitution provides as such. The judicial branch is made up of all the courts; its job is to interpret the Laws. These laws are to be interpreted in the manner Parliament intended them to be. Lastly, the executive branch is responsible for enforcing the laws and administering public affairs. It is made up of the president and cabinet. It also looks at issues of policy formulation and day to day running of the country.
- (b) The two functions of a judicial system under common law system are;
  - (i) To define and dispose of the controversy before the court in accordance with the doctrine of **res judicata** meaning that the matter is decided and the decision is final but may be appealed to a superior court.
  - (ii) To create law, but within the narrow bounds set by the facts of the case before it.
- (c) Advantages of Delegated Legislation
  - Delegated Legislation Saves Time of the Parliament
  - Delegated Legislation Makes for Flexibility
  - It involves experts
  - It is fast
  - Delegated Legislation can be easily done in Consultation with the Interests Affected

Disadvantages of Delegated Legislation

- Undemocratic Procedures
- Apparent Lack of Debate
- The Wording of Delegated Legislation-Another problem when it comes to delegated legislation is the wording that can be obscure and technical in nature that should make it hard to understand.
- The power is taken away from the owners bestowed with it
- (d) **Mercantile agent** is one who is authorized by a principal to buy or sell goods, and/or to raise a loan by using the principal's goods as a collateral.

# SOLUTION THREE

- (a) Stoppage in transit this is one of the seller's remedies if the buyer defaults payment. He will have the right to stop the goods in transit if he learns that the buyer is incapable of paying for them. The goods must not have been delivered to the buyer. He loses this right if he sub-deals or sub-sales the goods whilst in transit *Expert Golding & Co. Ltd (1880) 13 Ch D 628.* For this to work, the property in the goods must not have passed, the seller must have been unpaid, the buyer becoming insolvent whilst goods are in transit and the goods must be in course of transit, but not yet in possession of the carrier.
- (b) *The Act of God as an exception to carrier's liability* means that when an act which is not of his fault and beyond his power causes damage to the goods under his care, he shall not be liable as the circumstances were unnatural.
- (c) *Share capital* consists of all funds raised by a company in exchange for shares of either common or preferred stock. The amount of share capital or equity financing a company has can change over time. A company that plans to raise more equity and be approved to issue additional shares, thereby increasing its share capital.
- (d) Parties in an agency arrangement The agency arrangement has three parties, namely the principal, agent and the third party. The principal is the party on whose behalf the agent acts, he is the beneficiary of the contract. The **agent** is the person through whom acts are done, he is the one sent by the principal. The **third party** is the one who enters into a contract with the principal through the agent. He has no contract with the agent, unless where the principal is not disclosed.

# SOLUTION FOUR

(a)

- 1. Equality- the application of the same rule to successive similar cases results in equality of treatment for all who come before the court.
- Predictability consistently following precedents contributes to predictability in future disputes.
- 3. Economy use of established criteria to settle new cases saves time and energy.
- 4. Respect adherence to earlier decision shows due respect to the wisdom and experience of prior generations of judges.

(b)

- 1. To inquire into and make awards and decisions in collective disputes and any other matter under the Act.
- 2. To interpret the terms or awards, collective agreements and recognition agreements.
- 3. To do substantial justice between the employer and the employee
- 4. To generally inquire into and adjudicate upon any matter affecting the collective rights, obligations and privileges of employees, employers and representative organizations or any matter relating to industrial relations.
- 5. To commit and punish for contempt any person who disobeys or unlawful refuses to carry out, or to be bound by an order made against him by the court.
- 6. To perform such acts and carry out such duties as may be prescribed under the Industrial and Labour Relations Act.
- (c) Tortious liability is liability which arises where there is breach of duty primarily fixed by law

# SOLUTION FIVE

- (a) Receivership is a situation in which an institution or enterprise is held by a receiver, a person "placed in the custodial responsibility for the property of others, including tangible and intangible assets and rights "especially in cases where a company cannot meet financial obligations or enters bankruptcy.
- (b) Duties and powers of the official receiver as receiver and manager. The receiver and manager has the power to insure property subject to his appointment against damage by fire and collect any rental income.
  - He/she may also pay out small sums of money in respect of repairs or may allow such to a tenant.
  - Appoint /terminate the appointment of special mnager of the debtors estate
  - Appoint a deputy official receiver
- (c) Administer oaths.
- (d) The information to be obtained from promoters is
  - Business Name
  - Nature of business
  - Nominal Capital

Any other information deviating from objects clause

Nominal Partner and General Partner

Norminal Partner - In a partnership business, there are mainly two types of patners to the partnership. A nominal partner is one who is dormant that is, they do not participate in the daily running of the partnership. They contribute capital towards the establishment of the partnership.

General Partnership – this is a partner who is involved in the daily running of the partnership business. They also contribute capital towards the establishment of the partnership. Both the nominal and general partner have no limited liability for the debts of the partnership.

- (d) The two principles are;
  - Nemo judex in Causa Sua-This means that no man should be a judge in his own cause The essence of a fair judicial decision is that it should be made by an impartial judge. Therefore, an employee facing a disciplinary charge should be accorded a chance to exculpate himself and even appeal to a person or body which is independent of the charging person.
  - Audi Alteram Partem- This rule means that both parties of the dispute must be heard. This position was fortified in the case of R v. Cambridge University (1723)

#### **END OF SOLUTIONS**



#### TAXATION PROGRAMME EXAMINATIONS

#### DIPLOMA LEVEL

#### D1: BUSINESS INFORMATION MANAGEMENT

#### WEDNESDAY 15 JUNE 2022

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 question paper consists of **FOUR (4)** questions of Twenty Five (25) marks each. You must attempt all the **FOUR (4)** 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.

#### Answer all FOUR (4) questions.

# **QUESTION ONE**

Introduction of a computer based information systems in an organisation can result in a paradigm shift in how the organisation operates, this could, start with implementation bottlenecks up to realisation of tangible benefits.

# **Required:**

(a)	Define the term office automation.	(2 marks)					
(b)	Describe in detail how the following five (4) business processes in an organist could be affected by office automation.						
	(i) Routing manual data operations	(4 marks)					
	(ii) Manual paper management	(4 marks)					
(c)	Explain the specific problems associated with:						
	(i) Measuring the costs of project	(2 marks)					
	(ii) Measuring the benefits of projects	(2 marks)					
(d)	Management Information Systems (MIS) are computer based system	that process					
	data from mainly internal sources into information that can be use	d to support					
	decision making.						
	State five (5) characteristics of MIS	(5 marks)					
()							

(e) Identify any six (6) security risks associated with Information Systems. (6 marks)

# [Total: 25 Marks]

# **QUESTION TWO**

An Executive Information System (EIS) has been defined as 'a computer-based system under the direct control of the executive, which provides the executive with current status information on conditions internal and external to the organisation. **Required:** 

- (a) State any five (5) characteristics of an EIS and clearly identify why these characteristics discriminate such a system from other information systems used by management. (10 marks)
- (b) Explain how the Data Warehousing approach improves Information Management in an organisation. (10 marks)
- (c) Downsizing is an essential feature of competitive advantage, that the existing power base of IT which is highly centralised will be broken up and replaced by a number of user driven sites which operate on an autonomous basis.

(i)	Explain the rationale behind downsizing	(2 marks)
<i></i>		<i>i</i>

(ii) Explain the problems related to downsizing (3 marks)

# [Total: 25 Marks]

# **QUESTION THREE**

(a) Castle-art suggested that the identification of critical success factors for a business could assist in determining the optimum information system to support business decision making.

#### **Required:**

Explain by means of relevant decision and examples how an information system could be re-designed to support the critical success factor *'keep customers.* 

(10 marks)

(b) In today's dynamic global business environment, forming a virtual company can be one of the most important strategic uses of information technology. Web-based technologies are becoming a 'standard' tool for many traditional companies.

#### **Required:**

Explain any two (2) advantages and two (2) disadvantages of advertising on a website compared to paper-based catalogues. (8 marks)

- (c) Systems implementation is often complex and as a result things can go wrong.
  - (i) Outline four (4) project management tools which could be used to improve the management of systems projects. (4 marks)
  - (ii) State any three (3) ways of how groupware can be used in a business organisation. (3 marks)

# [Total: 25 Marks]

# **QUESTION FOUR**

(a) The Internet and its associated infrastructure and services have permeated all sectors of Zambian society. This has introduced risks to accountants as they process financial data.

#### **Required:**

- (i) Give and explain three common crimes which could be committed by the users of the internet. (2 marks)
- (ii) Indicate any legislation you are familiar with which an accountant could use to guide in the proper use of an information technology based information system.
- (b) Implementation of a new computer system has been defined as the task of putting into practice what has so far been essentially a theoretical design exercise.

#### **Required:**

- (i) Comment on any five (5) implementation procedures or steps emphasising on the essential aspects of those procedures. (10 marks)
- (iii) Suggest three (3) strategies that may overcome user resistance to new information systems. (6 marks)
- (c) A Project Manager has been appointed to investigate the project requirements, with the brief to start a systems analysis and prepare detailed plans. An initial budget has been allocated to the project, although there are no deadlines for a feasibility report or appropriate budget monitoring systems in place.

#### **Required:**

Explain any three (3) other main factors that affect the overall risk of failure of IT projects within organisations (6 marks)

# [Total: 25 Marks]

**END OF PAPER** 

#### **D1 SUGESTED SOLUTIONS**

#### SOLUTION ONE

(a) Office automation is the automation all or some office operations, these ranges from inter office communication and document management storage

(b)

- Manual paper management Office automation ensure that there is less hard copy used in the organisation as most of the manual documents are converted into electronic to facilitate easy retrieval and storage
- ii) **Routing manual data operations** -The automation ensures that data in large quantities is processed quickly and stored electronically.

(c) Problems associated with measuring IS project costs and benefits

**Costs** – can normally be broken down into three main categories

- One-off costs usually capital costs such as hardware, software, accommodation, additional equipment, consumables and one-off revenue costs such as installation and development costs, training and consultancy fees.
- On-going costs staff salaries, on going consumables, maintenance and support costs, security and financing costs
- Intangible costs these costs are much less easy to quantify and difficult for organisations to measure as part of the cost benefit

exercise. There is also likely to be learning curve effect when users are becoming familiar with the new system

Benefits - these can easily be quantified and categorised as tangible or intangible

- Tangible include direct cost saving of a new information system due to reduced staff costs and consumables. Also direct costs could include increased operating capacity resulting in greater volume of transactions which could directly improve turnover or reduce overtime costs.
- Intangible these are much more difficult to quantify and may include provision of better decision making information, improved customer satisfaction due to better service and the ability to gain competitive advantage due to product differentiation or improved cost reduction.

# (d) Characteristics of MIS

- Supports structured decisions at operational & management control levels
- Designed to report on existing operations
- Have little analytical capability
- Relatively inflexible
- Have an internal focus

# (e) Security Risks for IS

- Viruses
- Hackers
- Eavesdroppers
- Hoaxes
- Denial of Services

- Threads of Confidentially (Legal control)
- Threat of Integrity (errors of input)
- Threat of availability

#### **SOLUTION TWO**

# (a) Characteristics of an EIS

- Easy to use, screen-based systems with mouse, icons and touch-screen facilities, giving easy access to data
- Presentation aids, pictorial or graphical means, so that information can be conveyed without too many trivial choices of scale, colour and layout
- Summary level data, captured from the organisation's main systems, which might involve integrating the executive's desk top micro with the organisation's mainframe
- A facility which allows the executive to drill down from higher to lower levels of information
- Data manipulation facilities such as comparison with budget and external information
- Tools for analysis, including ratio analysis, forecasts, what if analysis and trends
- A template system which allows the same type of data to be presented in the same format, irrespective of changes in the volume of information required.

# (b) Data warehousing and Data Mining

• Data warehousing integrates key operational data from around the company and from external sources in a form that is consistent, reliable and easily available for reporting.

- A Data warehouse stores data from current and previous years that have been extracted from various operational databases of an organisation.
- Data warehouse is a central source of data that have been screened, edited, standardised and integrated so they can be used by managers and other end users for a variety of forms of business analysis, market research and decision support.
- Data warehouses are significantly larger than traditional operational databases are often a combination of operational databases that are updated frequently. They are unsuitable for applications that require up-to-the –minute data such as airline reservation
- Data warehouses not only offer improved information, but they make it easy for decision makers to obtain it. They include the ability to model and remodel the data, which enables decision makers to access the data as often as they need without affecting the performance of the underlying operational systems
- In data mining, data in a data warehouse are processed to identify key factors and trends in historical patterns of business activity that may go undetected
- Data mining can be used to help managers make decisions about strategic changes in business operations to gain competitive advantage in the market place
- Organisations are willing to invest in systems that will give the organisation a competitive edge

95

• Organisations can use data mining software to develop more accuracy in marketing and pricing its products and services

# (c) (i) Rational for downsizing

- The need for cheaper technology
- Decentralisation of the organisation's computing function to individual departments
- The need to reduce staff
- Changing IT strategy for organisation

# (ii) Problems of downsizing

- The organisation still has to buy new hardware and software to run on the new machines
- Staff will have to be trained
- Security may be less than adequate when the organisation's data control and backups are being looked after by inexperienced users (Poor security)

# SOLUTION THREE

- (a) Keep customer happy
  - CSF Keep customers happy

# **Key decisions**

- What products to supply
- Pricing each product
- What features each product should have
- What customer services to offer

# Information required ( for what products to supply)

- Products sold to customers now
- Products sold by rivals
- New products in development
- What customers want that they can't get now

# Information required ( for pricing each product)

- Cost of the products
- Prices charged by rivals
- Value that customers perceive in the product
- Level of demand and supply

# (b) (i) Advantages of advertising on website

- It's cheaper in terms of using paper, printing and postage costs will be avoided
- Worldwide audience is possibly available, globalisation of product as opposed to limited mailing lists
- A website is not restricted to text and static images, it can add moving pictures and sound. Can offer attractive communication
- Online ordering can be offered. This encourages immediate ordering without form filing
- Web site registration and cookie technology will enable sites to recognise and personalise customer communication

# (ii) **Disadvantages of advertising on website**

- Set up costs can be substantial for multimedia online sites
- Maintaining the site is a task that must be resourced and documented.
   A clear policy/ standards must be defined and followed
- The danger of the perception of an out of date site must be avoided. Any such perception will show the company in an unprofessional light and discourage rather than encourage prospective customers.
- Not all potential customers have the equipment, ability or inclination to use the internet. Internet sales have not reached the predicted targets during the last few years.

# (c) (i) **Project management tools**

- Network Analysis (Critical Path Analysis) breaking down the project into activities in their logical sequence order and duration
- **Gantt chart** a horizontal bar chart demonstrating activities in sequence and their duration
- **Resource histogram** a stacked bar chart showing the number and mix of staff available/ required over the duration of the project
- Project budget the use of project management software and spreadsheets allows the monitoring of project actual costs against budget in order to assist financial control over the duration of the project

# (ii) Uses of groupware in business organisation

- Electronic mail distribution
- Meetings and conference scheduling
- Sharing of documents across the entire network
- Project management and maintenance

#### SOLUTION FOUR

The Internet and its associated infrastructure and services have permeated all sectors of Zambian society. This has introduced risks to accountants as they process financial data.

a)

- i. Unauthorised access with the hacker having knowledge of the system
- ii. Unauthorised access with the intention of gaining access to cause harm
- iii. UK computer misuse act made hacking an offence
- b) (i) Implementation is the most crucial stages in the system development life cycle. It's all stages that users will be involved and its important to instil confidence in the users that the system will achieve all its objectives and work effectively.

Factors which need to be considered include the following:

- Responsibility for implementation people from different departments will be involved in the implementation and this will present the analyst with the practical problems of controlling the activities of people outside his own department.
- System testing testing should involve the people who will be operating the system. Testing is an on-going activity throughout the whole of the design and development phases
- Education educating the users should begin as soon as it is known that a new system is to be designed. Education concerns the reason for change, the benefits to be produced by the new system and the way in which it will affect the organisation's position in the market place and competitive advantage

- Training the users should be trained as to what to do should things go wrong and where possible, how to rectify any mistakes. Training sessions should be frequent and not too long in duration
- File conversion the conversion must be fully planned and continually monitored. Existing data should be checked to ensure that it is correct before being converted onto the new system.
- Changeover there are basically four methods of changeover, which can be used when implementing a system. Direct, Parallel, Pilot & Phased. Once any errors have been identified and corrected other systems can be directly changed.

# (ii) Strategies to overcome user resistance to new IS

- People-oriented theory user training and education to show the benefits of the system, interviewing user and then finding methods for overcoming reasons
- System-oriented theory user education, improving human factors, ie ergonomics, user participation, ensuring system fits the organisation requirements
- Interaction theory restructure incentives for users so that they are not dependent on system usage, try to address organisational problems prior to the introduction of any new system, promote user participation and encourage organisation-wide team-work

# (c) Factors that affect the overall risk of failure of IT projects within organisations

Systems differ considerably on key factors such as size, project structure and technology being used. These factors will combine to provide a risk assessment on how likely it is for a project to fail.

 Project size – monetary expenditure, project duration, number of staff involved, number of business units affected. Smaller projects are literally more controllable because the entire project can easily be monitored by fewer people.

- Project structure users know exactly what they want and the system can be planned with outputs and processes clearly defined. A very clear project plan is therefore available and can be followed easily as the project progresses and so the likelihood of reaching the end of the project with a successful system implementation is high.
- Experience with technology IT keeps changing, which leads to the need for continued training and development of IT staff. Where training is lacking, or technology being used is new and unfamiliar, then there is a higher risk of project failure. In these situations there is a higher risk of technical problems that can't be solved, which will result in the failure of the project.



TAXATION PROGRAMME EXAMINATIONS

DIPLOMA LEVEL

**D2: FINANCIAL MANAGEMENT** 

FRIDAY 17 JUNE 2022

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 question paper consists of **FOUR (4)** questions of Twenty Five (25) marks each. You must attempt all the **FOUR (4)** 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. 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.
- 6. All workings must be done in the answer booklet.
- 7. Present legible and tidy work.
- 8. Graph paper (if required) is provided at the end of the answer booklet.
- 9. Formulae, Present Value, and Annuity tables are provided at the end of this question paper.

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

#### Attempt all FOUR (4) Questions.

# **QUESTION ONE**

SPIKE enterprises is a small printing company that plans to procure a new printing machine with a life span of five (5) years. The cost of the machine is K18 million payable immediately. The machine will be sold for scrap just at the beginning of the sixth year and the scrap value is estimated to be 10% of the initial purchase cost of the machine. Additional investment in working capital of K1.5 million will be required at the start of the first year of operation and subsequently expected to increase by 8% per year.

The company has a special contract with the Football Association of Zambia to print monthly football magazines. The contract requires the company to print 100,000 copies of magazines per month and the contract price for each copy of magazine is K30 in the first year. Subsequently, the price will increase by 6% per year. The expected variable costs are K25 per copy produced and expected to increase by 5% per year from the second year. Incremental fixed costs arising from the operation of the machine will be K150,000 per month.

The company pays profit tax one (1) year in arrears at an annual rate of 30% per year. The machine attracts capital allowances of 20% per year on a reducing basis. SPIKE enterprises has an after-tax cost of capital of 12% which it uses as a discount rate in investment appraisal.

#### **Required:**

(a) Calculate the Net Present Value (NPV) of investing in the new machine and advise whether the investment is financially acceptable.

(18 marks)

(b) Calculate the Internal Rate of Return (IRR) of investing in the new machine and advise whether the investment is financially acceptable.

(7 marks) [Total: 25 Marks]

#### **QUESTION TWO**

The following forecasted financial information relates to MKS Plc for the next four (4) years:

Year	1	2	3	4
	K'million	K'million	K'million	K'million
Profit before tax	50	60	70	75
Taxation	12.5	15	17.5	18.75

The company has in issue seventy million ordinary shares and cost of equity of 16.5%. The before tax cost of debt is 10%. The capital structure is represented by 70% equity and 30% debt. The management of MKS Plc are concerned about the cash flows after year 4 which are expected to grow by 3% per year for the foreseeable future. The accounting depreciation taken into account when forecasting the profits is K5 million per year.

#### **Required:**

(a) Calculate the value per share of the company based on the present value of future cash flows. (17 marks)

(c) Explain the relationship between the interests of shareholders, managers and a company's long term creditors. (8 marks)

[Total: 25 Marks]

#### **QUESTION THREE**

iCONS Ltd is a listed company selling computer software. Its profit before interest and tax (PBIT) has fallen from K5 million to K1 million in the last year and its current financial position is as follows:

	K′000	K′000
Non-current assets		
Property, plant and	3,000	
equipment		
Intangible assets	<u>8,500</u>	11,500
Current assets		
Inventory	4,100	
Trade receivables	<u>11,100</u>	<u>15,200</u>
Total assets		<u>26,700</u>
Current liabilities		
Trade payables	5,200	
Overdraft	4,500	
		9,700
Equity		
Ordinary shares	10,000	
Reserves	<u>7,000</u>	<u>17,000</u>
		<u>26,700</u>

iCONS Ltd has been advised by its bank that the current overdraft limit of K4.5 million will be reduced to K500,000 in two months' time. The Finance Director of iCONS Ltd has been unable to find another bank willing to offer alternative overdraft facilities and is planning to issue bonds on the stock market in order to finance the reduction of the overdraft. The bonds would be issued at their par value of K100 per bond and would pay interest of 9% per year, payable at the end of each year. The bonds would be redeemable at a 10% premium to their par value after ten (10) years. The Finance Director hopes to raise K4 million from the bond issue.

The ordinary shares of iCONS Ltd have a par value of K1.00 per share and a current market value of K4.10 per share. The cost of equity of iCONS Ltd is 12% per year and the current interest rate on the overdraft is 5% per year. Taxation is at an annual rate of 30%.

#### **Other financial information:**

Average gearing of sector (debt/equity, market value basis):	10%
Average interest coverage ratio of sector:	8 times

#### **Required:**

- (a) Calculate the after-tax cost of debt of the 9% bonds.
- (b) Calculate and comment on the effect of the bond issue on the weighted average cost of capital of iCONS Ltd, clearly stating any assumptions that you make.

(5 marks)

(4 marks)

- (c) Calculate the effect of using the bond issue to finance the reduction in the overdraft on:
  - (i) the interest coverage ratio;

(2 marks)

(ii) gearing.

(2 marks)

(d) Evaluate the proposal to use the bond issue to finance the reduction in the overdraft and discuss alternative sources of finance that could be considered by iCONS Ltd, given its current financial position.

(12 marks)

#### [Total: 25 Marks]

#### **QUESTION FOUR**

TOP Plc has five (5) million shares currently trading at K7.6 per share. In the past five (5) years the company has made the following dividend payments:

Years	1	2	3	4	5 <i>(current)</i>
Dividend per share(ngwee)	42	48	54	56	58

The growth in dividend is expected to be 6% per year. Top Plc has a 10% redeemable debt trading at K1,100 with a book value of K15 million and five (5) years to maturity. The debt was issued at a par value of K1,000 and redeemable at a premium of 6%. Corporate tax is payable in the year that taxable profit arise at 25% per year.

#### **Required:**

(a) Calculate the weighted average cost of capital for TOP Plc.

(13 marks)

(b) Distinguish between weak form and semi-strong form of stock market efficiency.

(4 marks)

(c) Explain the reasons consolidated financial statements are useful to the users of financial statements (as opposed to just the parent company's separate (entity) financial statements).

(8 marks) [Total: 25 Marks]

#### **END OF PAPER**

#### Formulae

Modigliani and Miller Proposition 2 (with tax)

$$\mathbf{k_e} = \mathbf{k_e^i} + (1 - T)(\mathbf{k_e^i} - \mathbf{k_d}) \frac{V_d}{V_e}$$

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

 $\mathsf{E}(\mathsf{r}_{\mathsf{i}}) = \mathsf{R}_{\mathsf{f}} + \beta_{\mathsf{i}}(\mathsf{E}(\mathsf{r}_{\mathsf{m}}) - \mathsf{R}_{\mathsf{f}})$ 

#### The asset beta formula

$$\beta_{a} = \left[\frac{\mathsf{V}_{\mathsf{e}}}{(\mathsf{V}_{\mathsf{e}} + \mathsf{V}_{\mathsf{d}}(1 - \mathsf{T}))}\beta_{\mathsf{e}}\right] + \left[\frac{\mathsf{V}_{\mathsf{d}}(1 - \mathsf{T})}{(\mathsf{V}_{\mathsf{e}} + \mathsf{V}_{\mathsf{d}}(1 - \mathsf{T}))}\beta_{\mathsf{d}}\right]$$

#### 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

$$S_1 = S_0 x \frac{(1+h_c)}{(1+h_b)}$$
  $F_0 = S_0 x \frac{(1+i_c)}{(1+i_b)}$ 

#### Modified Internal Rate of Return

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

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

					Discouri	Liale (I)					
Period (n)	s 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 12 13 14 15	0.896 0.887 0.879 0.870 0.870 0.861	0·804 0·788 0·773 0·758 0·743	0·722 0·701 0·681 0·661 0·642	0·650 0·625 0·601 0·577 0·555	0·585 0·557 0·530 0·505 0·481	0·527 0·497 0·469 0·442 0·417	0·475 0·444 0·415 0·388 0·362	0·429 0·397 0·368 0·340 0·315	0·388 0·356 0·326 0·299 0·275	0·305 0·319 0·290 0·263 0·239	11 12 13 14 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

Discount rate (r)

#### Annuity Table

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

					Discoun	t 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	0.3208	0.3531	0.3554	0.3577	0.3599	0.3621
$1 \cdot 1$	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
0.0	0 4770	0 4770	0.4700	0.4700	0.4700	0.4700	0.4000	0.1000	0.4010	0 4017
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
2·5 2·6	0.4958 0.4953	0.4940 0.4955	0·4941 0·4956	0·4943 0·4957	0·4943 0·4959	0.4946 0.4960	0·4948 0·4961	0·4949 0·4962	0·4951 0·4963	0·4952 0·4964
2.0	0.4955 0.4965	0.4955 0.4966	0·4958 0·4967	0·4957 0·4968	0·4959 0·4969	0·4980 0·4970	0·4981 0·4971	0·4982 0·4972	0·4983 0·4973	0·4984 0·4974
2.8	0·4985 0·4974	0.4988 0.4975	0·4987 0·4976	0·4988 0·4977	0·4989 0·4977	0·4970 0·4978	0·4971 0·4979	0·4972 0·4979	0.4973	0·4974 0·4981
2.9	0.4974 0.4981	0·4975 0·4982	0·4978 0·4982	0.4977	0·4977 0·4984	0·4978 0·4984	0·4979 0·4985	0·4979 0·4985	0·4980 0·4986	0.4981
2.9	0 4501	0 4 50 2	0 4502	0 4900	0 4 504	0 4504	0 4900	0 4 50 5	0 4500	0 4900
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990
00	0 - 507	5 4 5 6 7	5 4507	0 4000	0 4000	0 4000	0 4000	0 4000	5 4550	0 7000

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.

### **D2 SUGGESTED SOLUTIONS**

## SOLUTION ONE

a) FINANCIAL EVALUATION USING NPV								
Year	0	1	2	3	4	5	6	
Selling price -		30	32	34	36	38	-	
Variable costs -		25	26	28	29	30	-	
Contribution per unit	-	5	6	6	7	7	-	
Units'000 -		1,200	1,200	1,200	1,200	1,200	-	
Contribution -		6,000	,	7,375	8,148	8,984	-	
Fixed Costs -		1,800	,	1,800	1,800	1,800	-	
Taxable cash flows		4,200	4,860	5,575	,	,	-	
	0		-126	-146	-167	-190	-216	
Initial Cost	-18,00	0	-	-	-	-	1,800	
Tax relief -		0	1,080	864	691	553	1,672	
5 1	-1500		-130	-140	-151	2,041	-	
	•	•	5,684	•	•	,	7 1,456	
Discount@12%	1.000			0.712		0.567	0.507	
	-19,50	0 3,643	4,530	4,381	4,274	6,457	738	
NPV 4,524								
Conclusion: based on	the NP	V calcul	ated ab	ove the	project	is viab	le.	

b) INTERNAL RATE OF RETURN

Year	0	1	2	3	4	5
6						
Net Cash flow	-19,500	4,080	5,684	6,153	6,721	
11,387 1,456						
Discount@20%	1.000	0.833	0.694	0.579	0.482	
0.402 0.335						
Present Values	-19,500	3,399	3,945	3,562	3,239	
4,578 488						
NPV -289						

IRR= 12% + 4,524/ (4,524+289) (20%-12%)

IRR= 19.52%

Conclusion: based on the IRR calculated above the project is viable.

Working Capital Incremental	•	1,750 1,890 -130 -140	2,041 2,204 -151 2,041	
Capital Allowances	WDA	CA@20%	Tax relief@ 30%	Year Available
1	18,000	3,600	1,080	2
2	14,400	2,880	864	3
3	11,520	2,304	691	4
4	9,216	1,843.2	552.96	5

5 7,372.8 5,572.8 1,671.84	
----------------------------	--

Scrap 1,800

S/N	DETAILS	
a)	Sales	
	Variable costs	
	Fixed costs	
	Taxation	
	Investment cost	
	Capital allowances	
	Working capital	
	Discount factor	
	NPV	
	Appropriate conclusion	
	Sub-total	
b)	1 mark per variable	
	IRR	
	Appropriate conclusion	
	Total	

## SOLUTION TWO

Cost of debt = 10% (1-0.25) = 7.5%Cost of capital =  $(16.5\% \times 0.7) + (7.5\% \times 0.3) = 14\%$ 

Years	1	2	3	4
	K'm	K'm	K'm	K'm
Profit before tax	50	60	70	75
Add back depreciation	5	5	5	5
Cash flow	55	65	75	80
Discount@14%	0.877	0.769	0.675	0.592
Present Values	48	50	51	47

Value per share(640/70)	9.14
Value of Company	640
CF4 (1+g)/Ke-g	443
Present values beyond year 4	
Present values 1 to 4 years	196

#### Tax = 12.5/50 = 25%

- (f) Their relationship involves the following:
  - Management may decide to raise finance for a company by taking out long term or medium term loans. They might well be taking risky investment decisions using outsider's money to finance them.
     Managers are agents who act on behalf of the shareholders (the principal). The managers may make decisions to award themselves bonuses at the expense of the company's profitability. The managers must make decisions which will maximise shareholder's wealth since shareholders are the providers of capital.
  - 2) Investors who provide debt finance will rely on the company's management to generate enough net cash inflows to make interest payments on time, and eventually to repay loans. However long term creditors will often take security for their loan perhaps in the form of a fixed charge over an asset (such as a mortgage on a building). Bonds are also often subject to certain restrictive covenants which restrict the company's right to borrow more money until the debentures have been repaid.

If a company is unable to pay what it owes its creditors, the creditors may decide to exercise their security or to apply for the company to be wound up.

3) The money that is provided by the long term creditors will be invested to earn profits, and the profits (in excess of what is needed to pay interest on the borrowing) will provide extra dividends or retained profits for the shareholders of the company. In other words, shareholders will expect to increase their wealth using creditor's money.

## SOLUTION THREE

(a) Calculation of cost of debt

Year	Cash flow	К	8% discount factor	Present value (K)
0	Issue price	-100	1	-100
10	After-tax interest	6.3	6.710	42·27
10	Redemption	110	0.463	50·93
				(6.80)

After-tax interest payment =  $9 \times 0.7 = K6.30$  per bond

Year	Cash flow	К	6% discount factor	Present value
	<b>.</b> .	100		
0	Issue price	-100	1	-100
10	After-tax	6.3	7.36	46.37
	interest			
10	Redemption	110	0.558	61.38
				7.75

After-tax cost of debt =  $6 + [(8 - 6) \times 7.75/(7,75 + 6.8)] = 6 + 1.1 = 7.1\%$ 

(b) iCONS Ltd does not currently have any long-term debt and so the current weighted average cost of capital (WACC) is the same as the current cost of equity, which is 12%.

Current market capitalization =  $10m \times K4 \cdot 10 = K41$  million

If the company issues K4m of bonds at par with an after-tax cost of debt of 7.1%, the WACC will be  $[(41m \times 12) + (4m \times 7.1)]/45m = 11.6\%$ 

The effect of the bond issue is therefore to reduce the WACC from 12% to 11.6% per year.

This calculation assumes that the current share price does not change as a result of the bond issue. In reality, the share price might change as a result of the change in financial risk. This calculation also assumes that the overdraft is not relevant in calculating the WACC, when in reality the size of the overdraft might make it a significant factor.

Note: WACC calculations that include the overdraft are also acceptable.

## (c) (i) Interest coverage ratio

Current interest =  $K4.5m \times 5\%$  = K225,000 per year Current interest coverage ratio = 1m/0.225 = 4.4 times Interest from bond issue =  $K4m \times 9\%$  = K360,000 per year Interest on remaining overdraft =  $K0.5m \times 5\%$  = K25,000 per year Total interest = 360,000 + 25,000 = K385,000 per year Revised interest coverage ratio = 1m/0.385 = 2.6 times

## (ii) *Gearing*

Market capitalisation of iCONS Ltd= 10m shares x K4 $\cdot$ 10 = K41 million

Current gearing using market values, excluding overdraft = zero

Revised gearing using market values, excluding overdraft =  $100 \times (4,000/41,000) = 9.8\%$ 

Current gearing using market values, including overdraft =  $100 \times (4,500/41,000) = 11.0\%$  Revised gearing using market values, including overdraft =  $100 \times (4,500/41,000) = 11.0\%$ 

## Note: full credit could have been obtained whether or not the overdraft had been included in the gearing calculations.

## (d) Interest coverage ratio

The current interest coverage ratio of 4·4 times is just over half of the sector average value of 8 times, although before the fall in profit it was 22 times. As a result of the bond issue, the interest coverage ratio would fall to 2·6 times, which is a dangerously low level of cover.

## Gearing

Whether the bond issue has an effect on gearing depends on whether the gearing calculation includes the overdraft. If the overdraft is excluded, gearing measured by the debt/equity ratio on a market value basis increases from zero to 9.8%. If the overdraft is included, there is no change in gearing, since the bond issue replaces an equal amount of the overdraft. Given the sector average debt/equity of 10%, there does not appear to be any concerns about gearing as a result of the bond issue.

## Security

It is very likely that the bond issue would need to be secured against the tangible non-current assets of iCONS Ltd , especially in light of the recent decline in profitability. However, the bond issue is for K4 million while the tangible non-current assets of iCONS Ltd have a value of only K3 million. It is not known whether the intangible non-current assets can be used as security, since their nature has not been disclosed.

## Advisability of using the bond issue to reduce the overdraft

Considering the significant decrease in the interest coverage ratio as a result of the bond issue and the lack of tangible non-current assets to offer as security, it appears that the proposed bond issue cannot be recommended and would probably be unsuccessful. ICONS Ltd should therefore consider alternative sources of finance in order to reduce the overdraft.

## Alternative sources of finance

Given the recent fall in profit before interest and tax from K5 million to K1 million, any potential investor would initially seek reassurances that ICONS Ltd would continue to be a viable business. The reason for the decline in profitability needs to be determined and the longer-term sustainability of the company needs to be confirmed before further financing is considered.

If longer-term viability is assured, the need for further finance could be reduced by taking measures to reduce costs and increase income, for example through improved working capital management.

If the company pays dividends, consideration could be given to reducing or passing the dividend in order to increase the flow of retained earnings in the company.

Given the problems with interest coverage and security, and the lack of availability of further overdraft finance, equity finance is the first alternative choice that could be considered. While no information has been provided on recent share price changes or on the dividend policy of ICONS Ltd , existing shareholders could be consulted about a rights issue. Using a discount to the current market price of 20% gives a rights issue price of K3·28. A 1 for 8 rights issue at this price would raise K4·1 million, increasing the interest coverage ratio to 50 (1m/0.02m) if the proceeds were used to reduce the overdraft to K400, 000.

If shares were offered to new shareholders, the dilution of existing ownership and control would be small, given that K4 million is only 9% of K45 million (41 + 4). New shareholders would be unlikely to invest, however, if no dividend were on offer.

Sale and leaseback would not raise sufficient finance, given that tangible non-current assets are only K3 million, but this avenue could be explored in conjunction with another source of finance.

Other finance sources that could be considered include convertible bonds or bonds with warrants attached. Improved working capital management could also decrease the amount of finance required.

(d) Comment on interest coverage ratio	1–2		
Comment on gearing	1–2		
Comment on need for security	2–3		
Comment on advisability of bond issue			
Discussion of alternative sources of finance			
Other relevant discussion	1–2		
Maximum			
Total	25		

## SOLUTION FOUR

a) Weighted Average Cost of Capital Cost of equity = Do(1+q) + q

$$\frac{100(1+9)}{9} + 9$$
Po
$$\frac{0.58(1+6\%)}{7.6} + 0.06$$
=14.1%

Cost of debt

Cash flow	Dis@10%	PV	Dis@5%	PV
(1,100)	1.000	(1,100)	1.000	(1,100)
75	3.791	284.33	4.329	324.68
1,060	0.621	<u>658.26</u>	0.784	<u>831.04</u>
NPV		<u>(157.41)</u>		<u>55.72</u>
	(1,100) 75 1,060	(1,100) 1.000 75 3.791 1,060 0.621	(1,100)1.000(1,100)753.791284.331,0600.621658.26	(1,100)1.000(1,100)1.000753.791284.334.3291,0600.621658.260.784

Cost of debt = 5% + 55.72/55.72 + 157.41 (10% - 5%) = 6.3%

Market Values: Equity=  $7.6 \times 5 = 38$ Debt =  $1100/1000 \times 15=16.5$ 

WACC = (14.1% x 38/54.5) + (6.3% x 16.5/54.5) = 11.74%

b)

Stock market efficiency usually refers to the way in which the prices of traded financial securities reflect relevant information. Weak-form efficient is where the share prices fully and fairly reflect past information. Investors cannot generate abnormal returns by analysing past information, such as share price movements in previous time periods.

Semi-strong form of market efficiency is where share prices fully and fairly reflect public information as well as past information. Investors cannot generate abnormal returns by analysing either public information, such as published company reports, or past information.

## c) Usefulness of consolidated financial statements

The main reason for preparing consolidated accounts is that groups operate as a single economic unit, and it is not possible to understand the affairs of the parent company without taking into account the financial position and performance of all the companies that it controls. The directors of the parent company should be held fully accountable for all the money they have invested on their shareholders behalf, whether that has been done directly by the parent or via a subsidiary.

There are also practical reasons why parent company accounts cannot show the full picture. The parent company's own financial statements only show the original cost of the investment and the dividends received from the subsidiary. As explained below, this hides the true value and nature of the investment in the subsidiary, and, without consolidation, could be used to manipulate the reported results of the parent.

- (i) The cost of the investment will include a premium for goodwill, but this is only quantified and reported if consolidated accounts are prepared.
- (ii) A controlling interest in a subsidiary can be achieved with a 51% interest. The full value of the assets controlled by the group is only shown through consolidation when the non-controlling interest is taken into account.

- (iii) Without consolidation, the assets and liabilities of the subsidiary are disguised.
  - A subsidiary could be very highly geared, making its liquidity and profitability volatile.
  - A subsidiary's assets might consist of intangible assets, or other assets with highly subjective values.
- (iv) The parent company controls the dividend policy of the subsidiary, enabling it to smooth out profit fluctuations with a steady dividend. Consolidation reveals the underlying profits of the group.
- (v) Over time the net assets of the subsidiary should increase, but the cost of the investment will stay fixed and will soon bear no relation to the true value of the subsidiary.

## **END OF SOLUTIONS**



## TAXATION PROGRAMME EXAMINATIONS

## DIPLOMA LEVEL

## D3: BUSINESS TAXATION

## WEDNESDAY 15 JUNE 2022

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 consists of **FOUR (4)** questions of twenty five (25) marks each. You <u>MUST</u> attempt all the **FOUR (4)** 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. You must write <u>ALL</u> your answers 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 on pages 2,3, 4,5 and 6 of this paper.

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

## Taxation table for paper D3– Business Taxation (2022 Examinations)

Inc	come Tax	-
Income band	Taxable amount	Rate
K1 to K54,000	first K54,000	0%
K54,001 to K57,600	next K3,600	25%
K57,601 to K82,800	next K25,200	30%
Over K82,800		37.5%
Income from farming for individuals		
K1 to K54,000	first K54,000	0%
Over K54,000		10%
Company income tax rates		
On income from manufacturing and other		30%
On income from farming		10%
On income from mineral processing		30%
On income from mining operations		30%
Income from farming for individuals		
K1 to K54,000	first K54,000	0%
Over K54,000		10%
Company Income Tax rates		
On income from manufacturing and other		30%
On income from farming		10%
On income of Banks and other Financial		30%
Institutions		
On income from mineral processing		30%
On income from mining operations		30%
On income from manufacture of products		15%
made out of copper cathodes		
Mine	ral Royalty	
Mineral Royalty on Copper		
Range of Norm Price		Mineral Royalty Rate
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 on other minerals		
Type of mineral		Mineral Royalty Rate
Base Metals (Other than Copper, Cobalt an		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

## **Capital Allowances**

	hinery and commercial vehicles:	<b>9-0</b> /		
Wear and Tear Allowance –	Standard wear and tear allowance	25%		
	Used in manufacturing and leasing	50%		
	Used in farming and agro-processing	100%		
	Used in mining operations	20%		
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%		
		100,0		
	Presumptive Taxes			
Turnover Tax		4%		
Rental Income Tax				
Annual Rental Income				
K800,000 or below		4%		
Above K800,000		12.5%		
		12.570		
Presumptive tax for transporters				
Seating capacity	Tax per annum	Tax per quarter		
contraction of the second s	K	К		
Less than 12 passengers and ta		270		
From 12 to 17 passengers	2,160	540		
From 18 to 21 passengers	4,320	1,080		
From 22 to 35 passengers	6,480	1,620		
From 36 to 49 passengers	8,640	2,160		
From 50 to 63 passengers	10,800	2,700		
From 64 passengers and over	12,960	3,240		
rishi or passengers and over	12,000	3,210		

## Property transfer tax

Rate of tax on realised value of land, land and buildings and shares5%

Rate on realised value of intellectual property	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 mineral processing licence or an interest	
in the mineral processing licence;	10%
Value Added Tax	
Desistration threshold	1/000 000

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

## Customs and Excise duties on used motor vehicles

	2 years old but less than 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver	Customs duty K	Excise duty K	Customs duty K	Excise 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

Motor cars and other motor vehicles	2 old years but less than 5 years		Aged 5 years and over	
principally designed for the transport of persons including station wagons and racing cars	Customs duty	Excise duty	Customs duty	Excise duty
	К	К	К	К
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 for exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc but not	22,561	29,329	18,049	23,463

exceeding 2500 cc SUVs				
Cylinder capacity not exceeding 2500 cc Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	21,057 24,065	•	9,024 13,357	•
Cylinder capacity exceeding 3000 cc	28,577 <b>2 years</b> less than	old but	18,049 Aged 5 ye ove	ears and
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
-	К	К	К	К
<b>Single cab</b> GVW exceeding 1.0 tonne but not exceeding	21,926	9,501	8,770	3,801
1.5 tonnes 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
<b>Double cabs</b> GVW exceeding 3 tonnes but not exceeding 5 tonnes	30,697	13,302	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, <b>with spark</b>	33,766	14,632	26,531	11,497
ignition internal combustion piston engine				
Panel Vans	10 050	F 70C	7 (20	2.001
GVW not exceeding 1.0 tonne GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	13,353 15,348	5,786 6,651	7,630 8,770	3,061 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	13,907	10,662	6,413	4,916
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	15,453	11,847	7,726	5,923
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	9,272	7,108
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes GVW exceeding 20 tonnes, with spark ignition internal combustion piston engine	51,898 37,086	0 28,432	19,462 13,907	0 10,662
Surtax On all motor vehicles aged more than five (5) ye	ars from yea	r of manufa	cture	К2,000

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

## **Attempt ALL FOUR (4) questions.**

## **QUESTION ONE**

BTA Bank Ltd is a Zambian resident company which was incorporated four (4) years ago. BTA Bank Ltd is a wholly owned subsidiary of AT International Bank Plc. The following is the summarized statement of profit or loss of BTA Bank Ltd for the year ended 31 December 2022.

		K′000
Interest income	(Note1)	123,750
Interest expense	(Note 2)	<u>(64,350)</u>
Net interest income		59,400
Provision for loan losses	(Note 3)	<u>(5,700)</u>
Net interest income after provision for loan losses		53,700
Non-interest income	(Note 4)	10,300
Non-interest expense	(Note 5)	<u>(25,680)</u>
Income before income taxes		38,320
Income tax expense	(Note 6)	<u>(11,496)</u>
Income after tax		<u>26,824</u>
The following information is available:		

Note 1: Interest income	K′000
Interest from loans & overdrafts	89,940
Interest from various Securities	<u>33,810</u>
	<u>123,750</u>

Withholding tax deducted from interest income at source during the tax year 2022 amounted to K18,564,000

<b>Note 2: Interest expense</b> Interest on deposits Interest paid to other financial institutions Interest on late payment on tax	K′000 33,600 21,870 <u>8,880</u> <u>64,350</u>
Note 3: Provision for loan losses	K′000
Loan losses written off	6,000
Increase in general provision for loan losses	4,950
Loans previously written off now recovered	( <u>5,250)</u>
	5,700
Note 4: Non-Interest income	
	<u>K′000</u>
Fees from foreign exchange transactions	6,100
Royalties received (net)	1,785
Rental income received (net)	1,755
Dividend income (net)	660
	10,300
Note 5: Non- interest expenses	
·····	K′000

Salaries and wages	15,500
Donation to an amateur football club	2,220
Donation to a political party	2,100
Depreciation	4,500
Other revenue allowable expenses	<u>1,360</u>
	<u>25,680</u>

Salaries and wages include the annual salary for the Managing Director of K880,000, who is accommodated in a company owned house for which he pays no rent.

## Note 6: Income tax expense

The figure for income tax expense in the statement of profit and loss represents the provisional income tax paid by the company for the tax year 2022.

## Note 7: Implements, plant and Machinery

At 1 January 2022, all assets qualifying for capital allowances had income tax values of nil.

The company bought the following assets during the tax year 2022.

	K′000
ATM machines	5,000
Custom built cash-in-transit Van	1,200
Two (2) Double Cab Ford Rangers vans (3500cc) costing K375,000 each	750
Furniture	300

The Ford Rangers are used by the Finance Director and Marketing Director on a personal to holder basis. It has been agreed with the Commissioner General that the private use of each vehicle by each Director is 45%.

## **Required:**

- (a) Calculate the income tax payable by BTA Bank Ltd for the tax year 2022. (17 Marks)
- (b) Poko Poko Ltd is a commercial farming company specializing in animal husbandry and crop farming. It prepares its accounts to 31 December each year. The statement of profit or loss for the year ended 31 December 2022, showed a net profit of K165,000 from a turnover of more than K1,600,000. The profit figure was arrived at after charging depreciation of K25,200. The capital allowances on farm implements, plant and machinery for the tax year 2022 were K65,400.

During the tax year 2022, the company received royalties amounting to K21,000 (net)

## **Required:**

Calculate the income tax payable by Poko Poko Ltd for the tax year 2022.

(5 Marks)

(c) Explain how the profits of a Zambian resident company carrying on insurance business other than Life insurance are ascertained. (3 Marks)

[Total: 25 Marks]

## **OUESTION TWO**

EFG Plc is a VAT registered Zambian resident company engaged in manufacturing. The company is listed on the Lusaka Securities Exchange and 30% of its issued equity shares are held by indigenous Zambians. EFG Plc holds 100% of the issued equity shares of BDE Plc and 80% of the issued equity shares of FGG Plc. EFG plc and BDE plc are both Zambian resident companies engaged in manufacturing.

In March 2022, EFG Plc imported a brand-new Toyota Hilux Double Cab van with a cylinder capacity of 2,700 cc from a motor car dealer in Japan. The cost of the Toyota Hilux was US\$40,000 (Free on Board). The company paid for insurance and freight charges amounting to US\$2,000 and US\$1,800 respectively in transit to the port of Dar-es-salaam. Incidental cost incurred to transport the motor vehicle up to the point of entry into Zambia amounted to US\$1,000. The company paid motor vehicle registration fees amounting to K3,900 in Zambia. The motor vehicle was paid for by the company in Zambian Kwacha (ZMW) at an exchange rate of K16.95 per US\$1. The Bank of Zambia exchange rate at the same date was K16.85 per US\$1 which the Commissioner General approved.

In November 2022, EFG Plc engaged a foreign supplier to provide consultancy and system installation services. The company paid K200,000 (exclusive of VAT) to a foreign supplier for consultancy and installation services. The foreign supplier has not appointed a tax agent in Zambia.

## **Future Plans**

The Directors of EFG Plc are considering disposing off BDE plc in the near future. EFG Plc will then use the disposal proceeds to acquire a new subsidiary known as XYZ Ltd. XYZ Ltd is engaged in manufacturing and is resident in Zambia.

EFG Plc further intends to transfer a building it currently owns which is in excess to its current requirements to XZY immediately after its acquisition. The open market value of the building is estimated to be K3,200,000 on the date of its transfer. The new subsidiary will be required to pay EFG Plc K1,700,000 for the building.

The Directors of EFG Plc would like to know the taxation implications of the above matters.

## **Required:**

- (a) Calculate the total import taxes paid by EFG Plc on the importation of the Toyota Hilux. (7 Marks)
- (b) Explain the VAT implications for EFG plc of the importation of consultancy and installation services from the foreign suppler. (5 Marks)
- (c) Explain for the Directors of EFG Plc of the taxation implications that will arise from the:
  - (i) Sale of BDE plc, the subsidiary. (6 Marks)
  - (ii) Purchase of the XYZ Ltd, the new subsidiary (3 Marks)
- (d) Explain the PTT implication that will arise from the transfer of land to XYZ Ltd, the newly acquired subsidiary. (4 Marks)

## [Total: 25 Marks]

## **QUESTON THREE**

Chifwesa has traded successfully as a shoe designer and manufacturer since 1 January 2017. He is registered for Value Added Tax (VAT) and all his sales are taxable either at the standard or zero rate. As his professional advisor, you have been provided with the following information:

Statement of profit or loss account for the year ended 31 December 2022:

		К
Sales	(Note 1)	1,043,700
Cost of sales	(Note 2)	<u>(680,600)</u>
Gross profit		363,100
Other income	(Note 3)	64,200
Operating expenses	(Note 4)	<u>(272,000)</u>
Profit before tax		155,300
Income tax	(Note 5)	<u>(31,920)</u>
Profit for the year		<u>123,380</u>

#### The following information is available:

- (1) 50% of the sales are standard rated sales, 30% are zero rated and 20% are exempt sales.
- (2) Purchases for the year represents 60% of cost of sales. Also included in cost of sales is depreciation for the year of K272,240. Included in purchases are standard rated purchases of K170,300 and zero rated purchases of K100,000 and the remainder of the purchases were all exempt purchases.
- (3) Other income includes bank interest received of K38,700 (net) and management and consultancy fees of K25,500 (net).
- (4) The operating expenses consist of the following:

	К
Entertaining suppliers	24,800
Motor vehicle repairs	45,000
Bad debts written off	84,000
Loans to employees written off	65,200
General overheads	53,000

(5) The income tax expense shown in the profit or loss account represents provisional income tax paid during the year 2022.

#### **Other information**

- (1) The bad debts shown within operating expenses above were written off on 31 March 2022. The figure consists of two invoices of K42,000 each in respect of which payment was due on 1 August 2020 and on 31 December 2020.
- (2) The business owns a motor van which was acquired in 2020 at a cost of K135,000. The income tax value at 1 January 2022 was K67,500. He also owns a Toyota Mark II with an engine capacity of 2,200 cc which is uses partly for business purposes. It was bought on 10 June 2021 at a cost of K140,500. The private use of the personal to holder car is 25%.

(3) The income tax expense shown in the profit or loss account represents provisional income tax during the year 2022.

## Unless stated otherwise, all of the above figures are exclusive of VAT.

## **Required:**

- (a) Explain four (4) conditions which must be met for a trader to claim bad debt relief. (4 Marks)
- (b) Calculate the VAT payable by Chifwesa for the tax year ended 31 December 2022. (7 Marks)
- (c) Calculate the taxable business profit and the income tax payable by Chifwesa for the tax year 2022 (14 Marks)

## [Total: 25 Marks]

## **QUESTION FOUR**

Chipani Mining Plc is engaged in the extraction of copper and other minerals in the North Western Province of Zambia. The statement of profit or loss for the year ended 31 December 2022 is provided below:

		К
Revenue	(Note 1)	73,016,640
Cost of sales	(Note 2)	<u>(24,801,000)</u>
Gross profit		48,215,640
Operating expenses	(Note 3)	<u>(5,800,800)</u>
Profit from operations		42,414,840
Other income	(Note 4)	<u>1,000,000</u>
Profit before tax		43,414,840
Income tax expense	(Note 5)	<u>(3,451,180)</u>
Profit for the year		<u>39,963,660</u>

The following additional information is available:

#### Note 1: Revenue

The revenue is the norm value of copper for mineral royalty purposes. The average copper price in the tax year 2022 was Us\$9,450 per metric tonne according to the London Metal Exchange (LME). The mineral royal tax paid during the tax year has not been accounted for in the statement of profit or loss as shown above.

#### Note 2: Cost of Sales

This includes depreciation charges on old smelter equipment amounting to K3,240,900 and amortization charges for development expenditure amounting to K2, 261,600.

Note 3: Operating expenses	К
Construction of mine road	1,300,000
Construction of Community School	2,280,000
Entertaining Customers	342,600
Repairs	1,420,800

Drilling and environmental expenses	<u>457,400</u> <u>5,800,800</u>
<b>Note 4: Other Income</b> Profit on sale of drilling equipment Royalties (gross)	K 280,000 <u>720,000</u> <u>1,000,000</u>

## Note 5: Income Tax expense

The income tax expense represents the provisional income tax paid by the company during the tax year 2022.

## Note 6: Implements, plant and machinery

On January 2022, Chipani Mining Plc held the following implements, plant and machinery qualifying for capital allowances:

	Income tax value	Original cost
	К	К
Drilling equipment	250,000	1,250,000
Motor Vans	500,000	1,000,000

During the year ended 31<sup>st</sup> December 2022, the company had the following transactions in capital assets.

	Cost(Proceeds)
	К
Purchase of mining equipment	4,800,000
Construction of administration offices	15,600,000
Purchas of Toyota Prado car (3100cc)	700,000
Purchase of a Range Rover car (3200cc)	850,000
Sale of drilling Equipment (Note 4)	(580,000)

The Range Rover and Toyota Prado are used by the Director of Finance and Director of Operations on a personal to holder basis. It has been agreed with the commissioner General that the private use by each Director of each vehicle is 45%.

#### **Required:**

(a) Calculate the tax adjusted mining profit for Chipani Mining Plc for the tax year 2022. (15 marks)

(b) Calculate the total income tax payable by the company for the tax year 2022. (5 marks)

(c) Describe the Liquidation process of a company.

(5 Marks)

[Total: 25 marks]

#### **END OF PAPER**

## **D3 SUGGESTED SOLUTIONS**

## SOLUTION ONE

(a) BTA Bank Ltd			
Calculation of the Income tax payable by for the tax year	2022.		
	<u>K′000</u>		<u>K′000</u>
Income before taxes			38,320
Add:	0.000		
Interest on late payment of tax Increase in general loan provision losses	8,880 4,950		
Donation to a Political Party	2,100		
Depreciation	4,500		
MD's free accommodation (K880,000 x 30%)	264		
Personal-to holder cars (K40,000 x 2)	80		
			<u>20,774</u>
			59,094
Less:			
Royalties	1,785		
Rental income	1,755		
Profit on sale of equipment	660 1,775		
Capital allowances (W1)	1,775		<u>(5,975)</u>
Adjusted business profit			<u>(3,373)</u> 53,119
Add:			00/110
Royalties (K1,785,000 x 100/85)			2,100
Taxable income			55,219
Income tax@ 35% (K55,219 x 30%)			16,566
Provisional income tax paid			(11,496)
WHT-Royalties (K2,100,000x 15%)			<u>(315)</u>
Income tax payable			4,755
Workings		K′000	
Capital Allowances:			
ATM Machines (K5,000,000 x 25%		1,250	
Custom –built-cash transit van (K1,200,000 x 25%)		300	
Ford Rangers (K750,000 x 20%x )		150	
Furniture (K300,000x 25%)		75	_
		<u>1,775</u>	

(b) Calculation of income tax payable by Poko Poko ltd for the tax year 2022		
K	K	
Net profit	165,000	
Add:		
Add Depreciation	<u>25,200</u>	
	190,200	
Less:		
Capital allowances	<u>(65,400)</u>	
Farming profits	124,800	
Royalties K21,000 x 100/85	<u>24,706</u>	
Taxable income	<u>149,506</u>	
Income tax:		
K124,800 x 10%	12,480	
K24,706 x 30%	<u>7,412</u>	
	19,892	
Less WHT on Royalties (K24,706 x 15%)	<u>(3,706)</u>	
Income tax payable	<u>16,186</u>	

(c) How the profits of carrying on insurance business, other than life insurance business by a resident company are ascertained by:

- Taking the gross premiums, interest and other income less premiums refunded or paid on reinsurance
- Adding a reserve for unexpired risks at such reasonable percentage as is adopted by the company at the beginning of the year's business and
- Deducting a reserve for unexpired risks at such reasonable percentage as is adopted by the company at the end of the year's business.
- Deducting the actual losses (less the amounts received under reinsurance) and other expenses, including deductions that are allowable as a deduction in calculating any business profits.

## SOLUTION TWO

(a) Import taxes

Cost Insurance Freight charges Incidental costs VDP in US\$ Exchange rate VDP in ZMW	\$ 40,000 2,000 1,800 <u>1,000</u> 44,800 <u>x K16.85</u> <u>754,880</u>	
	Value of the	Import taxes
	vehicle	
	K	K
VDP for customs duty	754,880	
Customs duty @30%	<u>226,464</u>	226,464
VDP for excise duty	981,344	
Excise duty @30%	<u>294,403</u>	294,403
-	1,275,747	
Import VAT @16%	204,120	<u>204,120</u>
Total value of the vehicle	1,479,867	
Total import taxes		<u>724,987</u>

## (b) Value Added Tax implications

The company will be charged reverse charge (VAT) on the importation of consultancy and installation services.

Reverse VAT is the transfer of liability to account for and pay VAT from the person making the supply to the person receiving the supply. Reverse VAT is charged on imported services where the non-resident supplier has not appointed a tax agent in Zambia.

EFG Plc will be required to account for and pay VAT on the importation of consultancy and installation services because the foreign supplier has not appointed a tax agent.

The amount of VAT to be paid will be:  $K200,000 \times 16\% = K32,000$ .

Reverse VAT paid is not recoverable as input VAT. Therefore, EFG Plc will not be able to claim K32,000 as input VAT.

## (c) Taxation implications

(i) Sale of subsidiary

The taxation implications depend on whether the subsidiary is disposed off as a going-concern or not.

- (1) If the subsidiary is sold not as a going-concern, then this will mean that individual assets of the company will be disposed and not the whole subsidiary. Taxation implications in this case would be:
  - 1. The subsidiary will cease to trade and in the tax year in which it is sold, cessation rules will be used to compute the income tax liability.
  - 2. VAT will be payable on the sale of all taxable assets for VAT purposes.

- 3. Property transfer tax will be chargeable on the transfer of qualifying assets for property transfer tax purposes.
- (2) If the subsidiary is sold as a going-concern, the taxation implications will be as follows:
  - 1. The subsidiary (BDE Plc) will be deemed to have ceased to trade in the year of disposal. Cessation rules will be used when making the company income tax assessments in the year of disposal.
  - 2. No property transfer tax will be chargeable on assets as transfer of business as a whole is outside the scope of PTT.
  - 3. No VAT will be chargeable on the taxable assets as disposal of business as a whole is outside the scope of VAT.
- (ii) Purchase of a new subsidiary
  - The following are the taxation implications of acquiring a new subsidiary:
  - 1. When a subsidiary is acquired, it joins the group and it is assessed separately to company income tax and will be required to complete its own income tax returns in each relevant tax year.
  - 2. In the tax year in which the subsidiary is acquired it will be required to make its own company income tax assessments using commencement rules.
  - 3. All other members of the group will continue to be individually liable for all tax obligations and will continue to be taxed separately.
- (d) Property transfer tax implications arising from the transfer of land to the newly acquired subsidiary are:

Where property is transferred from one company to another company within the same group, the realized value of such transfer may be nil for as long as the Commissioner General is satisfied that such a transfer was made for the purposes of internal reorganization of the group.

This means that there is no property transfer tax payable on transfer of property between companies within the same group.

However, this does not apply to transfers made to companies that have been members of the group for less than three (3) years.

EFG Plc will be required to pay property transfer tax on the transfer of land to the newly acquired subsidiary because three (3) years would have not elapsed from the time the subsidiary will be acquired.

Therefore, the realised value will be determined using the normal rules and the amount of property transfer tax to be paid by EFG Plc will be:  $K3,200,000 \times 5\% = K160,000$ .

## SOLUTION THREE

- (a) Bad debt relief can be claimed upon the satisfaction of the following conditions:
  - (1) A supply of goods and services has been made for consideration in money or by barter.
  - (2) Output VAT has been accounted for and paid by the supplier.
  - (3) The whole or part of the debt has been written off as bad ithe records of the supplier.

(4) At least eighteen (18) months have elapsed since the time when the payment was due.

## (b) CHIFWESA

(c)

# COMPUTATION OF VAT PAYABLE FOR THE YEAR ENDED 31 DECEMBER 2022

	К	К
OUTPUT VAT		02.406
Standard rated sales (1,043,700 x 50% x 16%		83,496
Zero-rated sales (1,043,700 x 30% x 0%)		<u>     0</u> 83,496
INPUT VAT		03,490
Standard rated purchases (170,300 x 16%)	27,248	
Zero rated purchases (100,000 x 0%)	0	
Motor vehicle repairs (45,000 x 16%)	7,200	
Bad debts $(42,000 \times 16\%)$	6,720	
General overheads (53,000 x 16% x 80%)	6,784	
	<u></u>	
		<u>(47,952)</u>
VAT payable		35,544
CHIFWESA		
COMPUTATION OF TAXABLE BUSINESS PI	ROFIT FOR TH	E TAX YEAR 2020
COMPUTATION OF TAXABLE BUSINESS PI	R <b>OFIT FOR TH</b> I K	E TAX YEAR 2020 K
Net profit before tax		
		К
Net profit before tax Add: Depreciation	K 272,240	К
Net profit before tax Add: Depreciation Entertaining suppliers	K 272,240 24,800	К
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off	K 272,240 24,800 65,200	К
Net profit before tax Add: Depreciation Entertaining suppliers	K 272,240 24,800	K 155,300
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off	K 272,240 24,800 65,200	K 155,300 <u>392,240</u>
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off Personal to holder car benefit	K 272,240 24,800 65,200	K 155,300
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off Personal to holder car benefit Less:	K 272,240 24,800 65,200 <u>30,000</u>	K 155,300 <u>392,240</u>
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off Personal to holder car benefit Less: Bank interest	K 272,240 24,800 65,200 <u>30,000</u> 38,700	K 155,300 <u>392,240</u>
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off Personal to holder car benefit Less: Bank interest Management & consultancy fees	K 272,240 24,800 65,200 <u>30,000</u>	K 155,300 <u>392,240</u>
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off Personal to holder car benefit Less: Bank interest Management & consultancy fees Capital allowances;	K 272,240 24,800 65,200 <u>30,000</u> 38,700 25,500	K 155,300 <u>392,240</u>
Net profit before tax Add: Depreciation Entertaining suppliers Loans to employees written off Personal to holder car benefit Less: Bank interest Management & consultancy fees	K 272,240 24,800 65,200 <u>30,000</u> 38,700	K 155,300 <u>392,240</u>

Tax adjusted business profit	<u>,075</u> <u>(119,025)</u> 428,515
Add: Management & consult. fees (25,500 x 100/85) Less tax free income	<u>_30,000</u> 458,515 <u>(54,000)</u>
Taxable income Income tax:	<u>404,515</u>
25% x 3,600	900
30% x 25,200	7,560
37.5% x 375,715	<u>140,893</u>
Tax liability	149,353
Less: Provisional income tax	(31920)
	(01020)
WHT – Management & consultancy fees (30,000 x 15% Income tax payable	%) (4,500) <u>112,933</u>

## SOLUTION FOUR

(a) Chipani Mining Plc Adjusted taxable mining	profits for the tax yea K	ar 2022. K
Profit before tax Add:	K	43,414,840
Depreciation Amortisation Construction of mining Road Construction of community school Entertaining Customers	3,240,900 2,261,600 1,300,000 2,280,000 342,600	
Personal to Holder cars: Range Rover Toyota Prado	40,000 <u>40,000</u>	
		<u>9,505,100</u> 52,919,940
Less: Profit on disposal Royalties Capital allowances (W1) Mineral royalty tax	280,000 720,000 2,218,000 7,301,664	
Adjusted mining profit	, ,	<u>(10,519,664)</u> <u>42,400,276</u>
Workings Capital allowances Drilling plant (K250,000- K580,000) Balancing charge Mining Equipment (K4,800,000 x 20%) Construction of Administration offices (K15,600,000 x 2%) Purchase Toyota Prado (K700,000 x 20%) Purchase of Range Rover (K850,000 x 20%) Construction of mine road (K1,300,000 x 20%) Construction of Community School (K2,280,000 x 20%) Motor Vans(K100,000 x 25%)		K (330,000) 960,000 312,000 140,000 170,000 260,000 456,000 20,000 2,218,000
(b) CHIPANI MINING PIC COMPANY INCOME TAX COMPUTATION FC		
Adjusted mining profit Investment income Royalties Total taxable income	К	K 42,400,276 <u>720,000</u> <u>43,370,276</u>
Income tax Mining profits (K42,400,276 x 30%) Non mining income (K720,000 x 30%) Income tax liability		12,720,083 <u>216,000</u> 12,936,083

Less provisional tax paid WHT- Royalties (K720,000 x 15%) Total tax payable (3,451,180) (108,000) 9,376,903

(c) The liquidation process of a company

- The liquidator should be appointed, and the trading should cease.
- The assets of the company are sold, receivables collected and liabilities paid.
- The corporation tax due on any profits and gains made on disposal of assets must be paid.
- The liquidator pays out the balance of the funds to the shareholders, and the shares are cancelled.
- The shareholders pay any tax due on the amounts received.

## **END OF SOLUTIONS**



## DIPLOMA LEVEL

## D4: PERSONAL TAXATION

## TUESDAY 14 JUNE 2022

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

## **INSTRUCTIONS TO CANDIDATES**

- 1. You have fifteen (15) minutes reading. 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 question paper consists of **FOUR (4)** questions of twenty Five (25) marks each. You <u>MUST</u> attempt all the **FOUR (4)** 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. A Taxation table is provided on pages 2 and 3

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

## **TAXATION TABLE**

## **Income Tax**

## Standard personal income tax rates

<b>Income band</b> K1 to K54,000 K54,001 to K57,600 K57,601 to K82,800 Over K82,800	Taxable amount first K54,000 next K3,600 next K25,200	Rate 0% 25% 30% 37.5%
<b>Income from farming for individuals</b> K1 to K54,000 Over K54,000	first K54,000	0% 10%
<b>Company income tax rates</b> On income from manufacturing and other On income from farming On income from mineral processing On income from mining operations		30% 10% 30% 30%
<b>Income from farming for individuals</b> K1 to K54,000 Over K54,000	first K54,000	0% 10%
Company Income Tax rates		
On income from manufacturing and other On income from farming On income of Banks and other Financial Institutions On income from mineral processing On income from mining operations On income from manufacture of products made out of copper cathodes		30% 10% 30% 30% 30% 15%

## **Mineral Royalty**

## Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
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 on other minerals**

<b>Type of mineral</b> Base Metals (Other than Coppe Cobalt and Vanadium Energy and Industrial Minerals Gemstones Precious Metals	r, Cobalt and Vanadium)	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 mac Wear and Tear Allowance –	hinery and commercial vehicles: Standard wear and tear allowance Used in manufacturing and leasing Used in farming and agro-processing Used in mining operations	25% 50% g 100% 20%
Non- commercial vehicles Wear and Tear Allowance		20%
<b>Industrial Buildings:</b> Wear and Tear Allowance Initial Allowance Investment Allowance		5% 10% 10%
Low Cost Housing Wear and Tear Allowance Initial Allowance	(Cost up to K20,000)	10% 10%
<b>Commercial Buildings</b> Wear and Tear Allowance		2%
<b>Farming Allowances</b> Development Allowance Farm Works Allowance Farm Improvement Allowance	Presumptive Taxes	10% 100% 100%
Turnover Tax	•	4%
Rental Income Tax		
Annual Rental Income K800,000 or below Above K800,000		4% 12.5%
Presumptive tax for transporters		
Seating capacity	Tax per annum	Tax per quarter

	К	К
Less than 12 passengers and taxis	1,080	270
From 12 to 17 passengers	2,160	540
From 18 to 21 passengers	4,320	1,080
From 22 to 35 passengers	6,480	1,620
From 36 to 49 passengers	8,640	2,160
From 50 to 63 passengers	10,800	2,700
From 64 passengers and over	12,960	3,240

## Property transfer tax

Rate of tax on realised value of land, land and buildings and shares	5%
Rate on realised value of intellectual property	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 mineral processing licence or an interest	
in the mineral processing licence;	10%

## Attempt all FOUR (4) questions.

## **QUESTION ONE**

Kasonde Mutale has been employed at DXL Ltd. which is engaged in the installation and sale of software, computers and other computer accessories on a three-year renewable fixed term contract which commenced on 1 January 2020 at an annual salary of K264,000. She was entitled to an annual housing allowance of 20% of her annual basic salary and an annual Medical allowance of 5% of her annual basic salary. On 1 March 2022, Kasonde was awarded a salary increment of 10% of her basic salary which took effect on that date. The company additionally paid her annual golf club subscriptions of K2,000 in the tax year 2022.

During the tax year 2022, the company provided to Kasonde with the following additional benefits:

- (1) Free airtime credit worth K500 per month for the sole use in making business calls.
- (2) A company fuel card, which she used to purchase fuel from specific filling stations costing K1,500 per month. She used the fuel on her own personal Isuzu double cab motor van when travelling wholly and exclusively in the performance of the duties of her employment. She acquired the vehicle two years ago at a cost of K1,250,000. Her employment use of the car was 40%. She incurred other motor car running expenses in relation to the vehicle amounting to K5,000 per month. The company reimburses her the full amount of the expenses at the end of each month.
- (3) Free staff refreshments costing K800, per month whilst performing the duties of her employment.
- (4) The company sold a laptop to Kasonde at a price of K5,000. The open market commercial selling price of the laptop to the customers of the company is K12,000.
- (5) In June 2022, she was paid a sales bonus of 2% of her basic monthly salary.

PAYE amounting to K110,000 was deducted from her emoluments during the year.

Kasonde received the following additional income from Zambian and foreign sources in the tax year 2022.

#### Investment income from Zambian Sources

Dividends of K18,000 (net) from shares she held in KXP plc a Zambian resident company which is listed on the Lusaka Securities Exchange (LuSE), treasury bill discount of K13,600 (net) and Royalties of K68,000 (net).

#### Investment income from foreign Sources

Kasonde, holds shares in a company that is resident in a foreign country known as the Republic of Chambia and also holds a fixed deposit account with a bank that is resident in the Republic of Chambia. During the tax year 2022, She received the following income from these investments:

(1) Dividends of K74,400 from her investments in shares of companies in the foreign country. This amount was net of withholding tax at the rate of 38% of the gross amount deducted in the foreign country.

(2) Bank interest from a bank that is resident in the foreign country of K13,500. This amount is net of withholding tax at the rate of 25% of the gross amount which was deducted in the foreign country.

There is no double taxation agreement between Zambia and the Republic of Chambia. Any double taxation relief available must be given by means of unilateral credit relief in each case.

## **Required:**

Compute the income tax payable by Kasonde for the tax year 2022. (25 marks)

[Total: 25 Marks]

## **OUESTION TWO**

For the purposes of this question, you should assume that today's date is 12 December 2021 and that the earnings ceiling for the purposes of NAPSA contributions is K293,232.

Peter wishes to commence in business running a chain of stores on 1 January 2022. He intends to engage his sister, Grace, in the business but he is unsure whether to engage her as a partner and run the business as a partnership, or incorporate the business and run it as a limited company.

Regardless of whether the business is ran as a partnership or limited company, two (2) Toyota Prado Cars will be acquired by the business at a cost of K200,000 each on 1 January 2022. The cylinder capacity of each car will be 2,900 cc and the motor cars will be used by Peter and Grace for both business and private purposes. It is estimated that the business use by each individual is 60%. The business will also acquire office equipment at a cost of K80,000 and a Mitsubishi Light Truck at a cost of K220,000 on 23 February 2022. The annual turnover of the business, regardless of how it is run, is expected to be K1,800,000.

## Partnership

If the business is run as a partnership, Peter will take on Grace as a partner and each of them will draw annual salaries amounting to K350,000 and K300,000 respectively. National Pension Scheme Authority (NAPSA) Contributions will not be payable under this option. The balance of profits will be shared between Peter and Grace in the ratio 3:2 respectively.

The net profit as per accounts for the year ended 31 December 2022 is expected to be K1,000,000. This profit figure will be before taking into account any expenses relating to each individual. NAPSA contributions will not be payable under this option. All the expenses deducted in arriving at the net profit figure of K1,000,000 will be allowable for tax purposes.

## Limited company

If the business is run as a limited company, it will trade under the name 'Pegra Limited'. Peter and Grace will be the only shareholders of the company and full-time working Directors in the company. Peter and Grace will draw annual Directors' emoluments amounting to K350,000 and K300,000 respectively. NAPSA contributions will be payable where applicable by both directors and Pegra Limited at a rate 5% of the gross employment earnings of each director.

The net profit as per accounts for the year ended 31 December 2022 is expected to be K1,000,000. This net profit figure is before deducting any expenses relating to each individual and NAPSA contributions where applicable. All the expenses deducted in arriving at a profit figure of K1,000,000 are allowable for tax purposes.

#### **Required:**

- (a) Calculate the amount of income tax payable by Peter and Grace for the tax year 2022 if the business is run as a partnership. (9 marks)
- (b) Assuming that the business is run as a limited company:
  - (i) Calculate the amount of income tax and NAPSA contributions payable by Peter and Grace for the tax year 2022. (5 marks)
  - (ii) Calculate the amount of income tax and NAPSA contributions payable by Pegra Limited for the tax year 2022. (6 marks)
- (c) Advise Peter whether he should ran the business as a partnership or incorporate the business and run it as a limited company. Your answer should include a computation of net income under each option after deducting all statutory deductions and other relevant expenses.

(5 marks) [Total: 25 Marks]

#### **QUESTION THREE**

Chikondi, who was recently retrenched by his employers, commenced in business in May 2022, running a transportation business using his retrenchment package.

On 1 May 2022, he bought the following vehicles:

- (1) Three (3), Rosa buses each with a seating capacity twenty- six (26) passengers at a cost of K450,000 each.
- (2) Five (5) Taxis each with a seating capacity of four (4) passengers at a cost of K80,000 each.
- (3) Two (2) Tata buses each with a seating capacity of thirty- two (32) passengers at a cost of K800,000 each.

Chikondi bought all the above vehicles from a local vehicle dealer and employed three (3) Rosa drivers, five (5) taxi drivers and two (2) Tata bus drivers. He paid to each of the drivers a monthly salary of K4,000, K2,500 and K5,000 respectively and contributed 5% of each employee's salary as NAPSA contribution. Each driver also contributed a 5% of the salary as NAPSA contributions. The total revenue (turnover) for the tax year 2022 amounted to K760,000. Other operating costs amounted to K20,500 per month. Chikondi's fleet of vehicles started operating every month from 1 June 2022 to 31 December, 2022 and five (5) days a week and four (4) weeks in each month except on the week- ends when the vehicles were being serviced. During the entire month of August 2022, two (2) of the taxis did not operate 1 September 2022. Chikondi also received rental income of K3,500 per month in the 2022 tax year.

#### **Required:**

- (a) Explain the tax treatment of the expenses Chikondi will incur wholly and exclusive in running the transportation business. (3 marks)
- (b) Compute the amount of tax payable by Chikondi for tax year 2022, in respect of his transportation business. (7 marks)
- (c) Explain five (5) benefits of presumptive taxes. (5 marks)
- (d) Explain the Tax appeals process a tax payer should follow for an objection against an income tax assessment made by the Zambia Revenue Authority (ZRA). (7 marks)
- (e) Explain the tax treatment of rental income.

(3 marks) [Total: 25 Marks]

#### **QUESTION FOUR**

(a) A share option scheme is a scheme under which the employer grants options to employees to buy shares in that employer's company in the future at a price determined now.

#### **Required:**

Explain the tax implications of participating in a share option scheme that is not approved for tax to the:

(i) Employer

(3 marks)

(ii) Employee

- (b) Explain the reasons why it is important to distinguish between employees and selfemployed persons for income tax and NAPSA contributions purposes. (4 marks)
- (c) Discuss any Six (6) tests used by the ZRA to distinguish self-employment from employment. (12 marks)

# [Total: 25 Marks]

#### **END OF PAPER**

# **D4 SUGGESTED SOLUTIONS**

# SOLUTION ONE

(a) KASONDE'S PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAF	2 2022	
	K	К
Zambian Employment Income	ĸ	ĸ
Salary (K264,000 x 2/12) +(K264,000 x 1.10 x 10/12) Housing allowance (K286,000 x 20%) Medical allowance (K286,000 x 5%) Golf club subscriptions Laptop (K12,000 - K5,000) Bonus (K24,200 x 2%) Reimbursement of motoring expenses (K5,000 x 12)		286,000 57,200 14,300 2,000 7,000 484 60,000
Less allowable deductions:		426,984
Capital allowances on motor vehicle (K1,250,000 x 20%) x 40%	100 000	
Motoring expenses	100,000	
(K5,000 x 12) x 40%	24,000	<u>124,000</u>
Zambian Investment income Copyright royalties		302,984
(K68,000 x 100/85)		80,000 382,984
Income from foreign sources:		
Dividends (K74,400 x 100/62) Fixed deposit interest	120,000	
(K13,500x 100/75)	18,000	<u>138,000</u>
Income chargeable to income tax		<u>520,984</u>
<u>Income Tax</u> On first K54,000 x 0% On next K3,600 x 25% On next K25,200 x30% On excess (K438,184 x 37.5%)		0 2,400 7,560 <u>164,319</u>
Zambian Income Tax charge		174,279

PAYE	x already paid		(110,000)	
(K80,0	n copyrights 00 x 15%) ouble taxation Relief on:		(12,000)	
	ends (W3) deposit	39,281 4,500		(W1) (W2)
Final ir	ncome tax payable		<u>(43,983)</u> <u>8,296</u>	
WORKINGS				
(1)	Total assessable income		14	
	Income chargeable to income tax Zambian Treasury bill discount (K13,600x 100/8 Total assessable income	5)	K 520,984 <u>16,000</u> <u>536,984</u>	
(2)	Total amount of Zambian tax charge			
	Zambian Income Tax charge WHT on treasury bill discount (15% x K16,000) Total Zambian tax charge		K 172,779 <u>2,400</u> <u>175,179</u>	
(3)	Double taxation relief on the dividends from fore	eign sour	ces:	
	This will be the lower of:			

(i) The foreign tax paid on the dividends:

K120,000 x 38% = K45,600; and

(ii) The Zambian Tax Charge attributed to the dividends computed as:

$$\left(\frac{\text{K120,000}}{\text{K536,984(W1)}}\right)$$
x K175,779(W2)

= <u>K39,281</u>

DTR will therefore be K39,281 being the lower amount.

- (4) Double taxation relief on the fixed deposit interest from foreign sources will be the lower of:
  - (i) The foreign tax paid on the dividends:

(ii) The Zambian Tax Charge attributed to the dividends computed as:

 $\left(\frac{\text{K18,000}}{\text{K529,984(W1)}}\right)$ x K175779(W2)

= <u>K5,970</u>

#### SOLUTION TWO

(a) COMPUTATION OF FINAL TAX ADJUSTED PARTNERSHIP PROFIT FOR THE TAX YEAR 2022

	DJUJTEDTART	K	
Business profit		1,000,000	
Less:			
Capital allowances:			
Toyota Prado cars			
(K200,000 x 2 x 20% x 60%)	48,000		
Office equipment			
(K80,000 x 25%)	20,000		
Mitsubishi Light truck			
(K220,000 x 25%)	<u>55,000</u>		
		<u>(123,000)</u>	
Adjusted business profit		<u>877,000</u>	
ALLOCATION OF PROFITS			
	Peter	Grace	Total
	K	К	К
Salaries	350,000	300,000	650,000
Balance 3:2	<u>136,200</u>	<u>90,800</u>	<u>227,000</u>
Total	<u>486,200</u>	<u>390,800</u>	<u>877,000</u>
PART			
Income Tax			
First K54,000 @0%	0	0	
Next K3,600 @25%	900	900	
Next K25,200 @30%	7,560	7,560	
Excess			
(K403,400/K308,000x.375	<u>151,275</u>	151,500	
Income tax payable	<u>159,735</u>	<u>123,960</u>	
	100,100	123,300	

(b) Limited company

(i) PETER AND GRACE PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2022

	Peter	Grace
	К	К
Salary	<u>350,000</u>	<u>300,000</u>
Income Tax		
First K54,000 @0%	0	0
Next K3,600 @25%	900	900
Next K25,200 @30%	7,560	7,560
Excess		
(K267,200/K217,200 @37.5%	<u>100,200</u>	<u>81,450</u>

	Income tax payable	<u>108,660</u>	<u>89,910</u>
	Employee's NAPSA (K293,232 x 5%	) 14,662	14,662
(ii)	Pegra Limited Income tax payable for the tax year	2022	V
	Business profit Add:		K 1,000,000
	Personal to holder car benefit (K40,	000 x 2)	<u>80,000</u> 1,080,000
	Less:		, ,
	Directors' emoluments (350,000 + 3	300,000)	(650,000)
	Employer's NAPSA (K293,232 x 2 x	5%)	(29,323)
	Capital allowances:	2)	(00,000)
	Toyota Prado car (K200,000 x 20%	x 2)	(80,000)
	Office equipment (K80,000 x 25%)		(20,000)
	Mitsubishi Light truck (K220,000 x 2	25%)	<u>(55,000)</u>
	Adjusted business profit		<u>245,677</u>
	Company tax @ 30%		<u>73,703</u>
(c) Net i	ncome		Limited
	Pa	artnership	company
		K	K
Busin	ness profit	1,000,000	1,000,000
Less:			, ,
Incor	ne tax payable:		
Peter		(159,735)	(108,660)
Grace		(123,960)	(89,910)
Pegra	a Ltd	-	(73,703)
Empl	oyees' NAPSA	-	(29,324)
Empl	oyer's NAPSA	Ξ	<u>(29,324)</u>
Net i	ncome	<u>716,305</u>	<u>669,079</u>

It will be beneficial for Peter to engage Grace in the business as a partner and run the business as a limited company. This is so because the net income under partnership option is higher by K47,226 (K716,305 – K669,079).

#### SOLUTION THREE

(a) Explanation of the tax treatment of the expenses incurred wholly for business purposes.

- Chikondi will be running a business of Public transportation for the carriage of persons. He will therefore be liable to pay Presumptive tax as a transporter which is levied on daily basis depending on the seating capacity of the vehicle.
- Expenses that Chikondi incurs wholly and exclusively for business will not be deducted in computing the presumptive tax because presumptive is not calculated on the taxable profit, but on a daily fixed charge.
- Capital allowances on the motor vehicles used wholly and exclusively in the transport business will not be claimed.

(b) of the amount of tax payable for tax year 2022

ROSA BUSES 3x5 x 4 x 7 x K17.80	K 7,476	
TAXIS 5x 5 x 4 x 6 x K3		1,800
LUXURY BUSES 2 x 5 x 4 x 7 x K23.70	6,636	
Total tax payable		15,912

(c) Benefits of Presumptive tax system

Simplifies process

The process of dealing with taxes has been simplified. There is no requirement to file returns, no requirement to keep proper business and accounting records and the taxes paid are predictable and therefore resulting in easing the cash flow planning process.

• Cash flow friendly

Since operators find it fairly easy to pay a whole range of fees on a daily basis, such as loading fees. Because the accounts look small and do not seriously disrupt their daily cash flow position, the same principle of small regular payments of tax has been adopted in the presumptive tax approach.

• No need for professional consultancy services

Paying the levies is straight forward as paying loading fees or other fees currently in place. Hence very little intellectual or professional effort required. The driver and/or conductor make arrangements for presumptive tax to be paid without involving the proprietor

• Equity

As the system is made simpler, all transporters are expected to pay their part. As presumptive tax is a levy, there will no longer be need to keep records for tax purposes and as such no audits will be conducted on a transporter's business. The only requirement will be for the transporter to pay his presumptive as stated in the law.

• Allowance for breakdown

The levies are only charged for vehicles that are on the road during the tax accounting period.

(d) Tax appeals process

- The tax payer may make an objection to the notice of assessment, stating the reasons for making the objection.
- He/she should make the objection in writing and should be addressed to the commissioner General
- The Commissioner General may entertain the objection and the matter may be settled immediately, with the tax payer agreeing to pay the final tax determined.
- In the event that the Commissioner General does not entertain tax payer's objection, the tax payer r may make an appeal to the Tax Appeals Tribunal on a point of fact, law or mixed fact and law.
- The Tax Appeals Tribunal would make a decision either in tax payer's favour or in the Commissioner General's favour.
- Either party that is not satisfied with the decision of the Tax Appeals Tribunal may make an appeal to the high court on a point of law or mixed law and fact.
- A final appeal may be made by either party to the Supreme Court on a point of law only

#### (e) Tax treatment of rental income

Rental income received by both individuals, is chargeable to Turnover Tax at the rate of 4% if the rental income is K800,000 per annum or less.

Where the rental income for an individual or a company exceeds K800,000 per annum, then it is subjected to tax at the rate pf 12.5%. annum.

Rental income is accounted for on a monthly basis by the landlord and is payable on the 14<sup>th</sup> day following the end of the month to which it relates

#### **SOLUTION FOUR**

(a) (i) Tax implications for the employer

The tax benefits associated with an approved share option scheme are not available, specifically:

- (1) Costs incurred on setting up and administering such a scheme will not be allowable for taxation purposes
- (2) Any income generated by the company from such a scheme will be taxable
- (3) PTT will arise on the transfer of shares under the scheme provided the company is not listed on the LuSE
- (ii) Tax treatment for the employee

For the employee there are three events that have tax consequences, the grant of the options, the exercise of the options and sale of the shares.

(1) Grant

On the grant of shares to an employee in a share option scheme that is not approved, the exercise price is compared with the open market value of the shares on the date the options are granted.

If options over shares are granted with an exercise price that is less than the market value, an income tax charge can arise on the difference between the market price per share and the exercise price.

#### (2) Exercise

On the exercise of the options, the individual pays the agreed amount in return for the specified number of shares in the company. The exercise price paid is compared with the open market value at that time, and if less, the difference is charged to income tax.

(3) Sale

On the sale of shares acquired by an employee through a share option scheme which is not approved, in an unlisted company, Property Transfer Tax is payable on the realised value of the shares sold, if the company is not listed on the LuSE.

(b) Importance of the distinction between employees and self- employed

The main reason why it is important to distinguish between employees and the self-employed contractor is to enable a smooth classification of how the earnings would be classified and also how any taxes arising would be payable.

Where an individual is held to be an employee, then the earnings will be classified as emoluments for income tax purposes. The emoluments would be subjected to income tax under the Pay As You earn system. Under this system the employer will be responsible for calculating and deducting income tax from the emoluments.

The employee will be required to pay NAPSA contributions and the employer will be required to pay employer's NAPSA contributions.

On the other hand, if an individual is held to be self-employed, then the earnings will be classified as turnover. This turnover would be subjected to turnover tax if it were not more than K800,000 per annum. In the event that the turnover was to exceed K800,000 per annum, the self-employed individual would be subjected to income tax under the self-assessment system. The self- employed individual will be personally responsible for making the calculations of income tax and for making the payments.

Payment of NAPSA contributions for the self-employed is not mandatory.

(c) The Zambia Revenue Authority (ZRA) would consider several factors in establishing whether someone is employed or self-employed.

# (1) **Type of contract**

If there is a **contract of service**, it will indicate the existence of a legal relationship of master and servant. A **contract for services** will indicate the existence of self-employment.

The contract may be written or it may be oral. Where the contract is a written one, a copy should be obtained and the contents of that particular contract should be studied. In the case of oral contracts, the parties to the contract should be interviewed to establish what has been agreed upon.

Care should still be taken when examining written contracts, as they are not likely to contain all the relevant points. It is always important to use several other methods of gathering the relevant information.

#### (2) Work performance

Employees must perform the duties assigned to them themselves, while the self-employed may hire other people to perform the work for them.

If a person does not have a right to hire helpers, that is likely to lead to the conclusion that there is employment. The self-employed persons will normally have a right to hire their own helpers.

In contracts of service, personal performance is always required, while in the case of contracts for services there may be personal performance or there may not be one. In other words, personal performance is not normally a must in contracts for services.

# (3) **Control**

The work of an employee is controlled by the employer who will normally stipulate working hours, the place at which the duties are to be performed, how the work is to be performed and other conditions.

A self-employed person will decide when to perform the duties and how to perform them.

Where there is an absence of the right of control, employment may still be present. In certain employments, it is not usually possible for the employer to tell the employee what to do, when to do it and the place at which that is to be done.

# (4) **Payment and financial risk**

Employees are paid an agreed salary on a monthly or weekly basis and incur no form of financial risk. In order to earn an extra sum, employees will have to work overtime. Also, employees are going to get any other additional pay or variation in pay if they meet a set target in which case they will receive a bonus or a commission.

Employees do not assume any form of financial risk and they cannot profit from sound financial management.

Self-employed persons are normally paid a proportion of the contract price based on the amount of work performed. They will also bear the full financial risk of their business. If they manage their affairs well, they are going to profit from them.

Care is required in handling certain types of employment as the absence of financial risk will not always indicate that there is employment.

The fact that a casual worker runs the risk of being unable to find work when a particular engagement ceases is not relevant to the determination of whether employment exists or not.

#### (5) **Place of work**

Employees will normally be told where the duties are to be performed. This is normally at the employer's premises or at the premises of the client.

In most employment, the premises from which the duties are to be performed are those of the employer.

Self-employed persons will perform the duties at a place of their choice.

If the person performing duties can only do so at the employer's chosen premises, then that person is an employee. If the person can choose a place from where to perform the duties, that person is self-employed.

#### (6) **Tools and equipment**

An employer will provide the tools and equipment which the employees are to use. However, the fact that the employer does not provide the tools and equipment will not be conclusive. In certain types of employment, the employees will normally be required to provide their own tools and equipment.

Self-employed individuals will provide their own tools and equipment.

# (7) **Correction of work**

Employees will normally rectify any faulty work during the normal working hours and they will still be paid for those hours.

Self-employed persons will rectify any faulty work outside the contract time and they will not be paid for that extra work.

If the person performing duties is not paid for the time spent on correcting work, then that person is self-employed. On the other hand, if the person is paid for the time spent on correcting work, then that person is an employee.

# (8) Engagement and dismissal

The employer will take on and dismiss employees. The employer will have a right or power to terminate the contracts of employment by giving the employees appropriate notice.

A self-employed person will normally enter into a contract with a client specifying the beginning and end. The contract normally ends when the work has been performed completely and accurately.

# (9) **Insurance**

Employers will normally provide insurance cover for the actions of their employees. This is because they are vicariously liable for the offences committed by their employees.

Self-employed persons will have to provide for their own insurance needs. The hirer is not vicariously liable for the offences committed by the hired self-employed contractors.

If the person who is performing the duties takes insurance cover personally, then that person is self-employed. But, if insurance cover is not taken by the person performing the duties personally, then that person is an employee. The employer will have taken insurance cover on behalf of that employee.

#### (10) **Exclusivity**

Employees normally work for only one employer. A self-employed person will normally work for a number of clients.

#### (11) Integration Test

The courts will also consider whether an individual's activity is fully integrated within the organisation. This were the case, it would be difficult for an individual to prove that they are self-employed.

# END OF SOLUTIONS



#### TAXATION PROGRAMME EXAMINATIONS

# DIPLOMA LEVEL

# D5: INTERNATIONAL TAXATION

# THURSDAY 16 JUNE 2022

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 question paper consists of **FOUR (4)** questions of Twenty Five (25) marks each. You must attempt all the **FOUR (4)** 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. A Taxation table is provided on pages 2, 3 and 4.

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

# **Taxation table for paper D5– International Taxation 2022 Examinations**

#### Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K54,000	first K54,000	0%
K54,001 to K57,600	next K3,600	25%
K57,601 to K82,800	next K25,200	30%
Over K82,800		37.5%
Income from farming for individuals		

K1 to K54,000	first K54,000 0%
Over K54,000	10%

#### **Company Income Tax rates**

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

## **Mineral Royalty**

# Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
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 on other minerals**

Type of mineral	Mineral Royalty Rate
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

#### **Capital Allowances**

# Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Plant used normally Used in Manufacturing and Leasing Used in farming and agro-processing Used in mining operations	25% 50% 100% 20%
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)	100/
Wear and Tear Allowance		10%
Initial Allowance		10%
<b>Commercial Buildings</b>		
Wear and Tear Allowance		2%
Farming Allowances		
Development Allowance		10%
Farm Works Allowance		100%
Farm Improvement Allowance		100%

# **Presumptive Taxes**

4%

# Turnover Tax Presumptive Tax for Transporters

Seating capacity	Tax per annum	Tax per day	
	К	K	
From 64 passengers and over	12,960	35.50	
From 50 to 63 passengers	10,800	29.60	
From 36 to 49 passengers	8,640	23.70	
From 22 to 35 passengers	6,480	17.80	
From 18 to 21 passengers	4,320	11.80	
From 12 to 17 passengers	2,160	5.90	
Less than 12 passengers and taxis	1,080	3.00	

# 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 2 years but below 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver		Excise duty K	Customs duty K	Excise duty K
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778		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 2 ye below 5		Aged 5 ye ove	
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
-	К	К	к	К
Sedans cylinder capacity not exceeding 1000 cc Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	12,490 16,058	10,824 13,917	7,136 8,564	6,185 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 Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	10,705 14,274	9,278 12,371	7,136 8,564	6,185 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
<b>Station wagons</b> cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity for 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	•		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	•	18,049	•
		ears but	Aged 5 ye	
Motor vehicles for the transport of goods	below 5	o years	ove	er
-with compression-ignition internal	Customs	Excise	Customs	Excise
combustion piston engine (diesel or semi-	duty	duty	duty	duty
diesel):		17		
Single cab	K	K	K	K
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	30,697	13,302	24,119	10,452
engine				
Panel Vans GVW exceeding 1.0 tonne but not exceeding	15,348	6,651	8,770	3,801
1.5 tonnes 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	24,724	18,955	10,817	8,293
10.0 tonnes 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	37,086	28,432	13,907	10,662
ignition internal combustion piston engine				
Surtax				
On all motor vehicles aged more than the manufacture	five (5) ye	ars from	-	2,000
Customs and Excise o	n New Moto	or 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 Minimum Specific Customs Duty	30% K6,000
	<b>Excise Duty:</b> Percentage of Value for Duty Purposes for Excise Duty Purposes Cylinder capacity of 1500 cc and less Cylinder Capacity of more than 1500 cc	20% 30%
2.	Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:	
	Customs Duty Percentage of Value for Duty Purposes Minimum specific Customs Duty Excise Duty: Percentage of Value for Duty Purposes for Excise Duty Purposes	15% K6,000 10%
3.	Buses/coaches for the transport of more than ten persons	10 /0
	Customs Duty: Percentage of Value for Duty Purposes Minimum Specific Customs Duty Excise Duty:	15% K6,000
	Percentage of Value for Duty Purposes for Excise Duty Purposes Seating Capacity of 16 persons and less Seating Capacity of 16 persons and more	25% 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%

# Attempt all FOUR (4) Questions.

#### **QUESTION ONE**

(a) John is a Zambian working in a foreign mission whose responsibilities include attending and reporting on meetings held on globalisation and other pertinent issues to facilitate Foreign Direct Investment (FDI) and advise on double taxation treaties.

#### **Required:**

Explain the tax treatment of foreign mission.

(4 marks)

(b) Charles Mwape was declared redundant on 30 January 2020. On 15 February, 2020, he used his pension benefits to start a business. The turnover of the business has averaged K1,300,000 per annum. At the beginning of the tax year 2022, Charles Mwape decided to buy 5,000 shares in a company resident in a foreign country.

On 1 June 2022, Charles Mwape started working for a company engaged in mining of copper on a small scale basis in Luapula Province of the Republic of Zambia at an annual salary of K120,000. He was also entitled to a Medical allowance of K600 per month. Effective 1 September, 2022, the company started paying him a housing allowance amounting to K30,000 per annum.

In the tax year 2022, he also had the following income:

- (1) Tax adjusted business profits K172,000 (Provisional tax paid K30,600)
- (2) Royalties K14,000 (gross) from a person resident in the Republic of Zambia.
- (3) Dividends of \$1,000 from the company resident in a foreign country. Withholding tax of 20% was deducted at source.

Charles Mwape is concerned that he will be taxed on his worldwide income. An exchange rate of K16.00 per US\$ should be used where relevant and PAYE was K7,920. When computing Zambian income tax payable, credit is available for any foreign tax paid in the U.K.

#### **Required:**

- (i) Calculate the final income tax payable by Charles Mwape for the tax year 2022. (17 marks)
- (ii) Explain two (2) reasons for taxing residents on their worldwide income in a country such as the Republic of Zambia. (4 marks)

[Total 25 Marks]

## **QUESTION TWO**

International trade opens up the doors for countries to have production capabilities they would not have a chance to take advantage of. One of the theories of international trade is the theory of Comparative Advantage.

However, taxation should be executed in accordance with certain principles while avoiding undermining fundamental individual rights and freedoms.

In order to be effective in meeting the need to combat tax evasion and identify beneficial ownership on, the basis of the new 2012 Financial Action Task Force (FATF) recommendations and its preceding works from the past decade international economic institutions must proceed with further legislation and regulation.

#### **Required:**

- (a) Explain the significance of the law of Comparative Advantage and the Practical perspective of the Law of Comparative Advantage. (8 marks)
- (b) Explain the International Covenant on Civil and Political Rights and taxation.

(5 marks)

(c) Discuss money laundering and international tax avoidance (12 marks) [Total 25 Marks]

#### **QUESTION THREE**

(a) Most economies are members of the regional trade blocs known as Regional Economic Groupings. Advocates of world free trade oppose these groupings because they believe that these groupings only encourage regional as opposed to global free trade.

#### **Required:**

Explain what is meant by Regional Economic Groupings and state four (4)disadvantages of Regional Economic Groupings.(10 marks)

(b) Most international disputes between multinational companies involve transfer pricing. Tensions over transfer pricing have been growing as companies have sought to minimize tax bills by shifting profits to low tax jurisdictions and governments have become increasingly determined to obtain their fair share of multinationals' taxes.

#### **Required:**

Explain what is meant by Transfer Pricing and the Organization for Economic Cooperation Development (OECD) Transfer Pricing Guidelines. (7 marks)

- (c) Explain any two (2) ways in which a cross-border merger can be effected. (4 marks)
- (d) Explain four (4) possible effects of practicing tax evasion by the taxpayer on the economy. (4 marks)

[Total 25 Marks]

#### **QUESTION FOUR**

- (a) Explain five(5) key benefits of Double Taxation Agreements (DTAs). (5 marks)
- (b) The Organization for Economic Co-operation and Development (OECD), has reported that some countries have introduced harmful tax practices that encourage non-compliance with the tax laws of other countries. The OECD defines the two types of harmful tax practices:
- (1) Preference regimes, and
- (2) Tax havens.

Several countries have developed models for enhanced co-operation between revenue authorities in order to work to their mutual benefit.

#### **Required:**

- (i) Explain the factors used to identify Tax Havens according to the Organization for Economic Co-operation and Development (OECD) guidance. (8 marks)
- (ii) Explain the main co-operation models between revenue authorities.

(8 marks)

(iii) Explain the international origin and destination principles as a basis for indirect taxation. (4 marks)

[Total 25 Marks]

#### **END OF PAPER**

#### **D5 SUGGESTED SOLUTIONS**

#### SOLUTION ONE

(a) Tax treatment of foreign missions

The purpose The purpose of the foreign office in any contracting state is to serve the diplomatic and consular communities stationed in the local country, and to control their activities.

All services are based on the principal of reciprocity. In other words, no privileges are granted to foreign officials by the local country unless its diplomatic mission personnel receive the equivalent privileges in that country.

Foreign Office responsibilities include the Diplomatic Tax Exemption Program, which provides sales and use, occupancy, food, airline, gas and utility tax exemptions to eligible foreign officials on assignment in a foreign country.

Tax exemption privileges for foreign diplomats, consular officers, and staff members are generally based on two treaties; the Vienna Convention on Diplomatic Relations and the Vienna Convention on Consular Relations.

Not all foreign missions and their personnel are entitled to tax exemption, because the privilege is based on reciprocity and not all foreign countries grant such tax exemption to foreign embassies and their personnel.

(b)

Charles Mwape

(i)	Income tax payable for the tax year 2022	
.,	Zambian income	К
	Business profits	172,000
	Salary (K120,000 x 7/12)	70,000
	Medical allowance (K600 x 7)	4,200
	Housing allowance (K30,000 x 4/12)	<u>10,000</u>
		256,200
	Royalties	<u>14,000</u>
		270,200
	Foreign income	
	Dividends (\$1,000 x 100/80 x K16.00)	<u>20,000</u>
	Taxable income	<u>290,200</u>
	Commutation	
	Computation	0
	First K54,000 @0%	0
	Next K3,600 @25%	900
	Next K25,200 @30%	7,560
	Excess K207,400 @37.5%	<u>77,775</u> 86 325
	Less:	86,235
	PAYE	(7,920)
		(7,920)

WHT- Royalties (K14,000 x 15%)	(2,100)
Double taxation relief (W)	(4,000)
Provisional income tax paid	<u>(30,600)</u>
Income tax payable	<u>41,615</u>

Workings Foreign tax paid: K20,000 x 20% = K4,000 Zambian tax Gross foreign income x Zambian tax charge Total assessable income K20,000 x K86,235 K290,200 = K5,943 Double taxation relief is therefore K4,000

(b)

- (ii) The reasons are as follows:
  - (1) Fairness Zambia operates a progressive income tax rate scale for individuals because it is considered fair to for higher-income individuals to pay proportionally more of their income as tax.
  - (2) Neutrality If the progressive tax rates are the same in each country and each country taxes only on a source basis, an individual receiving income from each country may pay less tax in total to both countries than an individual who receives that same total amount of income from only one of the countries. Taxpayers are discouraged from splitting their incomes between countries in order to pay less tax in total to both countries than an individual who receives the same total amount of income only from one of the countries.

## SOLUTION TWO

# (a) **Comparative Advantage**

The Law of Comparative Advantage espouses that two countries can gain from trade when each concentrates on the production of that good in which it has greatest comparative cost advantage. "Each country should export goods in which it has a comparative cost advantage."

The significance of the Law of Comparative Advantage is that it provides the justification for the belief that:

- (1) Countries should specialize in what they produce, even when they are less efficient, in absolute terms, in producing every type of good. They should specialize in the goods where they have a comparative advantage.
- (2) International trade should be allowed to take place without restriction on imports or exports i.e. there should be free trade. Free trade and specialization will result in an increase in the world's output, and all countries will share in the benefits.

The law applies in practice, and countries do specialize in the production of certain goods. However, there are certain limitations or restrictions on how it operates.

- (1) Free trade does not always exist. Some countries protect domestic industries and discourage imports. This means that a country might produce goods in which it does not have a comparative advantage.
- (2) Transport costs may be very high in international trade so that it is cheaper to produce goods in the home country rather than to import them.
- (b) Regulation of Freedom of Travel and Taxation in the European Convention on Human Rights.

The 2<sup>nd</sup> clause of Article 2 of Protocol 4 in the ECHR states that everyone can freely move within a country once lawfully there and have a right to leave any country.

The 3<sup>rd</sup> clause of the Convention stipulates that the said right may be subject to limitations in order to maintain national security, public security, public order, or to prevent crime or to protect well-being, morals and the rights and freedoms of others.

The conclusion drawn from the interpretation indicates that in order to prohibit a person from travelling due to tax liability, such a prohibition should be based on applicable law, aimed at a legitimate end and be proportionate to the targeted objective.

In other words, any prohibition on travelling abroad should primarily be for the public benefit. What is important here is amount of liability: it would be inconvenient to implement a ban on leaving the country on someone with a small tax liability. Above all, any impact on the possibility of collecting the tax liability upon leaving the country or any causal link between leaving the country and impossibility of collection are also taken into consideration by the court.

# (c) Money Laundering:

This is a process by which criminals disguise original ownership and control of proceeds of criminal activities such as illegal sales, smuggling drug trafficking and bribery The prevention efforts of money laundering example is that of The Financial Task Force

- Of 1989 brought forward by the G-7 summit whose emphasis was directed at:
  - Transparency from financial institutions
  - Legal shareholder registers
  - Regularly updated beneficial owner register
  - Corporate directors requirements
  - Due diligence and
  - Financial intelligence units
  - International tax avoidance

This is tax avoidance in cross border transactions and there is need to minimize these so as to protect economies such as the Direct Tax Treaty which however has a problem of avoiding domestic tax obligations

#### SOLUTION THREE

#### (a) Meaning and Disadvantages of Regional Economic Groupings

Regional Economic Grouping is a group of individual countries in a sub-region that come together for the purpose of achieving greater economic integration. It is often a regional intergovernmental organization where regional barriers to trade, (tariffs and non-tariff barriers) are reduced or eliminated among the participating countries.

The disadvantages include:

- (1) Regionalism vs. Multinationalism: Economic groupings: Economic groupings bear an inherent bias in favour of their participating countries. For example, free trade agreement between Zambia and South Africa, has contributed to an increased flow of trade among these two countries. However, regional economies by establishing tariffs and quotas protect intra-regional trade from outside forces rather than pursuing a global trading regime within the regional economic group which includes the majority of the world countries, regional economic bloc countries contribute to regionalism rather global integration.
- (2) Loss of Sovereignty: An economic grouping, particularly when it is coupled by a political union, is likely to lead to at least partial loss of sovereignty for its participants. For example, the European Union, started as a trading bloc in 1957 by the Treaty of Rome, has transformed itself into a far reaching political organization that deals not only with trade matters, but also with human rights, consumer protection, greenhouse gas emissions and other issues only marginally related to trade.
- (3) Concessions: No country wants to let foreign firms gain domestic market share at the expense of local companies without getting something in return. Any country that wants to join a regional economic grouping must be prepared to make concessions. For example, in economic groupings that involve developed and developing countries, such as bilateral agreements between EU and African countries, the latter may have to allow multinational corporations to enter their home markets, making some local firms uncompetitive.
- (4) Interdependence: Because economic groupings increase trade among participating countries, the countries become increasingly dependent on each other. A disruption of trade within an economic grouping as a result of a natural disaster, conflict or revolution may have severe consequences for the economies of all participating countries.

# (b) **Transfer Pricing and the Organization for Economic Co-operation Development (OECD) Transfer Pricing Guidelines**

Transfer pricing is the general term used to refer to the problem of allocating profits among the parts of a corporate group. For the group as a whole, all that matters at the end of the day are

the after tax profit of the group rather than of its individual members.

In order to achieve the application of the international arm's length principle in practice, the tax administration starts with the accounts of the local branch or subsidiary, makes the usual adjustments to reflect differences between financial accounting and tax rules, and then makes such further adjustments in accordance with the arm's length principle as necessary.

The increasing integration of the activities of corporate groups, the growing importance of unique intragroup intangibles and services, and the sophistication of their financing operations mean, however, that application of the arm's length standard is becoming more difficult, both conceptually and practically. The problems have been addressed in part by the OECD, which has expanded its guidance on this issue. The OECD standards represent the internationally accepted norms giving content to the arm's length principle.

The problem that transfer pricing currently represents for developing and transaction countries is one of administrative capacity. The development of advance pricing arrangements with the encouragement of the OECD may simplify the administrative task of transition and developing countries in the future by supplying readily applicable formulas for various economic sectors.

Transfer pricing adjustments on the arm's length principle have traditionally been viewed as involving price only and not the reconstruction of transactions in the sense of disregarding the nominal transaction between the related parties and substituting another arrangement for tax purposes. The transfer pricing guideline, while recognizing that adjusting prices of actual transactions is the norm; do permit tax administration to recharacterise transactions in two exceptional circumstances:

- (1) Where the economic substance of a transaction differs from the form
- (2) Where the "arrangements made in relation to the transaction, viewed in their totality, differ from those which would have been adopted by independent enterprises behaving in a commercially rational manner and the actual structure practically impedes the tax administration from determining an appropriate transfer price".

Countries are enacting general provisions in their tax laws directed against tax avoidance, which give powers to reconstruct transactions. It seems to be increasingly accepted by the OECD that such rules are not in conflict with treaty obligations and can be applied to international transactions.

- (c) The ways in which cross-border meger can be effected
  - (1) Merger by absorption

This is when an existing company acquires all the assets and liabilities of its wholly owned subsidiary. On being dissolved and without going into liquidation, the subsidiary transfers all of its assets to its parent.

#### (2) Merger by acquisition

This is when a company acquires the assets and liabilities of another company in exchange for the issue to the members of the transferor company securities or shares in the acquiring company, either with or without any cash payment. The transferor company is then dissolved without going into liquidation.

#### (3) Merger by formation of a new company

This when two or more companies transfer all of their assets and liabilities to a successor company that they form in exchange for the issue to their members of securities or shares representing the capital of that new company, with or without any cash payment.

- (d) The following are the possible effects of tax evasion:
  - (1) Reduces government revenue.
  - (2) Tax burden is transferred to a few taxpayers who are compliant.
  - (3) It discourages taxpayers that are compliant from paying taxes.
  - (4) Non-compliant taxpayers tend to compete favourably compared to those that are compliant since tax is a cost to the business.

#### **SOLUTION FOUR**

- (a) The benefits of double taxation agreements
  - (1) Protect against the risk of double taxation where the same income is taxed in two states. This could present a "huge" burden on the taxpayers and effectively work against the promotion of globalisation and its resulting benefits.
  - (2) Provide certainty of treatment for cross –border trade and investment. Certainty is one of the good qualities of a good tax system. Taxes should be certain. If tax rules are complex, they can be subverted and evaded.
  - (3) Prevent excessive foreign taxation and other forms of discrimination against business interests abroad. This could have an adverse impact on economic performance of the respective countries.
  - (4) Protect the government's taxing rights and protect against attempts to avoid or evade tax. Aggressive tax avoidance and/or tax evasion could result in significant reduction in tax revenues. This could result in reduced service delivery, in key sectors of the economy, by the government.
  - (5) They also contain provisions for the exchange of information between national taxation authorities. This could boost tax revenue and impact positively on the respective economies.
- (b) Tax havens
  - (i) The following are the factors used to identify tax havens:
    - (1) No or only nominal taxes it means that there is no or nominal tax on the relevant income, usually capital. This is the first necessary condition to identify a tax haven but it is not sufficient because a country may be competing fairly or adopting a preferential regime.
    - (2) Lack of effective exchange of information tax havens typically have in place laws or administrative practices under which businesses and individuals can benefit from strict secrecy rules and other protections against scrutiny by tax authorities thereby preventing the effective exchange of information on taxpayers benefiting from the low tax jurisdiction.
    - (3) Lack of transparency For example, the details of the regime and/or its application are not apparent, or there is inadequate regulatory supervision or financial disclosure. Lack of transparency may be attractive for those who want to hide the origins of their income or keep them undeclared in their source countries; and
    - (4) No substantial activities the jurisdiction facilitates the establishment of foreign owned entities without the need for a local substantive presence. This is what makes doubtful how small islands can host billions of dollars in foreign direct investment if they apparently do not have the necessary resources to yield production.
  - (ii) The main co-operation models
    - (1) Joint investigation teams: these enable agencies with a common interest to work together in an investigation. In addition to sharing information, this enables an investigation team to draw on a wider range of skills and

experience from investigators with different backgrounds and training. Joint investigations may avoid duplication arising from parallel investigations, and increase efficiency by enabling officials from each agency to focus on different aspects of an investigation, depending upon their experience and legal powers.

- (2) Inter-agency intelligence centres: these are typically established to centralize processes for information gathering and analysis for a number of agencies. They can focus on a specific geographical area or type of criminal activity, or have a wider role in information sharing.
- (3) Secondments and co-location of personnel: these are an effective way of enabling kills to be transferred while allowing personnel to build contacts with their counterparts with their counterparts in another agency.
- (4) Other strategies include the use of shared databases, dissemination of strategic intelligence products such as newsletters and intelligence briefs, joint committees to coordinate policy in areas of shared responsibility, and inter-agency meetings and training sessions to share information on trends in financial crime, guidance on investigative techniques and best practice in managing cases.
- (iii) The international origin principle says that internationally traded commodities should be taxed at the rates prevailing in the country where goods are produced which is the country receiving the tax revenue. Under the origin principle, exports are taxed and imports are exempted, so that in equilibrium, the home (foreign) country's consumer must be indifferent between paying for domestically produced goods and for those imported.

Alternatively, the destination principle or basis espouses that internationally traded commodities are taxed at the rates prevailing in the country where final consumption takes place, this being the country which obtains the tax revenue.

#### END OF SOLUTIONS



#### TAXATION PROGRAMME EXAMINATIONS

# DIPLOMA LEVEL

# D6: TAX AUDIT AND INVESTIGATIONS

# MONDAY 13 JUNE 2022

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 question paper consists of **FOUR (4)** questions of Twenty Five (25) marks each. You must attempt all the **FOUR (4)** 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. A Taxation table is provided on pages 2, 3 and 4.

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

# **Taxation table for paper D5– International Taxation 2022 Examinations**

#### Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K54,000	first K54,000	0%
K54,001 to K57,600	next K3,600	25%
K57,601 to K82,800	next K25,200	30%
Over K82,800		37.5%
Income from farming for individuals		

K1 to K54,000	first K54,000 0%
Over K54,000	10%

#### **Company Income Tax rates**

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

## **Mineral Royalty**

# Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
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 on other minerals**

Type of mineral	Mineral Royalty Rate
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

#### **Capital Allowances**

# Implements, plant and machinery and commercial vehicles:

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

# **Presumptive Taxes**

4%

# Turnover Tax Presumptive Tax for Transporters

Seating capacity	Tax per annum	Tax per day	
	К	К	
From 64 passengers and over	12,960	35.50	
From 50 to 63 passengers	10,800	29.60	
From 36 to 49 passengers	8,640	23.70	
From 22 to 35 passengers	6,480	17.80	
From 18 to 21 passengers	4,320	11.80	
From 12 to 17 passengers	2,160	5.90	
Less than 12 passengers and taxis	1,080	3.00	

# Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares		
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 2 years but below 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver		Excise duty K	Customs duty K	Excise duty K
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778		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 2 years but 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
-	К	К	к	К
Sedans cylinder capacity not exceeding 1000 cc Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	12,490 16,058	10,824 13,917	7,136 8,564	6,185 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 Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	10,705 14,274	9,278 12,371	7,136 8,564	6,185 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	16,545	21,508	9,024	11 721
cylinder capacity not exceeding 2500 cc Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	21,508 23,463	9,024 13,357	11,731 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	•	-	•
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	•	•	•
	Aged 2 y below 5	ears but	Aged 5 ye ove	
Motor vehicles for the transport of goods		ycars	000	-1
-with compression-ignition internal	Customs	Excise	Customs	Excise
combustion piston engine (diesel or semi- diesel):	duty	duty	duty	duty
	К	к	К	К
Single cab			- <b></b>	
GVW exceeding 1.0 tonnes 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	30,697	13,302	24,119	10,452
ignition internal combustion piston				
engine				
Panel Vans GVW exceeding 1.0 tonne but not exceeding	15,348	6,651	8,770	3,801
1.5 tonnes GVW exceeding 1.5 tonnes but not exceeding	17,541	7,601	15,348	6,651
3.0 tonnes GVW exceeding 3.0 tonnes but not exceeding	21,926	9,501	17,541	7,601
5.0 tonnes <b>Trucks</b>				
GVW up to 2 tonnes	21,926	9,501	10,963	4,751
GVW exceeding 2.0 tonnes but not exceeding	28,504	12,352	13,156	5,701
5.0 tonnes GVW exceeding 5.0 tonnes but not exceeding	24,724	18,955	10,817	8,293
10.0 tonnes GVW exceeding 10.0 tonnes but not exceeding	30,905	23,694	11,744	9,004
20.0 tonnes GVW exceeding 20 tonnes	51,898	0	19,461	0
GVW exceeding 20 tonnes, with spark	37,086	28,432	13,907	10,662
ignition internal combustion piston engine				
Surtax				
On all motor vehicles aged more than the manufacture	five (5) ye	ars from	-	2 000
manufacture Customs and Excise o	n New Moto	or vehicles		2,000
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 Minimum Specific Customs Duty	30% K6,000
	<b>Excise Duty:</b> Percentage of Value for Duty Purposes for Excise Duty Purposes Cylinder capacity of 1500 cc and less Cylinder Capacity of more than 1500 cc	20% 30%
2.	Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:	
	Customs Duty Percentage of Value for Duty Purposes Minimum specific Customs Duty Excise Duty:	15% K6,000
-	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 Minimum Specific Customs Duty Excise Duty:	15% K6,000
	Percentage of Value for Duty Purposes for Excise Duty Purposes Seating Capacity of 16 persons and less Seating Capacity of 16 persons and more	25% 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%

## All FOUR (4) Questions are compulsory and MUST be attempted.

## **QUESTION ONE**

It is cardinal, for tax purposes, that individuals and businesses submit tax returns to a tax agent based on a self-assessment method and as such, it is these tax returns which become the basis of tax audits. There are many underlying theories which impinge on the tax auditing process which eventually culminates in a tax audit report. This being the case, it is common knowledge that the auditing process can only succeed if a supportive taxpayer audit Programme and legal framework are adhered to. All in all, this requires a well-articulated organization and management of the taxpayer audit function as well as the adoption and application of appropriate audit techniques which would encourage compliance on the part of the taxpayers.

## **Required:**

- (a) Discuss four (4) auditing theories that have contributed to the evolution of the audit profession. (12 marks)
- (b) Explain how industries can be benchmarked with the help of ratio analysis.

(3 marks)

- (c) Explain the difference between self-assessment and administrative assessment. (5 marks)
- (d) Explain any FIVE (5) roles of the tax payer's audit programme. (5 marks)

## [Total: 25 Marks]

## **QUESTION TWO**

You have recently been employed by the Zambia Revenue Authority as an assistant tax auditor upon completion of a Diploma in Taxation Programme. Your team is visiting Zamnet telecommunication Limited which is a VAT registered Company to conduct a tax audit. Zamnet telecommunication Limited is the air time manufacturer with numerous subscribers. Your team leader has asked you to maintain working papers as you carry out a tax audit at Zamnet telecommunication Limited's premises and document any audit findings. Zamnet Telecomunication Limited , is a Zambian resident company. The Telecommunication Company is an 85% owned subsidiary of Gambia telecommunication Corporation (GAMTEL), a multinational company resident in a foreign country. Zamnet telecommunication Limited prepares its financial statements annually to 31 December.

	<u>K</u>	<u>K</u>
Sales (Note 1)		158,440
Opening stock	4,630	
Purchases	<u>65,900</u>	
	70,530	
Closing stock	<u>(5,000)</u>	<u>(65,530)</u>
Gross profit		92,910
Royalties received (net)	9,000	
Dividend received from a Zambian firm	5,400	<u>14,400</u>
		107,310
Less expenses and losses:		
Rent and Rates	10,500	
Depreciation	4,000	
Entertainment (Note 2)	16,700	
Repairs and Renewals (Note 3)	15,000	
Subscriptions to Manufacturers association	4,800	
Motor expenses (Note 4)	16,000	
Managing directors emoluments (Note 5)	16,000	<u>(83,000)</u>
Profit before interest and taxation		24,310
Loan interest		<u>(8,400)</u>
Profit before tax		15,910
Taxation		( <u>10,000)</u>
Profit for the year		<u>5,910</u>

## The Statement of profit or loss for the year ended 31 December 2022 is as follows:

#### Additional notes are as follows:

## Note 1: Discount given to Air time Dealers

2% of Zamnet telecommunication Limited's sales revenue represents a discount amount that was given to its Airtime Dealers for buying talk time in bulk. This amount was not accounted for in the books for the Telecommunication company.

## Note 2: Entertainment

This amount includes:	К
Esteemed customers	4,820
Supplier	3,740
Staff	<u>8,140</u>
	<u>16,700</u>

## Note 3: Repairs and Renewals

This amount included K5,000 that was paid for acquisition of land and K2,820 incurred on fitting security bars around the shop.

### Note 4: Motor expenses

This amount consisted of the following:	К
Repairs to motor cars	8,200
Purchase of a new engine	<u>7,800</u>
	16,000

## **Note 5: Managing Director**

The amount of K16,000 represents taxable emoluments for the Managing Director who is accommodated in a new company house. If this house was rented out, it would cost the company K36,000 per annum. The Director has been given a Toyota Land Cruiser car on a personal to holder basis with a cylinder capacity of 3500 cc.

## **Note 6: Additional information**

During the year ended 31 December 2022, the company acquired the following implements, plant and machinery:

Cost
К
80,000
100,000
120,000

The above costs of implements, plant and machinery are all inclusive of VAT

## **Required:**

(a) Briefly outline four (4) factors that should be considered before a standard method of taxing business in the telecommunication sector is implemented. (4 marks)

(b) Explain three (3) reasons why tax auditors need to maintain audit working papers and three (3) ways in which tax audit activities add value to the ZRA's operations.

(6 marks)

(c)	Calculate the capital allowances for the tax year 2022.	(4 marks)
(d)	Calculate the adjusted business profit for the tax year 2022.	(7 marks)
(e)	Explain how a tax audit appeal could be carried out.	(4 marks)

[Total: 25 Marks]

## **QUESTION THREE**

(a) Transfer pricing is the charging for goods or services provided between members of a group and this entails moving funds around the group without creating any profit for the group per say. However these transactions can have tax implications in cases where the tax rates within the group are different'

### **Required:**

(i) List five (5) circumstances that would trigger a transfer pricing audit.

(5 marks)

(ii) Briefly explain the arm's length concept in transfer pricing. (5 marks)

(b) Campaundi plc is incorporated in Zambia and 85% of its shares are owned by George plc which is domiciled in a foreign country. An agreement was made between Campaundi plc and George plc where Campaundi was to purchase some goods from George plc at a price below the market price. This being the case ZRA initiated a tax enquiry related to this TP transaction.

#### **Required:**

Elaborate whether this transaction amounts to a transfer pricing transaction.

(6 marks)

- (c) Briefly describe any three (3) classes of lease agreements. (5 marks)
- (d) Explain four (4) methods by which a company can obtain a quotation on the stock market. (4 marks)

[Total: 25 Marks]

### **QUESTION FOUR**

The peculiarities and intricacies associated with the mining, banking and telecommunication sectors have an impact on revenue collection by the government in Zambia. This being the case, efforts have been made to encourage investment in these sectors so as to widen the tax base. In Zambia, mining is governed by the Mines and Minerals Development Act of 2015 and mining is the extraction of material whether solid, liquid or gaseous from beneath the surface of the earth for various purposes.

#### **Required:**

(a)	Briefly explain the tax treatment of the following:	
	(i) Discounts to Air time dealers	(4 marks)
	(ii) Discounts to subscribers	(4 marks)
	(iii) Network switch expenditure	( 4 marks)
	(iv) Roaming charges and income	(4 marks)

(b) You are carrying out a tax audit of UPTOWN Bank Ltd for the charge year 2022 and the following details are available:

- (i) The accounts, tax computation and return submitted to the Zambia Revenue Authority showed a taxable profit of K6,800,500. A review of the tax computation showed that no adjustments had been made with regard to provisions for loan losses and exchange losses/gains.
- (ii) The Provision for Loan Losses in the Statement of profit or loss is broken down as follows:

	K 000
Specific loan loss provision	3,100
General loan loss provision	<u>1,200</u>
Total provision for loan losses	<u>4,300</u>

1//000

(iii)	The analysis for the Exchange Loss is as follows:	
		K′000
	Realized exchange losses	1,200
	Unrealized exchange losses	<u>600</u>
		<u>1,800</u>

A further analysis of the K1,200,000 for realized exchange losses revealed that only K300,000 was revenue in nature.

# **Required:**

Compute the adjusted taxable profit/loss for UPTOWN Bank Ltd giving reasons for the adjustments you intend to make to the declared profit. (9 marks)

[Total: 25 Marks]

**END OF PAPER** 

### **D6 SUGGESTED SOLUTIONS**

## SOLUTION ONE

(a) Four (4) auditing theories that have contributed to the evolution of the audit profession:

### (i) The policemen theory

This theory claims that the auditor is responsible for searching, discovering and preventing fraud which was the case in the early 20<sup>th</sup> century. However with changes in the audit profession, the focus has shifted to providing a reasonable assurance and verifying the truth and fairness of the financial statements.

### (ii) The lending credibility theory -

This theory suggests that the primary aim of the auditor is to add to the credibility of the financial statements. In this regard external auditors are selling their credibility to their clients. The perception is that external audit work has certain elements that can increase credibility of the financial statements which increases confidence of the users in the financial statements.

### (iii) The theory of inspired confidence

This theory addresses both the demand and supply for audit services. The demand for audit services is a direct consequence of the participation of direct third parties. These parties demand accountability from directors in return for their investment in the company. Accountability is realised through the issuance of financial statements on a reg ular basis as this information is provided by external auditors who are not influenced by management. With regard to the supply of audit services, auditors need to strive to achieve public expectations.

## (iv) **The agency theory**

This theory suggests that the auditor is appointed by the principal who are the shareholders and also in the interest of management as well. The management of a company can also be viewed as agents of various stakeholders that it relates to, such as banks, government, tax authorities and creditors who should be informed through financial statements of how the company has performed. There is however a possibility of management acting in their own interest at the expense of shareholders and other stakeholders. Therefore external auditors are required to give an independent opinion on whether financial statements show a true and fair view, in all material respect, in accordance with an applicable financial reporting frame work.

(b) Industries can be benchmarked with the help of ratio analysis as follows:

 An analysis of ratios can be used to compare with expected performance indicators within an industry sector. This can then be used to identify taxpayers who fall outside the industry norms.

- It can also be used to test the declared incomes of businesses, and to make estimations of income for taxpayers with incomplete books & records. In practice, different ratios are computed for this purpose.
- (c) Differences between self-assessment and administrative assessment includes:

Administrative assessment systems operate on the understanding that all tax returns should be subjected to a degree of technical scrutiny before a formal assessment is sent to the taxpayer. In practice, this is done based on taxpayer risk profiles by automated screening techniques to identify returns requiring further scrutiny before a revised formal assessment can be issued. The depth of examination depends on the risk profile attached to the return.

Self-assessment system operates on the principle that returns are typically accepted as filed in the first instance, save for mathematical errors. Revised assessments advising the tax liability is sent to the taxpayer before any inquiry.

(d) FIVE (5) roles of the tax payer's audit Programme can be any of the following:

- (1) **Promotion of voluntary compliance**-by reminding the tax payer of the risks of non-compliance and inculcating confidence in the tax payer, serious abuses can be minimized through dissemination of such tax information.
- (2) **Detection of non-compliance** by tax payer-significant omissions and understatements can be detected through a tax audit Programme.
- (3) **Collection of tax information on behalf of the tax payer**: as details are gathered by the use of the audit Programme, certain pattern of risk that emerges can be documented and analyzed by the tax auditor .In the final end appropriate audit procedures as such as risk based procedures can be designed to deal with tax evasion /avoidance schemes that can prevent such abuses from happening in future.
- (4) **Gather intelligent information**-the information on tax evasion and avoidance can be used to come up with counter measures such as strict inspections and anti- tax squads can be set up.
- (5) **Educating tax payers**-audits can assist to clarify the application of the law for individual tax payers and to identify improvements required for record keeping and thus may contribute to improved compliance by the tax payers in the future.
- (6) **identify areas of the law** that requires clarification-audits may bring to light areas of the tax law that are causing confusion and problems to large numbers of taxpayers and thus required further efforts by ZRA to clarify and educate the tax payer.

## SOLUTION TWO

- (a) Four (4) factors that should be considered before a standard method of taxing business in the telecommunication sector is implemented:
  - (i) The distributional consequences.
  - (ii) Their cost of collection, which includes the degree of avoidance and evasion to which they are subject or
  - (iii) Whether it is at least partially assimilated by the purchaser
  - (iv) The degree to which the tax distorts the pattern of consumption, and for this reason, imposes an additional cost on the economy (sometimes known as the excess burden)
- (b) Three (3) reasons why tax auditors need to maintain audit working papers and three (3) ways in which tax audit activities add value to ZRA's operations:
  - They assist the team leaders and other officers who may be dealing with the case at a later stage i.e tribunal/court proceedings.
  - They are a connecting link between the examination of taxpayers' affairs and audit report; and
  - They can be evaluated as part of the Quality Assurance process

Three (3) ways in which tax audit activities add value to ZRA's operations :

- Acts as primary treatment for taxpayers that resist administrative efforts aimed at taxpayer's voluntarily reporting of all their tax liabilities.
- Serves to remind taxpayers of the risks associated with the deliberate non-reporting of liabilities, and in so doing may increase confidence across the broader population that deliberate non-compliance is being appropriately dealt with.
- Data gathered from audit activities is an important contributor to increasing awareness and assessment of compliance risks, which is essential to devising of appropriate treatment actions by revenue bodies.

(c) Capital allowances for the tax year 2022.

# Zamnet telecommunication Limited

(i) Capital allowances-

Assets	<u>Cost/ITV</u>	Capital allowance
	К	К
Motor vehicles		
Cost	80,000	
Wear & Tear @20%	<u>(16,000)</u>	16,000
Income tax value C/F	<u>64,000</u>	
Plant and machinery		
Cost (K100,000 x 25/29)	86,207	
Wear & Tear @25%	<u>(21,552)</u>	21,552
Income tax value c/f	<u>64,655</u>	
Furniture		
Cost (K120,000 x 25/29)	103,448	
Wear & Tear@25%	<u>(25,862)</u>	<u>25,862</u>
Income tax value c/f	<u>77,586</u>	
Total capital allowances		<u>63,414</u>
(d) Adjusted business profit for the tax year 2022.		
Zamnet Telecommunication Limited		
	К	K
Net profit before tax		15,910
Add:		
Depreciation	4,000	
Security bars	2,820	
Acquisition of land	5,000	
Entertainment-customers	4,820	
-suppliers	3,740	
Motor expenses: purchase of new engine	7,800	
Accommodation benefit: 30% x 16,000	4,800	
Car benefit (3500 cc)	40,000	72,980

Less:		
Discount allowed(158,440 @2%)	3,169	
capital allowances W	63,414	
Royalties	9,000	
Dividends	5,400	
<u>(80,983)</u>		
Adjusted business profits		<u>7,907</u>

88,890

(e) A tax audit appeal can be carried out as follows:

The Income Tax Act has made provisions for the tax payer to launch in an appeal whenever they are not satisfied with the expected amount charged or arrived at by ZRA officers. These disputes normally arise from self-assessment returns. For tax payer to be successful with the tax appeal:

- It has to be done within thirty (30) days and need to notify the Commissioner Generals office on time.
- The taxpayer's objections have to be in writing for them to be entertained.
- Any delay after the acceptable time has elapsed, the appeal will not be accepted.
- However, ZRA reserves the rights to hear a case in special cases even when the time has elapsed.
- Any decision arrived at would be communicated in writing to the complainant (Tax payer).
- In cases where the tax payer is not happy with the outcome from the Tax Appeals Tribunal (TAT).
- If still not satisfied they can apply for a judicial review to the High court on a matter of law and not fact, if the tax payer decides to appeal to the High court.
- There is a provision for the tax payer to go further to the Supreme Court on point of law if the tax payer was not satisfied with the outcome from the High court.

## SOLUTION THREE

(a) (i) Five (5) circumstances that would trigger a transfer pricing audit.

- Enterprises which have significant amount of or various types of related party transactions;
- Enterprises which have been in long-term consecutive losses, low profitability, or fluctuating profit and loss situations;
- Enterprises whose profit levels are lower than those in the same industry;
- Enterprises showing an obvious mismatch between their profit levels and their functional and risk profile;
- Enterprises which have business dealings with related parties in tax havens;
- Enterprises which have not complied with the reporting of their related party transactions or preparation of contemporaneous documentation; and

#### (ii) Arm's length principle

The "arm's-length principle" of transfer pricing states that the amount charged by one related party to another for a given product must be the same as if the parties were not related.

An arm's-length price for a transaction is therefore what the price of that transaction would be on the open market. In general, determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer.

A controlled transaction meets the arm's length standard if the results of the transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances (arm's length result).

- (b) Transfer pricing transaction evidence:
  - This transaction is between related parties
  - The price charged is below the market price
  - And as such does not adhere to the arm's length principle
- (c) THREE (3) classes of lease agreements:

## (i) **Operating Lease**;

An operating lease is an agreement similar to a typical rental agreement on a real property where the lessee has the right to use the asset in return for lease rentals over the lease term. However, the legal ownership of the leased asset remains with the lessor, and therefore, the lessor is entitled to claim capital allowances on the same leased asset. The lessor is also responsible for maintenance and insurance of the asset and those expenses are generally tax allowable/deductible. Lease rentals are fully tax deductible and VAT is claimable for the lessee.

# (ii) Sale and Lease Back;

The business sells an asset it owns and then enters into a lease with a financial institution so as to continue using the asset it earlier sold. The leased asset is available for use by the company for the period of the lease at an agreed rental. The business h as the asset and has also raised funds. The lessor charges VAT on the capital component of the lease rental, which is claimable. Only the finance charges are tax deductible.

# (iii) **Finance Lease**.

Finance lease is an arrangement where all the risks and rewards of ownership are substantially transferred to the lessee. The lessee is responsible for maintenance and insurance of the leased asset. The costs incurred by the lessee on the leased asset are all allowable for tax purposes. In addition the lessee claims capital allowances. The lessee claims the input VAT on the cost of the leased asset. The interest income is taxable on the lessor.

- (d) Four (4) methods by which a company can obtain a quotation on the stock market.
  - 1. An offer for sale-this is a means of selling the shares of a company to the public.it may sell issue shares and then sell them on stock exchange in order to raise for the company.
  - 2. A prospector's issue
  - 3. A placing
  - 4. An introduction

### **SOLUTION FOUR**

- (a) The tax treatments of the item are as follows:
  - (i) Tax treatment of Discount to Air time dealers. A discount is deduction from the sales made to a customer by airtime manufacturer according to some form of agreement. Therefore it will be deducted from the sale and it will not form part and parcel of the sale.
  - (ii) Tax treatment of Discounts to subscribers: Similarly, a discount given to a subscriber will reduce the cost of his purchase when submitting the tax returns to the Zambia Revenue Authority.
  - (iii) Tax treatment of Network Switch Expenditure: Network switch expenditure will be treated as part of a cost of making an outward bound telephone call when ascertaining the cost of accessing telephone services. The caller will be billed as such.
  - (iv) Tax treatment of Roaming charges and Income. Making a call to someone on a roaming facility entails charging both the person making the call as well as the one retrieving the cost. However the tax treatment of charges will be determined by establishing where the income which arises from this service facility is recorded or accrued. When the roaming charges are receivable by a company resident here in Zambia, then that income will be subjected to the Zambian laws regarding VAT and income tax. Otherwise they will not be chargeable.

## (b) UPTOWN Bank Ltd

	K′000	K′000
Taxable profit		680,015
Add Back:		
General loan loss provision	1,200	
Capital exchange loss (1,200,000-300,000)	<u>900</u>	
		<u>2,100</u>
Taxable profit		<u>8,900</u>

#### **Reasoning:**

General Provision for Bad Debts -

- General Provisions are not allowable and Banks are not an exception; only specific bad debt provisions are allowable;
- Both the Loan Principal and Interest are tax deductible;
- Section 43A (2) states that the maximum allowable shall not exceed minimum provision under the Banking and Financial Services Act, less the value of Security or Collateral pledged against the Debt. We are not obliged to give a further allowance of K3,000,000 where the Bank has made provision under IFRS.

Exchange Losses -

- For Banks , Exchange Losses are deductible, whether Realized or Unrealized;
- · Like any other, Capital Exchange Losses are not tax deductible.

# **END OF SOLUTIONS**