



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA 1: FINANCIAL ACCOUNTING

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MONDAY 9 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:  
Section A: One (1) Compulsory question.  
Section B: Five (5) Optional Questions. Attempt any 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.**

## **SECTION A – (Compulsory)**

### **Attempt all ten (10) multiple choice questions**

#### **QUESTION ONE**

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

- 1.1 Monde, a sole trader has been trading for a few years and has an accounting year that ends 31 December each year.

At 31 December 2017, she had opening net assets of K200,000 and closing net assets of K600,000. During the year, she took out goods for personal use amounting to K410,000 and introduced additional capital of K300,000.

What was her profit for the year ended 31 December 2017?

- A. K800,000
- B. K310,000
- C. K510,000
- D. K600,000

(2 marks)

- 1.2 Which of the following items (i) to (v) would be classified as revenue expenditure?

- (i) Purchase of delivery van for resale
- (ii) Repayment of bank loan
- (iii) Drawings
- (iv) Repainting an office building after two years of its construction
- (v) Depreciation of buildings on straight line method

- A. (i), (ii), (iv) and (v)
- B. (i), (iv) and (v)
- C. (ii), (iii) and (iv)
- D. (iii), (iv) and (v)

(2 marks)

- 1.3 Wankie Ltd has total receivables of K300,000 as at 31 December 2017 and an allowance for receivables brought forward on 1 January 2017. During the year ending 31 December 2017, K3,400 worth of receivables were written off and a company whose debt of K1,000 had been written off during the year made an unexpected payment of K500 two days before the year end.

Wankie Ltd decided to increase the allowance for receivables at 31 December 2017 to K18,000.

What is the charge to the profit and loss for the year ending 31 December 2017 in respect of receivables expense?

- A. K11,400
- B. K3,900
- C. K10,900
- D. K28,000

(2 marks)

1.4 Equity dividends can be paid out of.....

- A. Revaluation reserve
- B. Ordinary share capital
- C. Share premium
- D. Retained profits

(2 marks)

1.5 Which one of the following organisations issue International Public Sector Accounting Standards?

- A. IFAC
- B. The National Assembly of Zambia
- C. IASB
- D. IPSASB

(2 marks)

1.6 Which one of the following terms refers to a group of modules in accounting package.

- A. A ledger
- B. A register
- C. A suit
- D. A set

(2 marks)

1.7 The following is an extract from GattaPlc financial statements:

Statement of financial position extract as at:

|                            | 30 September 2017 | 30 September 2016 |
|----------------------------|-------------------|-------------------|
|                            | K'000             | K'000             |
| 10% debenture loan         | 8,000             | 12,000            |
| Ordinary shares of K1 each | 30,000            | 20,000            |
| Share premium              | 9,000             | 4,000             |

What is the net cash flow under financing activities in the statement of cash flows for the year ending 30 September 2017 of GattaPlc?

- A. K4,000,000
- B. K11,000,000
- C. K16,000,000
- D. K15,000,000

(2 marks)

- 1.8 GT Ltd has been in business for a number of years. The following are equity details from the trial balance extract at the beginning of the year ending 30 September 2017.

|   | Dr<br>K'000 | Cr<br>K'000 |
|---|-------------|-------------|
| Ordinary share capital (500,000 shares of K0.50 each) |             | 250         |
| Share premium   |             | 75          |
| Retained earnings                                     |             | 400         |
| General reserves                                      |             | 100         |

During the year, GT Ltd made a rights issue of 3 new shares for every 5 existing shares at a price of K4 per share.

What is the share premium balance adjusted for the rights issue?

- A. K1,260,000
- B. K1,125,000
- C. K75,000
- D. K1,440,000

(2 marks)

- 1.9 An invoice received from a supplier has been entered into both the purchases day book and the payables ledger as K600 instead of K400. This type of error is known as:

- A. Omission error
- B. Original entry error
- C. Transposition error
- D. Commission error

(2 marks)

- 1.10 Ngwira, a sole trader has sales of K1,200,000, purchases of K500,000, closing inventory of K170,000 and applies a percentage on sales of 30% to arrive at its gross profit.

Calculate the opening inventory that Ngwira had at the start of the year.

- A. K510,000
- B. K670,000
- C. K360,000
- D. K400,000

(2 marks)

**[Total: 20 Marks]**

## SECTION B

Attempt any FOUR questions out of FIVE in this section.

### **QUESTION TWO**

Lubinda is a sole trader dealing in the purchase and supply of plumbing accessories. The following is a trial balance extracted from the books of Lubinda at 31 December 2017:

|                                | Dr<br>'K'        | Cr<br>'K'        |
|--------------------------------|------------------|------------------|
| VAT recoverable                | 6,160            |                  |
| Drawings                       | 17,500           |                  |
| Returns in and out             | 1,860            | 1,350            |
| Discounts allowed and received | 480              | 1,380            |
| Purchases and sales            | 862,020          | 1,233,000        |
| General office expenses        | 40,000           |                  |
| Wages and salaries             | 60,260           |                  |
| Printing and stationery        | 16,800           |                  |
| Commissions payable            | 35,000           |                  |
| Rent and rates                 | 102,500          |                  |
| Loan interest                  | 1,200            |                  |
| Trade account payables         |                  | 100,560          |
| Trade account receivables      | 202,800          |                  |
| Irrecoverable debt expense     | 2,560            |                  |
| Irrecoverable debt recovered   |                  | 450              |
| Allowance for receivables      |                  | 7,400            |
| Bank                           | 6,500            |                  |
| Inventory at 1 January 2017    | 80,000           |                  |
| Capital at 1 January 2017      |                  | 200,000          |
| 8% loan note                   |                  | 20,000           |
| Freehold land                  | 80,000           |                  |
| Office equipment               | 5,000            |                  |
| Plant and machinery            | 55,000           |                  |
| Accumulated depreciation:      |                  |                  |
| Office equipment               |                  | 500              |
| Plant and machinery            | <u>11,000</u>    |                  |
|                                | <u>1,575,640</u> | <u>1,575,640</u> |

**The following additional information is relevant for Lubinda for the year ended 31 December 2017:**

- (i) Inventory at 31 December 2017 was valued at its cost of K75,500. However, included in this inventory was some plumbing accessories that had been bought for K5,000 but were scheduled to be sold for K2,000 as they had become obsolete.
- (ii) Rates bill to the value of K620 remained unpaid on 31 December 2017.
- (iii) A further debt of K520 is to be written off the receivables on 31 December 2017 and an allowance for receivables to be adjusted to 5% of remaining receivables'.

- (iv) Depreciation on non-current assets is to be provided as follows:
- Office equipment 5% on cost.  
Plant and machinery 10% on cost.
- (v) There was an unsettled invoice for general expenses to the value of K230.
- (vi) Lubinda sells some plumbing accessories through a fellow sole trader on condition of a commission payment based on the value of goods sold. On 31 December 2017, the agent had been paid commission for three months to 31 March 2018 amounting to K15,000.

**Required:**

Prepare for Lubinda:

- (a) A statement of profit or loss for the year ended 31 December 2017. (12 marks)
- (b) A statement of financial position as at 31 December 2017. (8 marks)

**[Total: 20 Marks]**

**QUESTION THREE**

- (a) Define elements of financial statements according to the conceptual framework. (10 marks)
- (b) Distinguish between capital reserve and revenue reserve, giving two examples of each. (4 marks)
- (c) You have been provided with the following list of balances of Que Ltd from which you are required to extract a trial balance as at 31 December 2017.

|                     | K'000 |
|---------------------|-------|
| Share capital       | 275   |
| 10% debenture       | 300   |
| Revaluation reserve | 190   |
| Purchases           | 540   |
| Sales               | 890   |
| Returns out         | 60    |
| Returns in          | 85    |
| Carriage in         | 120   |
| Carriage out        | 200   |
| Rent receivable     | 30    |

|                     |       |
|---------------------|-------|
| Specific reserve    | 210   |
| Bank overdraft      | 910   |
| Payables control    | 600   |
| Receivables control | 850   |
| Computers           | 1,400 |
| Drawings of goods   | 270   |

**Required:**

Prepare the Trial balance using the information provided above. (6 marks)  
**[Total: 20 Marks]**

**QUESTION FOUR**

You have just been employed as Treasurer of Mikomfwa Rotary club of Luanshya. In the recent past, there have been rumours of mismanagement of club resources in which the previous Treasurer has been cited and the club director has presented you with the following information for the year ended 31 December 2017 to use to construct some statements from.

|                           |                  |
|---------------------------|------------------|
| <b>Receipts</b>           | K                |
| Donations                 | 9,000            |
| Entry fee for new members | 280              |
| Subscription              | 5,960            |
| Ticket sales              | to be determined |

|                         |        |
|-------------------------|--------|
| <b>Payments</b>         |        |
| Ticket payables         | 14,240 |
| Club house keeper wages | 6,000  |
| Ticket sales commission | 920    |
| Club house maintenance  | 1,040  |
| General expenses        | 460    |
| Secretarial expenses    | 540    |
| Electricity             | 900    |
| Insurance               | 340    |
| Lawn mower              | 8,000  |

Additionally, the following information relates to the club as at:

|             |            |   |   |
|-------------|------------|---|---|
| 31 Dec 2017 | 1 Jan 2017 |   |   |
|             |            | K | K |



|  |                  |       |
|--|------------------|-------|
| Subscriptions owing                      | -                | 280   |
| Inventory of tickets                     | 2,240            | 1,960 |
| Insurance prepaid                        | 240              | -     |
| Bank                                     | to be determined | 2,520 |
| Payables for ticket supplies             | 1,320            | 1,180 |
| Entertainment equipment<br>(Cost K3,200) | to be determined | 2,880 |

Further, the club Director was able to provide you with the following data he extracted from the office of the previous Treasurer who was relieved of his duties prior to your recruitment:

- (i) Club had office equipment with a carrying amount of K30,000 on 1 January 2017 which were to be depreciated at 10% on this carrying value.
- (ii) The subscription received includes K280 for year ending 31 December 2017 and K180 for year ending 31 December 2018.
- (iii) Sales commission was 5% of sales of dance tickets which were all on cash basis.
- (iv) Club entertainment equipment had been bought on 1 January 2016 and being depreciated at 10% reducing balance and lawnmower had been bought on 1 July 2017 and is depreciated at 20% straight line method.

**Required:**

- (a) Calculate accumulated fund for Mikomfwa Rotary club at 1 January 2017. (3 marks)
- (b) Prepare a profit or loss account for the dance competition for year ending 31 December 2017. (3 marks)
- (c) Prepare the income and expenditure account for Mikomfwa Rotary Club for the year ending 31 December 2017. (9 marks)
- (d) Draft a statement of financial position of Mikomfwa Rotary Club as at 31 December 2017. (5 marks)

**[Total: 20 Marks]**

## **QUESTION FIVE**

The following is the trial balance for Mukata PLC as at 31 May 2018:

|  | Dr            | Cr            |
|--|---------------|---------------|
|  | K             | K             |
| Inventory at 1 June 21018                | 4,800         |               |
| Bank                                     |               | 600           |
| Non current asset replacement reserve    |               | 800           |
| Carriage cost                            | 2,160         |               |
| Returns                                  | 600           | 640           |
| Discounts                                | 400           | 480           |
| Purchases                                | 20,800        |               |
| Trade payables                           |               | 4,360         |
| Trade receivables                        | 7,200         |               |
| Land at cost                             | 3,200         |               |
| Buildings (cost K6,400)                  | 5,440         |               |
| Plant (cost K11,200)                     | 9,600         |               |
| 8% loan note                             |               | 6,400         |
| Insurance                                | 400           |               |
| Wages                                    | 2,600         |               |
| Electricity                              | 680           |               |
| Directors remuneration                   | 800           |               |
| Audit fees                               | 200           |               |
| Revenue                                  |               | 34,960        |
| 7% preference shares K1                  |               | 2,400         |
| Ordinary shares of K1                    |               | 5,600         |
| Share premium                            |               | 1,600         |
| Retained earnings                        |               | 640           |
| Allowance for receivables at 1 June 2017 | <u>400</u>    |               |
|  | <u>58,880</u> | <u>58,880</u> |

**The following additional information is relevant for Mukata Plc. For the year under review:**

- (i) Inventory at 31 May 2018 is valued at K3,600.
- (ii) 20% of carriage cost relates to carriage inwards.
- (iii) No interest on loan notes was paid during the year.
- (iv) Insurance amounting to K80 has been prepaid.
- (v) Depreciation on non-current assets is to be provided for as follows:
  - Buildings – 10% per annum on cost
  - Plant – 20% per annum on reducing balance basis.
- (vi) Income tax provision for the year has been estimated at K320.
- (vii) Directors wish to transfer K240 to a non-current asset replacement reserve.
- (viii) Before the year end the Directors declared that preference dividends for the year be paid. They also declared that ordinary share dividends of K0.05 per share be paid.
- (ix) Allowance for receivables to be adjusted to 5% of receivables at 31 May 2018.

**Required:**

Prepare the following statements for Mukata Plc. for internal use:

- (a) The statement of profit or loss for the year ended 31 May 2018. (13 marks)
- (b) The statement of financial position as at 31 May 2018. (7 marks)

**[Total: 20 Marks]**

**QUESTION SIX**

- (a) The following extract is from the cashbook of Mundia, a sole trader for the month of March, 2017 and shows the company's bank transactions:

| Cashbook (bank column only) |               |                     |               |
|-----------------------------|---------------|---------------------|---------------|
|                             | 'K'           |                     | 'K'           |
| 1/3/17 Balance b/f          | 27,501        | 14/3/17 payable     | 4,176         |
| 10/3/17 Receivable          | 12,069        | 16/3/17 Income tax  | 7,839         |
| 20/3/17 Sales               | 6,582         | 19/3/17 Sales tax   | 2,943         |
| 27/3/17 Receivable          | 21,747        | 19/3/17 payable     | 9,870         |
|                             | _____         | 31/3/17 Balance c/d | <u>43,071</u> |
|                             | <u>67,899</u> |                     | <u>67,899</u> |

Mundia's bank statement for March was received on 2 April and shows the following:

Bank statement for month of March 2017

| Date    | Details                | Debit | credit | balance |
|---------|------------------------|-------|--------|---------|
| 1/3/17  | Opening balance        |       |        | 22,935  |
| 1/3/17  | Lodgements 212         |       | 7,473  | 30,408  |
| 2/3/17  | Cheque 148             | 2,907 |        | 27,501  |
| 10/3/17 | Insurance Direct Debit | 7,239 |        | 20,262  |
| 14/3/17 | Lodgements 200         |       | 12,069 | 32,331  |
| 16/3/17 | Cheque 152             | 4,176 |        | 28,155  |
| 18/3/17 | Cheque 154             | 7,839 |        | 20,316  |
| 20/3/17 | Cheque 156             | 9,870 |        | 10,446  |
| 24/3/17 | Lodgement 218          |       | 6,582  | 17,028  |
| 30/3/17 | Bank charges           | 1,689 |        | 15,339  |

You have been informed that although cheque numbers 212 and 148 appear on the bank statement now, they were passed through the cash book in the month of February 2017.

**Required:**

- (i) A reconciliation of the opening balances so as to bring them into line as at 1 March 2017. (2 marks)
  - (ii) An adjusted cashbook for Mundia as at 31 March 2017. (3 marks)
  - (iii) A reconciliation statement of the balance per bank statement to the balance per adjusted cash book as at 31 March 2017. (3 marks)
- (b) In addition to the errors and omissions that affected Mundia's bank account and statement, a closer look at the company's other ledger accounts reviewed the following errors had been committed:
1. A cash discount of K625 allowed by Mukuni, Mundia's supplier had not been entered in the payables control account.
  2. The proprietor, Mundia made drawings of cash of K3,500 for private use during March but this had been debited to wages and salaries account.
  3. The total of the purchases day book of K813,575 had been posted to the purchases account as K813,755.

4. The purchase of a motor van had been entered in a motor van account as K86,345 instead of K86,534.
5. A loan from the bank of K74,200 had been entered on the credit side of the capital account.

**Required:**

- (i) Prepare journal entries required to correct all of the above errors.  
(Narrations are not required) (10 marks)
- (ii) Post the correcting entries to the suspense account to determine the difference that arose in trial balance as a result of errors (i) to (v) above.  
(2 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## **DA 1 SUGGESTED SOLUTIONS**

### **SECTION A**

#### **SOLUTION ONE**

- 1.1. C
- 1.2. B
- 1.3. C
- 1.4. D
- 1.5. D
- 1.6. C
- 1.7. B
- 1.8. B
- 1.9. B
- 1.10. A

## SECTION B

### SOLUTION TWO

a) Lubinda's statement of profit or loss for the year ended 31 December 2017

|                                    | 'K'             | 'K'              |
|------------------------------------|-----------------|------------------|
| Sales                              |                 | 1,233,000        |
| Less returns inwards               |                 | <u>(1,860)</u>   |
| Turnover                           |                 | 1,231,140        |
| <u>Less cost of sales:</u>         |                 |                  |
| Opening inventory                  | 80,000          |                  |
| Purchases                          | 862,020         |                  |
| Less returns out                   | (1,350)         |                  |
| Closing inventory(75,500-3,000)    | <u>(72,500)</u> | <u>(868,170)</u> |
| Gross profit                       |                 | 362,970          |
| Discount received                  |                 | <u>1,380</u>     |
| Total income                       |                 | 364,350          |
| <u>LESS EXPENSES</u>               |                 |                  |
| Discounts allowed                  | 480             |                  |
| General expenses (40,000 +230)     | 40,230          |                  |
| Wages and salaries                 | 60,260          |                  |
| Printing and stationery            | 16,800          |                  |
| Commission payable (35,000-15,000) | 20,000          |                  |
| Rent and rates( 102,500 +620)      | 103,120         |                  |
| Loan interest (8% x 20,000)        | 1,600           |                  |
| Irrecoverable debt expense (w1)    | 5,344           |                  |
| Depreciation expense:              |                 |                  |
| Office equip. (5% x 5,000)         | 250             |                  |
| Plant and machinery (10% x 55,000) | <u>5,500</u>    |                  |
| Total expenses                     |                 | <u>(253,584)</u> |

Net profit 110,766

b)

Lubinda's statement of financial position as at 31 December 2017

| <b>Non current assets</b> | cost           | accumulated<br>dep'n amount | carrying      |
|---------------------------|----------------|-----------------------------|---------------|
|                           | 'K'            | 'K'                         | 'K'           |
| Land                      | 80,000         | ---                         | 80,000        |
| Office equipment          | 5,000          | (750)                       | 4,250         |
| Plant and machinery       | <u>55,000</u>  | <u>(16,500)</u>             | <u>38,500</u> |
|                           | <u>140,000</u> | <u>(17,250)</u>             | 122,750       |

**Current assets**

|                                    |               |                |
|------------------------------------|---------------|----------------|
| Inventory                          | 72,500        |                |
| Receivables (202,800-520-10114)    | 192,166       |                |
| Bank                               | 6,500         |                |
| VAT recoverable                    | 6,160         |                |
| Commission payable paid in advance | <u>15,000</u> |                |
| Total current asset                |               | <u>292,326</u> |
| Total assets                       |               | 415,076        |

**Capital and liabilities**

|                  |                 |
|------------------|-----------------|
| Capital at start | 200,000         |
| Add net profit   | 110,766         |
| Less drawings    | <u>(17,500)</u> |
| Capital at end   | 293,266         |

**Non current liabilities**

|              |        |
|--------------|--------|
| 8% loan note | 20,000 |
|--------------|--------|

**Current liabilities**

|                |         |
|----------------|---------|
| Trade payables | 100,560 |
| Rates payable  | 620     |



|                               |            |                |
|-------------------------------|------------|----------------|
| General expenses payable      | 230        |                |
| Interest owing                | <u>400</u> |                |
|                               |            | <u>101,810</u> |
| Total capital and liabilities |            | <u>415,076</u> |

### **Working**

1) Irrecoverable debt expense:

|                                |              |
|--------------------------------|--------------|
| Written of during the year     | 2,560        |
| Recovered                      | (450)        |
| Written off at year end        | 520          |
| Increase in allowance as below | <u>2,714</u> |
| Total expense                  | <u>5,344</u> |

Increase/decrease in allowance for receivables

|  |               |
|--|---------------|
| Opening allowance                      | 7,400         |
| Increase in allowance                  | <u>2,714</u>  |
| Closing allowance (5% x [202,800-520]) | <u>10,114</u> |

## **SOLUTION THREE**

a)

### **Asset**

A resource controlled by an entity as a result of past events from which future economic benefits are expected to be generated, e.g inventory, machinery.

### **Liability**

An entity's obligation to transfer economic benefits as a result of past transaction or events. e.g loan, trade payables etc.

### **Income**

This is the inflows of economic benefits to the business entity during an accounting period, e.g sales revenue on sale of goods or rendering services.

### **Expense**

The outflows of economic benefits during an accounting period. This may include purchase of goods for resale or incurring costs such as wages, electricity, water and telephone charges.

### **Capital**

It is a special kind of liability that represents net amount invested in the business by the owner. It may be cash, other assets or through settlement by owner of the business expenses.

- b) Capital reserve arises from book-keeping transactions of selling shares for more than their nominal price and revaluing non current assets. Examples are share premium, revaluation reserve and share redemption reserve.

Capital reserves may not be distributed as dividends in future but used to meet formation expenses or make bonus issue.

Revenue reserves on the other hand are accumulated and undistributed profits of a corporate entity. Examples are retained earnings, general reserve or specific reserve.

Revenue reserves may be used for payment of dividends when directors so wish.

**c) Trial balance of Que Ltd. as at 31 December 2017**

|                     | <b>K</b>     | <b>K</b>     |
|---------------------|--------------|--------------|
| Share capital       |              | 275          |
| 10% debenture       |              | 300          |
| Revaluation reserve |              | 190          |
| Purchases           | 540          |              |
| Sales               |              | 890          |
| Returns out         |              | 60           |
| Returns in          | 85           |              |
| Carriage in         | 120          |              |
| Carriage out        | 200          |              |
| Rent receivable     |              | 30           |
| Specific reserve    |              | 210          |
| Bank overdraft      |              | 910          |
| Trade Payables      |              | 600          |
| Trade receivables   | 850          |              |
| Computers           | 1,400        |              |
| Drawings            | <u>270</u>   | <u>-----</u> |
|                     | <u>3,465</u> | <u>3,465</u> |

## SOLUTION FOUR

- a) Calculations for Mikomfwa Rotary Club  
Accumulated fund

| <b>Assets</b>             | <b>'K'</b> |
|---------------------------|------------|
| Office equipment          | 30, 000    |
| Club entailment equipment | 2,880      |
| Bank                      | 2,520      |
| Inventory                 | 1,960      |
| Subscription owing        | <u>280</u> |
|                           | 37, 640    |

| <b>Liabilities</b>          |                |
|-----------------------------|----------------|
| Payables                    | <u>(1180)</u>  |
| Accumulated fund (bal. fig) | <u>36, 460</u> |

- b) Dance ticket sales Profit or loss account for the year ended 31 December 2017

|                                    | <b>'K'</b>     | <b>'K'</b>   |
|------------------------------------|----------------|--------------|
| Sales (100/5 x 920)                |                | 18, 400      |
| Less cost of sales:                |                |              |
| Opening inventory                  | 1960           |              |
| Purchases                          | 14, 380        |              |
| Closing inventory                  | <u>(2240)</u>  |              |
|                                    | <u>14, 100</u> |              |
| Gross profit                       |                | 4,300        |
| Commission                         |                | <u>(920)</u> |
| Net profit from dance ticket sales | <u>3,380</u>   |              |

- c) Mikomfwa Rotary club Income and expenditure account for the year ending  
31December 2017

|                            | <b>'K'</b> | <b>'K'</b> |
|----------------------------|------------|------------|
| <b>Income:</b>             |            |            |
| Donations                  |            | 9,000      |
| Subscriptions              |            | 5,500      |
| Profit from ticket trading |            | 3,380      |
| Entry fee for new members  |            | <u>280</u> |
| Total income               |            | 18,160     |
| <b>Expenditure:</b>        |            |            |

|                                   |       |                 |
|-----------------------------------|-------|-----------------|
| Wages                             | 6,000 |                 |
| Club maintenance costs            | 1,040 |                 |
| Insurance (340-240)               | 100   |                 |
| Electricity                       | 900   |                 |
| Secretarial expenses              | 540   |                 |
| General expenses                  | 460   |                 |
| Depreciation:                     |       |                 |
| Office equip (10% x 30,000)       | 3,000 |                 |
| Ente. Equip. (10% x 2,880)        | 288   |                 |
| Lawnmower (20% x 8,000 x 6/12)    | 800   |                 |
| Total expenditure                 |       | <u>(13,128)</u> |
| Excess of income over expenditure |       | <u>5,032</u>    |

d) Mikomfwa Rotary club statement of financial position as at 31 December 2017

|                         | Cost          | accumulated<br>Depreciation | carrying<br>amount |
|-------------------------|---------------|-----------------------------|--------------------|
|                         | 'K            | 'K'                         | 'K'                |
| Non current liabilities |               |                             |                    |
| Office equipment        | 30,000        | (3,000)                     | 27,000             |
| Entertainment equipment | 3,200         | (608)                       | 2,592              |
| Lawnmower               | <u>8,000</u>  | <u>(800)</u>                | <u>7,200</u>       |
|                         | <u>42,100</u> | <u>4,408</u>                | 36,792             |
| <b>Current assets</b>   |               |                             |                    |
| Inventory of tickets    |               | 2,240                       |                    |
| Cash/bank (w2)          |               | 3,720                       |                    |
| Insurance prepaid       |               | <u>240</u>                  |                    |
|                         |               |                             | <u>6,200</u>       |
| Total assets            |               |                             | <u>42,992</u>      |

**Accumulated fund and liabilities**

|                               |              |
|-------------------------------|--------------|
| Accumulated fund (answer [a]) | 36,460       |
| Surplus (answer [b])          | <u>5,032</u> |
| Net accumulated fund          | 41,492       |

**Current liabilities**

|  |            |                      |
|--|------------|----------------------|
| Dance Ticket payables                  | 1,320      |                      |
| Subscriptions prepaid                  | <u>180</u> |                      |
| Total current liabilities              |            | <u>1,500</u>         |
| Total accumulated fund and liabilities |            | <u><u>42,992</u></u> |

**Workings**

**1.**

|                       |               |
|-----------------------|---------------|
| Payables control      |               |
| Closing payables      | 1,320         |
| Plus payments         | 14, 240       |
| Less opening payables | <u>(1180)</u> |
| Purchases             | <u>14,380</u> |

**2.**

| Cash/Bank account  |               |                      |               |
|--------------------|---------------|----------------------|---------------|
|                    | K             |                      | K             |
| Balance b/f        | 2,520         | payables             | 14,240        |
| Donations          | 9,000         | wages                | 6,000         |
| Entry fee          | 280           | commission           | 920           |
| Subscriptions rcvd | 5,960         | maintenance costs    | 1,040         |
| Ticket sales       | 18,400        | secretarial expenses | 540           |
|                    |               | General expenses     | 460           |
|                    |               | Electricity costs    | 900           |
|                    |               | Insurance            | 340           |
|                    |               | Lawnmower            | 8,000         |
|                    | -----         | Balance c/d          | <u>3,720</u>  |
|                    | <u>36,160</u> |                      | <u>36,160</u> |

Balance b/d            3,720

3. Subscriptions to income and expenditure account:

| Subscription account |              |      |              |
|----------------------|--------------|------|--------------|
|                      | 'K'          |      | 'K'          |
| Owing b/f            | 280          |      |              |
| I/E (bal. fig.)      | 5,500        | Bank | 5,960        |
| Prepaid c/f          | <u>180</u>   |      | <u>-----</u> |
|                      | <u>5,960</u> |      | <u>5,960</u> |

## SOLUTION FIVE

### a) Mukata Plc. Statement of profit or loss for the year ended 31 May 2018

|                                       | 'K'            | 'K'             |
|---------------------------------------|----------------|-----------------|
| Sales                                 |                | 34,960          |
| Less returns inwards                  |                | <u>(600)</u>    |
| Turnover                              |                | 34,360          |
| Less cost of sales:                   |                |                 |
| Opening inventory                     | 4,800          |                 |
| Purchases                             | 20,800         |                 |
| Less returns out                      | (640)          |                 |
| Add carriage inwards (20% x 2,160)    | 432            |                 |
| Less closing inventory                | <u>(3,600)</u> | <u>(21,792)</u> |
| Gross profit                          |                | 12,568          |
| Add discounts received                |                | <u>480</u>      |
| Total income                          |                | 13,048          |
| Less expenses                         |                |                 |
| Discounts allowed                     | 400            |                 |
| Carriage outwards                     | 1,728          |                 |
| Insurance (400-80)                    | 320            |                 |
| Electricity                           | 680            |                 |
| Wages                                 | 2,600          |                 |
| Directors remuneration                | 800            |                 |
| Audit fees                            | 200            |                 |
| Irrecoverable debt expense            | (40)           |                 |
| Depreciation: Buildings (10% x 6,400) | 640            |                 |
| Plant (20% x 9,600)                   | 1,920          |                 |
| Loan interest accrued (8% x 6,400)    | <u>512</u>     |                 |
| Total expenses                        |                | <u>(9,760)</u>  |
| Profit before tax                     |                | 3,288           |
| Less income tax                       |                | <u>(320)</u>    |
| Profit for the year                   |                | 2,968           |
| Less transfer to Non Current Asset    |                |                 |
| Replacement reserve                   | (240)          |                 |
| Preference dividends declared         | (168)          |                 |
| Ordinary dividends declared           | <u>(280)</u>   | <u>(688)</u>    |
| Retained profit                       |                | <u>2,280</u>    |
| Working                               |                |                 |
| 1. Allowance for receivables at start | 400            |                 |
| Movement                              | <u>(40)</u>    |                 |
| Allowance for receivables at end      | <u>360</u>     |                 |
| (5% x 7,200)                          |                |                 |

### b) Mukata Plc's statement of financial position as at 31 May 2018

| Cost | accumulated<br>Depreciation | carrying<br>amount |
|------|-----------------------------|--------------------|
|------|-----------------------------|--------------------|



| <b>Non current assets :</b> | 'K'           | 'K'            | 'K'          |
|-----------------------------|---------------|----------------|--------------|
| Land                        | 3,200         | --             | 3,200        |
| Buildings                   | 6,400         | (1,600)        | 4,800        |
| Plant                       | <u>11,200</u> | <u>(3,520)</u> | <u>7,680</u> |
|                             | <u>20,800</u> | <u>5,120</u>   | 15,680       |

**Current assets:**

|                           |           |               |
|---------------------------|-----------|---------------|
| Inventory                 | 3,600     |               |
| Receivables (7,200-3,600) | 6,840     |               |
| Insurance prepaid         | <u>80</u> | <u>10,520</u> |
| Total assets              |           | <u>26,200</u> |

**Equity and liabilities:**

|   |              |
|---|--------------|
| Share capital                                     | 5,600        |
| 7% preference share capital                       | 2,400        |
| Share premium                                     | 1,600        |
| Non current asset replacement reserve (800 + 240) | 1,040        |
| Retained earnings (640 + 2,280)                   | <u>2,920</u> |
| Total equity                                      | 13,560       |

**Non current liabilities:**

|              |       |
|--------------|-------|
| 8% loan note | 6,400 |
|--------------|-------|

**Current liabilities**

|                              |               |
|------------------------------|---------------|
| Trade payables               | 4,360         |
| Tax payable                  | 320           |
| Dividends payable            | 448           |
| Loan interest payable        | 512           |
| Bank overdraft               | <u>600</u>    |
| Total current liabilities    | <u>6,240</u>  |
| Total equity and liabilities | <u>26,200</u> |

## SOLUTION SIX

a)

i) Mundia's reconciliation of opening balances as at 1 February 2018

|                                     | 'K'            |
|-------------------------------------|----------------|
| Opening balance per cash book       | 27,501         |
| Add cheque 148 (unpresented cheque) | 2,907          |
| Less cheque 212 (uncredited cheque) | <u>(7,473)</u> |
| Opening balance per bank statement  | <u>22,935</u>  |

ii) Mundia's adjusted cashbook at 28 February 2018

|             | 'K''          |                  | 'K'           |
|-------------|---------------|------------------|---------------|
| Balance b/f | 43,071        | direct debit     | 7,239         |
|             |               | Interest charges | 1,689         |
|             | -----         | Balance c/d      | <u>34,143</u> |
|             | <u>43,071</u> |                  | <u>43,071</u> |
| Balance b/d | 34,143        |                  |               |

iii) Mundia's reconciliation of Bank statement balance to adjusted cashbook balance.

|                               | 'K'            |
|-------------------------------|----------------|
| Balance per bank statement    | 15,339         |
| Add uncredited cheques        | 21,747         |
| Less unpresented cheques      | <u>(2,943)</u> |
| Balance per adjusted cashbook | <u>34,143</u>  |

### b) JOURNAL ENTRIES

|    | DETAILS                  | DEBIT  | CREDIT |
|----|--------------------------|--------|--------|
| Dr | Payables control account | 625    |        |
| Cr | Suspense                 |        | 625    |
| Dr | Drawings                 | 3,500  |        |
| Cr | Wages and salaries       |        | 3,500  |
| Dr | Suspense                 | 180    |        |
| Cr | Purchases                |        | 180    |
| Dr | Motor vans               | 189    |        |
| Cr | Suspense                 |        | 189    |
| Dr | Capital                  | 74,200 |        |
| Cr | Loan                     |        | 74,200 |

Suspense account

---

|                             | 'K'        |           | 'K'        |
|-----------------------------|------------|-----------|------------|
| Purchases                   | 180        | payables  | 625        |
| Difference in trial balance | <u>634</u> | Motor van | <u>189</u> |
|                             | <u>814</u> |           | <u>814</u> |



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA 2: QUANTITATIVE ANALYSIS

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WEDNESDAY 11 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question. You will be told when to start writing.
2. This paper is divided into TWO sections:  
Section A: One (1) Compulsory question.  
Section B: Five (5) Optional Questions. Attempt any 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 mathematical/statistical formulae book **MUST** be provided to you. **Request for one if not given by the Invigilators.**

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

## SECTION A – (Compulsory)

Attempt all ten (10) multiple choice questions

### QUESTION ONE

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

- 1.1 The ranks of three students in a test in two subjects Maths(X) and R.E(Y) are given in the table below :

|       |   |   |   |
|-------|---|---|---|
| MATHS | 1 | 3 | 2 |
| RE    | 2 | 1 | 3 |

The Rank correlation coefficient of the test is:

- A. 0.5
- B. -0.2
- C. -0.5
- D. 0.2

(2 marks)

- 1.2 If a single sum of K12, 000 is invested at 8 percent per annum with interest compounded quarterly, the amount to which the principal will have grown by the end of the year three is approximately?

- A. K15, 117
- B. K14, 880
- C. K15, 880
- D. K15, 219

(2 marks)

- 1.3 The probability values of event A and event B are given as follows  $P(A) = 0.8$ ,  $P(B)=0.5$  And  $P(A \cap B) = 0.7$ . The probability value of event A or event B is :

- A. 0.7
- B. 0.6
- C. 0.5
- D. 0.8

(2 marks)

- 1.4 With which component of a time series would you associate the global economic recession?
- A. Random
  - B. Trend
  - C. Cyclical variation
  - D. Seasonal variation
- (2 marks)
- 1.5 What measure of central tendency would you use if your data set included an extreme value:
- A. Mode
  - B. Median
  - C. Mean
  - D. Mean deviation
- (2 marks)
- 1.6 Which of the following is true of the internal rate of return (IRR)?
- A. The IRR is the current cost of borrowing.
  - B. The IRR is the discount rate.
  - C. The IRR is the discount rate for which net present value is zero.
  - D. All other things being equal, a project with a low IRR will always be preferable to one with a high IRR.
- (2 marks)
- 1.7 A decision tree is:
- A. A diagrammatical way of applying expected value criterion to situations where a number of decisions are made sequentially.
  - B. A random outcome point diagram.
  - C. a statistical device used purely for retailers
  - D. None of the above
- (2 marks)
- 1.8 The average number of errors on a page is 2. The probability of 2 errors on a page is:
- A. 0.5412
  - B. 0.1353
  - C. 0.0677
  - D. 0.2706
- (2 marks)

- 1.9 Two management accountants ranked the credit-worthiness of seven companies as follows.

|     | H | I | J | K | L | M | N |
|-----|---|---|---|---|---|---|---|
| MA1 | 2 | 4 | 6 | 1 | 5 | 3 | 7 |
| MA2 | 4 | 3 | 5 | 2 | 6 | 1 | 7 |

The Spearman's coefficient of rank correlation is closest to:

- A. -0.79
- B. -0.14
- C. 0
- D. 0.79

(2 marks)

- 1.10 The distribution of bottles of new drink called Nuya manufactured by Mbeza company in Yayi province is shown in the table below:

|                   |    |    |    |
|-------------------|----|----|----|
| CONTENT (Liters)  | 70 | 80 | 90 |
| NUMBER OF BOTTLES | 8  | 7  | 5  |

The average volume of the Nuya drink is:

- A. 523.3 litres
- B. 80 litres
- C. 78.5 litres
- D. 12 litres

(2 marks)

**[Total: 20 Marks]**

## SECTION B

There are FIVE (5) questions in this section. Attempt any FOUR (4) questions.

### QUESTION TWO

Trade Kings Ltd wants to know if the money they spend on advertising is effective in creating sales. The following data has been collected.

| Year | Advertising (K'000) | Sales (K'000) |
|------|---------------------|---------------|
| 2009 | 3                   | 40            |
| 2010 | 3                   | 60            |
| 2011 | 5                   | 100           |
| 2012 | 4                   | 80            |
| 2013 | 6                   | 90            |
| 2014 | 7                   | 110           |
| 2015 | 7                   | 120           |
| 2016 | 8                   | 130           |

#### Required:

- (a) Calculate the Pearson's correlation coefficient. (9 marks)
- (b) Calculate the coefficient of determination. (2 marks)
- (c) Calculate the least squares regression equation. (7 marks)
- (d) State one main disadvantage of using regression analysis. (2 marks)

**[Total: 20 Marks]**



### **QUESTION THREE**

- (a) A company manufactures two products X and Y using two materials A and B. Each product X consumes 9 units of material A and each product Y consumes 8 units of material A. Similarly, each product X consumes 1 unit of material B and each product Y consumes 2 units of material B. The maximum units available of material A are 360 and material B are 60. The profit value of each product X is K40 and each product Y is K30.

**Required:**

- (i) Construct an objective function. (2 marks)
  - (ii) Develop constraint functions to maximize the objective function. (6 marks)
  - (iii) Draw the graph of the constraint functions and indicate the feasible region. (6 marks)
  - (iv) How many products must be produced to maximize the profit? (1 mark)
  - (v) Find the profit. (1 mark)
- (b) JC Company got loan of K500,000 payable in 5 years at 6% interest compounded annually.

**Required:**

Calculate the annuity to amortize the loan. (4 marks)

**[Total: 20 Marks]**

### **QUESTION FOUR**

- (a) James and Mary have been invited to attend an interview for two vacancies in the same post. The probability of James being selected is 0.5 while that of Mary is 0.1. Find the probability that:
- (i) Both will be selected (2 marks)
  - (ii) Only one of them will be selected (2 marks)
  - (iii) None of them will be selected (2 marks)

- (b) A manager has to choose between mutually exclusive projects X, Y and Z. The cash flows of each project are given as follows:

| Year | Project X | Project Y | Project Z |
|------|-----------|-----------|-----------|
| 0    | (160,000) | (120,000) | (100,000) |
| 1    | 40,000    | 60,000    | 30,000    |
| 2    | 40,000    | 50,000    | 30,000    |
| 3    | 60,000    | 50,000    | 30,000    |
| 4    | 60,000    | 40,000    | 30,000    |
| 5    | 15,000    | (10,000)  | 30,000    |
| 6    | -         | -         | 30,000    |

The company's cost of capital is 14%.

**Required:**

Which project must be selected?

(14 marks)  
**[Total: 20 Marks]**

**QUESTION FIVE**

- (a) The payoff table of three decisions A,B and C with economic conditions of boom and recession are shown in the table below :

**DECISIONS**

| ECONOMIC CONDITIONS | A   | B  | C  |
|---------------------|-----|----|----|
| BOOM                | 100 | 80 | 95 |
| RECESSION           | 60  | 90 | 75 |

**Required:**

Determine:

- (i) Maximax rule decision. (4 marks)  
(ii) Maximini rule decision (4 marks)  
(iii) Minimax regret rule decision (5 marks)

- (b) Mrs Phiri deposited K90 in a bank offering interest compounded semi-annually for 9 years to get an amount of K140.37.

**Required:**

Calculate:

- (i) Interest rate. (4 marks)  
(ii) Effective interest rate. (3 marks)

**[Total: 20 Marks]**

**QUESTION SIX**

- (a) The Zambia Daily Mail has bought a printing machine worth K20 million with the cost of capital of 5 percent. The following are running costs and resale values over its three (3) year economic life:

|                          | <b>Year1</b> | <b>Year2</b> | <b>Year3</b> |
|--------------------------|--------------|--------------|--------------|
|                          | K'000        | K'000        | K'000        |
| Running costs            | 9,000        | 10,500       | 11,900       |
| End of year resale value | 14,000       | 11,500       | 8,400        |

**Required:**

Assess how often the machine should be replaced. (9 marks)

- (b) It was observed that 15 of the 20 soccer fans are males. A sample of four (4) soccer fans is selected at random.

**Required:**

- (i) Calculate the probability that a soccer fan selected is male. (2 marks)  
(ii) Find the probability that at least one soccer fan selected is female. (4 marks)

- (c) A student deposited K160,000 in a bank offering 3% interest compounded monthly and obtained K185,856.

**Required:**

Calculate the time the money was kept in the bank. (5 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## DA2 SOLUTIONS

### SECTION A

#### SOLUTION ONE

##### 1.1. C

| $R_x R_y$ | $R_x - R_y = d$ | $d^2$ |
|-----------|-----------------|-------|
| 1 2       | 1 - 2 = -1      | 1     |
| 3 1       | 3 - 1 = 2       | 4     |
| 2 3       | 2 - 3 = -1      | 1     |

Sum = 6

$$r = 1 - \frac{6\sum d^2}{n(n^2-1)} = 1 - \frac{6 \times 6}{3(3^2-1)} = 1 - \frac{36}{24} = 1 - 1.5 = -0.5$$

**1.2. D** Three years is equal to twelve quarters, at an interest rate of 2% per quarter. The principal will have grown to  $K12,000 \times 1.02^{12} = K15,219$ .

**1.3 BP**  $P(A \text{ or } B) = P(A) + P(B) - P(A \cap B)$

$$0.8 + 0.5 - 0.7 = 0.6$$

**1.4C**

**1.5B**

**1.6C**

**1.7A**

**1.8 D**  $P(x=2) = \frac{2^2 e^{-2}}{2!} = 4(0.1353)/2 = 0.2706$

| <b>1.9D</b> | <b>Ma1</b> | <b>Ma2</b> | <b>d</b> | <b>d<sup>2</sup></b>                       |
|-------------|------------|------------|----------|--|
|             | 2          | 4          | -2       | 4  |
|             | 4          | 3          | 1        | 1  |
|             | 6          | 5          | 1        | 1  |
|             | 1          | 2          | -1       | 1  |
|             | 5          | 6          | -1       | 1  |
|             | 3          | 1          | 2        | 4  |
|             | 7          | 7          | 0        | 0  |
|             |            |            |          | <u><u><math>\Sigma d^2 = 12</math></u></u> |

$$R = 1 - \frac{6\sum d^2}{n(n^2-1)} = 1 - \frac{6 \times 12}{7(49-1)} = 0.79$$

$$n(n^2-1)$$

**1.10 C**

| x | f  | fx |            |
|---|----|----|------------|
|   | 70 | 8  | 560        |
|   | 80 | 7  | 560        |
|   | 90 | 5  | <u>450</u> |

$$\Sigma fx = 1570$$

$$X = 1570/20 = 78.5 \text{ L}$$

**SECTION B**

**SOLUTION TWO**

(a)

| <b>X</b>         | <b>Y</b>          | <b>XY</b>          | <b>X<sup>2</sup></b> | <b>Y<sup>2</sup></b> |
|------------------|-------------------|--------------------|----------------------|----------------------|
| 3                | 40                | 120                | 9                    | 1600                 |
| 3                | 60                | 180                | 9                    | 3600                 |
| 5                | 100               | 500                | 25                   | 10,000               |
| 4                | 80                | 320                | 16                   | 6400                 |
| 6                | 90                | 540                | 36                   | 8100                 |
| 7                | 110               | 770                | 49                   | 12,100               |
| 7                | 120               | 840                | 49                   | 14,400               |
| <u>8</u>         | 130               | 1040               | 64                   | 16,900               |
| <b><u>43</u></b> | <b><u>730</u></b> | <b><u>4310</u></b> | <b><u>257</u></b>    | <b><u>73,100</u></b> |

**$\Sigma X = 43,$      $\Sigma Y = 730$      $\Sigma XY = 4310,$      $\Sigma X^2 = 257$      $\Sigma Y^2 = 73,100, n=8$**

$$\begin{aligned}
 r &= \frac{r = n \sum x y - \sum x \times \sum y}{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]} \\
 &= \frac{8 (43108) - (43) (730)}{\sqrt{[8(257) - (43)^2] [8(73,100) - (730)^2]}} \\
 &= \frac{34,450 - 31,390}{\sqrt{[2056 - 1849][584,800 - 532,900]}} \\
 &= \frac{3090}{\sqrt{[207][51,900]}} \\
 &= \frac{3090}{3,278}
 \end{aligned}$$

= 0.94

(b) Coefficient of determination =  $r^2 = 0.94^2 = 0.88$

(c) The regression line is:  $Y = a + bx$ , where

$$b = \frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2}$$

$$a = \bar{y} - b\bar{x}$$

$$b = \frac{8 \times 4,310 - 43 \times 730}{8 \times 257 - 43^2}$$

$$= \frac{34,480 - 31,390}{2056 - 1849}$$

$$= \frac{3,090}{207}$$

$$= 15$$

$$a = 91.25 - 15 \times 5.375$$

$$= 11$$

Therefore;  **$Y = 11 + 15X$**

(d) This technique assumes that the value of one variable (Y) can be estimated or predicted from the value of one variable (X), but in reality the value of Y might depend on several other variables not just X.

### SOLUTION THREE

|     |  |         |           |    |
|-----|--|---------|-----------|----|
| (a) |  | PRODUCT | MATERIALS |    |
|     |  |         | A         | B  |
|     |  | X       | 9         | 1  |
|     |  | Y       | 8         | 2  |
|     |  | Max     | 360       | 60 |

(i)  $Z = 40x + 30y$

(ii) A:  $9x + 8y \leq 360$

B:  $x + 2y \leq 60$

$X \geq 0$

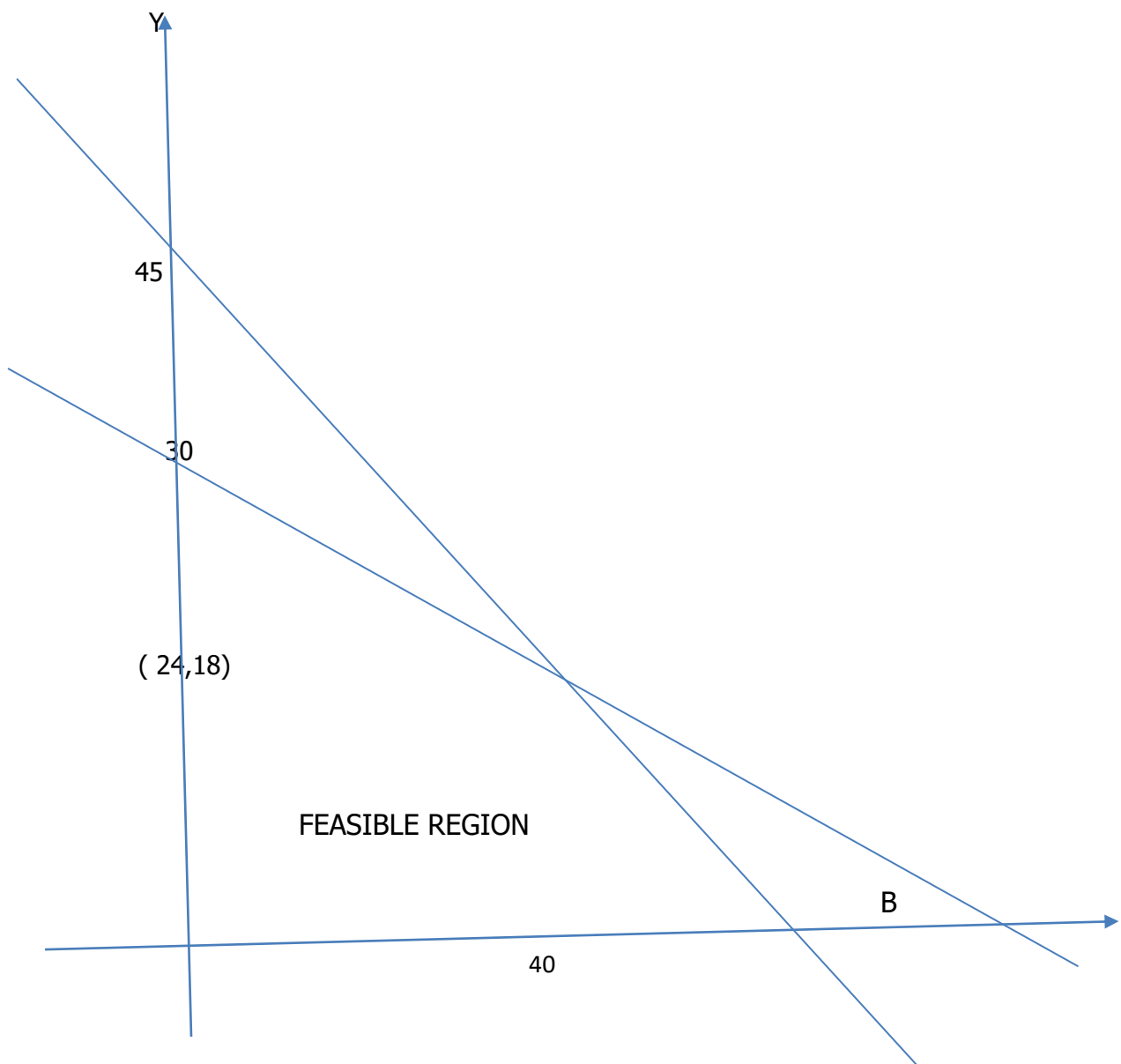
$Y \geq 0$

(iii) A:  $9x + 8y = 360$

$(45,0)$  and  $(0, 40)$

B:  $x + 2y = 60$

$(60,0)$  and  $(0, 30)$





x

40

60

A

(iv)  $X = 24$  and  $Y = 18$

(v)  $Z = 40 \times 24 + 30 \times 18 = 960 + 540 = \text{K}1500$ .

**(b)** 
$$AA = \frac{Pi}{1-(1+i)^{-n}} = \frac{500000 \times 0.06}{1-(1.06)^{-5}} = \frac{30000}{1-0.7473} = \frac{30000}{0.2527} = \text{K } 118715.85$$

**SOLUTION FOUR**

(a) Let James = J, Let Mary = M

$$P(J) = 0.5, P(M) = 0.1, P(\bar{J}) = 0.5, P(\bar{M}) = 0.9$$

(i) P(both will be selected) = P(J is selected AND M is selected)

$$= P(J) \times P(M)$$

$$= 0.5 \times 0.1$$

$$= \mathbf{0.05}$$

(ii) P(only 1 of them will be selected)

$$= P(\text{either J is selected AND M is not OR M is selected and J is not})$$

$$= P(J \times \bar{M}) \text{ or } P(M \times \bar{J})$$

$$= [0.5 \times 0.9] + [0.1 \times 0.5]$$

$$= 0.45 + 0.05$$

$$= \mathbf{0.5}$$

(iii) P(none will be selected) = P(J is not selected AND M is not selected)

$$= \bar{J} \times \bar{M}$$

$$= 0.5 \times 0.9$$

$$= \mathbf{0.45}$$

(b)

| Year     | Project X (K'000) |             |              | Project Y(k'000) |              | Project Z(K'000) |              |
|----------|-------------------|-------------|--------------|------------------|--------------|------------------|--------------|
|          | Cash flow         | DF          | PV           | Cash flow        | PV           | Cash flow        | PV           |
| <b>0</b> | <b>(160)</b>      | <b>1.00</b> | <b>(160)</b> | <b>(120)</b>     | <b>(120)</b> | <b>(100)</b>     | <b>(100)</b> |
| 1        | 40                | 0.877       | 35.08        | 60               | 52.62        | 30               | 26.31        |
| 2        | 40                | 0.769       | 30.76        | 50               | 38.45        | 30               | 23.07        |
| 3        | 60                | 0.675       | 40.50        | 50               | 33.75        | 30               | 20.25        |
| 4        | 60                | 0.592       | 35.52        | 40               | 23.68        | 30               | 17.76        |
| 5        | 15                | 0.519       | 7.785        | (10)             | (5.19)       | 30               | 15.57        |
| 6        |                   | 0.456       |              |                  |              | 30               | 13.68        |

**NPV = (10.355)**

**NPV = 23.310**

**NPV = 16.64**

Both projects Y and Z have a positive NPV and would earn a return in excess of 14%. Since they are mutually exclusive projects, **Project Y must be undertaken because it has a higher NPV than project Z**

**SOLUTION FIVE**

(a) (i)

|      | DECISIONS |    |    |
|------|-----------|----|----|
|      | A         | B  | C  |
| Max  | 100       | 90 | 95 |
| Maxi | 100       |    |    |

Maximax rule decision is A.

(ii)

|      | DECISIONS |    |    |
|------|-----------|----|----|
|      | A         | B  | C  |
| Mini | 60        | 80 | 75 |
| Maxi |           | 80 |    |

Maximini rule decision is B

(iii)

|   | DECISIONS |    |    |
|---|-----------|----|----|
|   | A         | B  | C  |
| B | 0         | 20 | 5  |
| R | 30        | 0  | 15 |

|      | DECISIONS |    |    |
|------|-----------|----|----|
|      | A         | B  | C  |
| Max  | 30        | 20 | 15 |
| Mini |           |    | 15 |

Minimax regret rule decision is C

(b)  $P(1 + i/m)^{mn} = A$   
 $90(1 + i/2)^{2 \times 9} = 140.37$   
 $(1 + i/2)^{18} = 140.37/90$   
 $(1 + i/2)^{18} = 1.56$   
 $(1 + i/2) = \sqrt[18]{1.56}$   
 $1 + i/2 = 1.025$   
 $i/2 = 1.025 - 1 = 0.025$   
 $i/2 = 0.025$   
 $i = 0.025 \times 2$   
 $i = 0.05$   
 $R = 0.05 \times 100 = 5\%$

(ii)  $EIR = [(1 + i/m)^m - 1] 100$   
 $= [(1 + 0.05/2)^2 - 1] 100$   
 $= (1.025)^2 - 1 \times 100$   
 $= 1.05063 - 1 \times 100 = 0.05063 \times 100 = 5.063\%$

## SOLUTION SIX

| (a) | Year | Year1    |          | Year2    |          | Year3    |          |
|-----|------|----------|----------|----------|----------|----------|----------|
|     |      | cash     | Pv       | cash     | pv       | cash     | pv       |
|     | 0    | (20,000) | (20,000) | (20,000) | (20,000) | (20,000) | (20,000) |
|     | 1    | 5,000    | 4,760    | (9,000)  | (8,568)  | (9,000)  | (8,568)  |
|     | 2    | -        | -        | 1,000    | 907      | (10,500) | (9,524)  |
|     | 3    | -        | -        | -        | -        | (3,500)  | (3,024)  |
|     |      | NPV =    | (15,240) |          | (27,661) |          | (41,116) |

Divide the NPVs with the cumulative PV factors of; **(up to 4 marks for the NPVs)**

|                 |                 |                 |                 |
|-----------------|-----------------|-----------------|-----------------|
|                 | 0.952           | 1.859           | 2.723           |
| Annualised NPVs | <b>(16,008)</b> | <b>(14,880)</b> | <b>(15,100)</b> |

The optimum replacement policy is choosing the year with the lowest annualised equivalent absolute NPV. Hence Zambia Daily mail must replace the Printing machine after **2 year** as this gives the lowest equivalent annual cost in absolute terms.

(b)  $P(M) = 15/20 = 3/4 = 0.75$ ,  $n = 4$  (Binomial distribution)

(i)  $P(X=1) = 4C_1 \times 0.75^1 \times 0.25^{3-1} = 0.0469$

(ii)  $P(F) = 1 - 0.75 = 0.25$

$$\begin{aligned}
 P(x \geq 1) &= 1 - P(x=0) \\
 &= 1 - 4C_0 \times 0.25^0 \times 0.75^4 \\
 &= 1 - 0.75^4 \\
 &= \mathbf{0.6836}
 \end{aligned}$$

(c)  $CI = P(1+i/m)^{m \times t}$

$P = 160,000$ ,  $i = 0.03$ ,  $m = 12$ ,  $CI = 185,856$

$$185,856 = 160,000(1+0.03/12)^{12 \times t}$$

$$185,856 = 160,000(1.0025)^{12t}$$

$$185,856/160,000 = 1.0025^{12t}$$

$$1.1616 = 1.0025^{12t}$$

$$\log 1.1616 = 12t \log 1.0025$$

$$12t = \log 1.1616 / \log 1.0025$$

$$12t = 60$$



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA 3: BUSINESS ECONOMICS

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TUESDAY 10 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

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

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

## SECTION A

### Attempt all ten (10) multiple choice questions

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet.

#### **QUESTION ONE**

- 1.1 Pineapple juice is produced and sold by many suppliers. Mapesho Ltd is the sole purchaser of the juice. The company earns supernormal profits by controlling the price they pay for the juice.

Which one of the following terms best describes the market Mapesho Ltd operate in?

- A. Oligopoly
- B. Monopoly
- C. Perfect competition
- D. Monopsony

(2 marks)

- 1.2 Which one of the following will lead to a change in quantity demanded of a good?

- A. change in the price of a good
- B. change in consumer income
- C. change in the price of substitutes
- D. change in preferences

(2 marks)

- 1.3 Which of the following correctly describes the purpose of supply side policy?

- A. To raise the level of aggregate demand in an economy
- B. To improve the ability of an economy to produce goods and services
- C. To reduce unemployment by reducing the supply of labour
- D. To manage the money supply in an economy

(2 marks)

- 1.4 When a bank holds savings on behalf of savers for relatively short period of time and provides relatively long-term facilities for borrowers, which of the following services is it performing?

- A. Maturity transformation
- B. Risk transformation
- C. Aggregation
- D. Interest transformation

(2 marks)



- 1.5 Which term is used to describe the process of eliminating the excessive regulation and protection of markets in order to stimulate competition, improve efficiency and achieve economic growth?
- A. Protectionism
  - B. Free market
  - C. Free trade
  - D. Liberalisation
- (2 marks)
- 1.6 What is the principal difference between a public limited company and a private limited company?
- A. A private limited company is much smaller than a public limited company
  - B. A public limited company is state-owned
  - C. Shares in a private limited company have to be sold privately
  - D. A private limited company does not have to file its accounts where the public can read them.
- (2 marks)
- 1.7 Which one of the following is a variable cost to a firm?
- A. The cost of raw materials
  - B. Mortgage payments
  - C. Depreciation on a new machine
  - D. Monthly rent payments to lease the firm's warehouse building
- (2 marks)
- 1.8 The economy of a country is a closed economy with no government sector.  
 $C = 40 + 0.5Y$  (where  $Y$  = national income) Investment = 10.  
What is the equilibrium level of national income in the country?
- A. 40
  - B. 10
  - C. 45
  - D. 100
- (2 marks)
- 1.9 Which one of the following has been a significant driver of globalization?
- A. Divergent consumer tastes in different national consumer markets
  - B. Growth opportunities and weak competition for firms with domestic markets
  - C. Developments in information and communication technologies
  - D. Tariffs and import quotas reduction by national governments
- (2 marks)

1.10 If the government sets the price for a good below the equilibrium price, which one of the following describes the likely consequence of this?

- A. There will be no effect on market price or producer profits
- B. Suppliers will withdraw from the market due to falling income
- C. Unsold surpluses of the product will build up
- D. demand for the product will contract

(2 marks)

**[Total: 20 Marks]**

## SECTION B

This section has two parts: **Part 1. Microeconomics and Part 2. Macroeconomics**

### **1. MICRO ECONOMICS: Attempt any two (2) questions out of three (3).**

#### **QUESTION TWO**

- (a) Among many limitations, privatisation can create a private sector monopoly and governments often respond to those limitations by introducing safeguards.

Explain any three (3) safeguards that the government may introduce to prevent an unfair economic situation. (6 marks)

- (b) Q is the quantity and P the price of the commodity T. Compute the equilibrium price and equilibrium quantity traded for the commodity T in the following equations:

$$2P=7-Q$$

$$P=3Q$$

(5 marks)

- (c) A company produces a single product whose price elasticity of demand  $PE_D=-2$  and income elasticity of demand  $YED=+0.1$

Briefly explain;

- (i) the nature of the product (3 marks)  
(ii) the problems and opportunities facing the business (6 marks)

**[Total: 20 Marks]**

#### **QUESTION THREE**

- (a) Consider the total product plan of a firm operating in a perfectly competitive market below:

| Labor (Workers per week) | Output (Q) | FC (K) | VC (K) | TC (K) | MC (K) |
|--------------------------|------------|--------|--------|--------|--------|
| 0                        | 0          |        |        |        |        |
| 1                        | 50         |        |        |        |        |
| 2                        | 90         |        |        |        |        |
| 3                        | 140        |        |        |        |        |
| 4                        | 180        |        |        |        |        |
| 5                        | 210        |        |        |        |        |
| 6                        | 230        |        |        |        |        |
| 7                        | 240        |        |        |        |        |

Where FC = fixed cost, VC = variable cost, TC = total cost, AVC = average variable cost, ATC = average total cost and MC = marginal cost. If the firm hires each worker at K700 and its total fixed cost is K1, 000 per week;

**Required:**

Fill in the table above by calculating the cost functions of the firm. (12 marks)

- (b) A firm can grow extensively big. In the light of this statement briefly explain any four (4) sources of diseconomies of scale. (8 marks)

**[Total: 20 Marks]**

**QUESTION FOUR**

- (a) Differentiate between marginal product of labour ( $MP_L$ ) and average product of labour ( $AP_L$ ) (4 marks)

- (b) Zambia Electricity Supply Corporation (ZESCO) has a monopoly in electricity generation and distribution in Zambia.

Briefly explain any two (2) advantages and any three (3) disadvantages of a monopolist like ZESCO. (10 marks)

- (c) The success of a price cartel in an oligopoly market will depend on several factors.

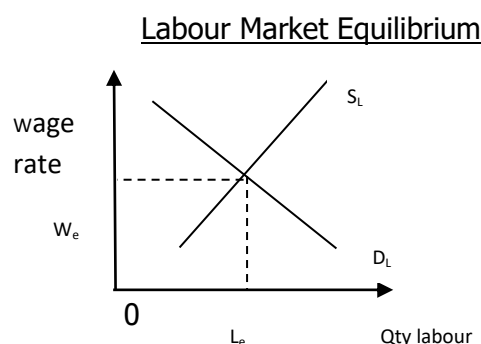
Explain any three (3) factors that will make price cartel successful (6 marks)

**[Total: 20 Marks]**

**2. MACRO ECONOMICS – Attempt any two (2) questions out of the three (3).**

**QUESTION FIVE**

- (a) Distinguish between stagflation and hyperinflation. (4 marks)
- (b) Describe how fiscal policy can be used to deal with rising inflation. (6 marks)
- (c) Assume the following data for a country: total population, 500; population under 16 years of age, 120; not in labor force, 140; unemployed, 36; part-time workers looking for full-time jobs, 10.
- (i) Calculate the size of the labor force (2 mark)
- (ii) Determine the official unemployment rate (2 mark)
- (iii) Assume the labor market is represented by the graph below. Illustrate what happens to the wage rate, quantities of labor supplied and demanded, as the economy goes into recession and demand for labour falls; (assume sticky wages) (6 marks)



**[Total: 20 Marks]**

**QUESTION SIX**

- (a) Explain any four (4) factors that can influence the level of investment in an economy of a country like Zambia. (8 marks)
- (b) If a household's disposable income has increased from K1, 200 to K2, 200 per week and consumption has increased from K900 to K1, 800.
- Compute the household's marginal propensity to consume (MPC) and interpret your result. (4 marks)
- (c) If a bank is required to keep a cash reserve ratio of 20% and it receives additional deposits of K1, 000,000.
- (i) Calculate the multiplier. (2 marks)
- (ii) Calculate the total increase in bank deposits (2 marks)
- (d) Briefly explain any two (2) negative consequences of a current account deficit for a country like Zambia. (4 marks)

**[Total: 20 Marks]**

### **QUESTION SEVEN**

- (a) In recent years we have witnessed big changes in the capital markets of the world.  
State any three (3) changes in the capital markets. (3 marks)
- (b) Zambia is a signatory to the World Trade Organisation (WTO).  
Outline any three (3) advantages that Zambia can derive from the free international trade. (6 marks)
- (c) The government of Zambia has been using monetary policy in order to influence the economy.  
Describe any four (4) effects of a rise in interest rates in an economy. (8 marks)
- (d) Outline any three (3) fiscal policy measures that the government may introduce in order to reduce the youth unemployment in Zambia. (3 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## **DA 3 Suggested Solutions**

### **SOLUTION ONE**

- 1.1 D
- 1.2 A
- 1.3 B
- 1.4 A
- 1.5 D
- 1.6 C
- 1.7 B
- 1.8 D
- 1.9 C
- 1.10 B

## SECTION B: MICROECONOMICS

### SOLUTION TWO

(a) The following are safeguards the government may introduce to prevent an unfair economic situation :

- **Minimum service charters:** the buyer of the enterprise is legally obliged to maintain services at a certain level, even if this reduces profits.
- **Regulatory watchdogs:** government appoints a body to monitor the performance of the industry, set prices, and perhaps charge penalties for poor performance.
- **Retain partial ownership:** the state may keep shares in the enterprise with a power to elect government representatives to the governing board. Sometimes government retains a special golden share which has special voting rights.

(b)  $2p=7-q \rightarrow (i)$

$P=3q \rightarrow (ii)$

Solving the simultaneous equations by substituting  $p=3q$  in (i)  $2 \times 3q=7-q$

$$6q+q=7 \quad 7q=7 \quad q=1$$

Substituting  $q=1$  in equation (ii)  $p=3 \times 1 = 3$

Equilibrium price=3 and Equilibrium quantity=1

(c) (i) **Nature of the product :** A price elasticity of demand of -2 means that the product is facing competition from other products on the market, which may be perceived as close substitutes. The demand for the product is elastic, hence resulting into a disproportionately large reduction in demand for a given increase in price. An income elasticity of demand of +0.1 indicates that the good is a normal good. This means that as a consumers income rise, ceteris paribus, demand for the good increases.

(ii) **Possible problems:** Since the demand for the product is elastic, a decision to raise the price by the company for its product will result in a fall in total consumer spending on the good and reduced revenue for the business. An increase in price results in the company's loss of customers to its rivals. This threatens the company's profitability unless it is able to control its costs.

On the other hand, demand for the product has positive income elasticity. However it is weak, implying that the company will not benefit significantly from rising consumer incomes.

Opportunities: A high price elasticity of demand indicates that, a reduction in price of the product will raise the company's revenue. Also although weak, the positive income elasticity of demand for the product means that the business will be able to enjoy rising sales if consumers income grow rapidly.



### SOLUTION THREE

(a)

| Labor | Output (Q) | FC (K) | VC (K) | TC (K) | MC (K) |
|-------|------------|--------|--------|--------|--------|
| 0     | 0          | 1000   | 0      | 1000   | -      |
| 1     | 50         | 1000   | 700    | 1700   | 23.3   |
| 2     | 90         | 1000   | 1400   | 2400   | 17.5   |
| 3     | 140        | 1000   | 2100   | 3100   | 14.0   |
| 4     | 180        | 1000   | 2800   | 3800   | 17.5   |
| 5     | 210        | 1000   | 3500   | 4500   | 23.3   |
| 6     | 230        | 1000   | 4200   | 5200   | 35.0   |
| 7     | 240        | 1000   | 4900   | 5900   | 70.0   |

(b) The following are diseconomies of scale:

- Communicating information and instructions may become difficult
- Chains of command may become excessively long, and management will too remote, and lose control over operations.
- Morale and motivation amongst staff may deteriorate, and there may be conflicts between different departments which have different objectives.
- Senior management may have difficulty in assimilating all the information they need in sufficient detail to make good quality decisions.
- There may be increased levels of bureaucracy.

## SOLUTION FOUR

(a) The marginal product of labour is the change in total output as a result of a unit change in the number of workers employed, while average product of labour is simply total product divided by the number of workers employed.

(b) The following are the factors that can make price cartel successful in an oligopoly market :

- Whether it consists of most or all of the producers of the product,
- Whether or not there are close substitutes for the product.
- The ease with which supply can be regulated. In the case of primary commodities, such as wheat, rice, tea and coffee, total supply is dependent on weather conditions and even political events in the producing country.
- The price elasticity of demand for the product. Cartels are likely to be most effective for goods which are inelastic. An attempt to raise prices by cutting output of an elastic good might result in such a large a fall in demand and such a small rise in price that the total income of producers also fall.
- Whether producers can agree on their individual shares of the total restricted supply to the market.

(c) Advantages of a monopolist like ZESCO are:

- They have huge resources at their disposal to engage in Research and Development
- If the cause is economies of scale, they tend to provide the goods/services efficiently
- They score highly in technological efficiency.
- They avoid duplication of services. In some cases the most efficient number of firms is one.
- They have the ability to subsidize loss-making services. Monopolies can charge high prices for peak services (or certain markets) and use the proceeds to subsidize off peak services (or markets).

Disadvantages of a monopolist like ZESCO are:

- Profit-maximizing output is likely to be at a price and output level which give supernormal profit at the expense of the consumer.
- Resources are not used in the most efficient way possible as average costs are not minimized.
- If there are no economies of scale, less will be produced and more sold at a high price than would be the case in a competitive market.
- Restrictive practices, such as price discrimination, can be carried out, to increase supernormal profits.
- Monopolies might become slack about cost control or about a complacent attitude to innovation, because they are not threatened by competition and can earn supernormal profits.

- Monopolies might stifle competition, by taking over smaller competitors who try to enter the market and by exploiting barriers to entry against other firms trying to enter the market.
- If in control of a vital resource, monopolies might make decisions which are damaging to the public interest

## SECTION B: MACROECONOMICS

### SOLUTION FIVE

(a) Distinguish between stagflation and hyperinflation.

- Stagflation: Refers to a condition of stagnation of economic growth and high rates of inflation. Occurs when a country experiences high inflation, a slowing economic growth rate and high unemployment. When stagflation takes place it becomes difficult to design a policy that deals with it.
- Hyperinflation: Occurs when there is an extremely high and rapid increase in price levels of more than 50% per month. This is caused by a sustained increase in the printing of money by central bank to finance its expenditure. There is then 'far too much money chasing too few goods'. When the price levels are rising so rapidly that people lose confidence in the value of money, it can be difficult for the economy to operate.

(b) Fiscal policy & inflation: When an economy is in a state where growth is at a rate that is getting out of control (causing inflation), contractionary fiscal policy can be used to bring it in to a more sustainable level. In order to control this inflation a government may reduce government spending and increase taxes.

A decrease in spending by the government will directly decrease aggregate demand curve by reducing government demand for goods and services.

Increases in tax levels will also slow growth, as consumers will have less money to consume and invest, thereby indirectly reducing the aggregate demand curve

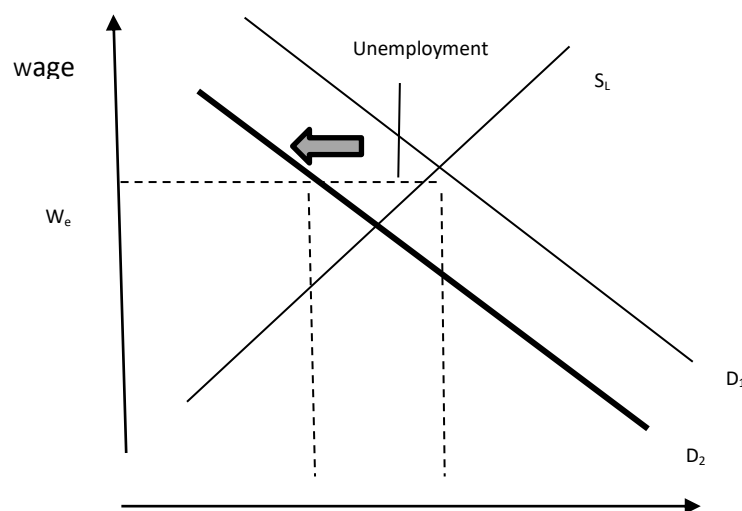
(c) Unemployment

i) Labour force = total population minus children under 16 years minus those not in labour force

$$\text{Labor force} = 500 - 120 - 140 = \mathbf{240}$$

ii) Unemployment rate = total number unemployed / labour force  $\times 100$   
Unemployment rate =  $36/240 = 0.15 = \mathbf{15\%}$

i) Labour – Market ss-dd model



$D_L$                        $S_L$                       Qtylabour

The wage, being “sticky,” stays at  $W^*$ , its original level. The quantity of labor demanded drops to  $D_L$ , while the quantity of labor supplied remains at  $S_L$ . There is unemployment, as shown by the difference between  $D_L$  and  $S_L$  on the graph.

## SOLUTION SIX

(a) The following are the factors that can influence the level of investment:

- The rate of interest on capital
- The marginal efficiency capital invested, the rate of return at which the Net Present Value of a project is zero.
- The expectations about the future and business confidence, including expectations about future cash flows and profit flows arising from the investment.
- The strengths of the consumer demand for goods
- Opportunity cost of investment

$$(b) MPC = \frac{\text{Change in Consumption}}{\text{Change in Income}} = \frac{900}{1,000} = 0.9$$

Marginal propensity to consume=MPC=0.9 This means when a household receives an income K100 , some will be spent K90 and some will be saved K10. The proportion which is consumed is called marginal propensity to consume.

(d) (i) Value of multiplier:

$$D = \frac{1}{r} = \frac{1}{0.2} = \mathbf{5}$$

$$(ii) \text{ Increase total increase in bank deposits is } D = \frac{c}{r} = \frac{1,000,000}{0.2} = \mathbf{K5,000,000}$$

$$\text{Or simply } 5 \times K1,000,000 = \mathbf{K5,000,000}$$

(c) The following are the possible negative consequences of a current account deficit:

- A country may borrow more and more from abroad , to build up external liabilities which match the deficit on its current account
- A country may sell more and more of its assets.
- Reserves of foreign currency held by the central bank may be run down.

## SOLUTION SEVEN

(a) The following are the changes in the capital markets :

- Globalisation of capital: The capital markets of each country have become internationally integrated.
- Securitisation of debt: Securitisation of debt means creating tradable securities which are backed by less liquid assets such as mortgages and other long term loans.
- Risk management (and risk assessment) : various techniques have been developed for companies to manage their financial risk such as swaps and options.
- There is much fiercer competition than there used to be between financial institutions for business.

(b) The following are advantages of free international trade :

- Some countries have a surplus of raw materials and others have a deficit. A country with a surplus can take advantage of its resources to export them.
- International trade increases competition among suppliers in the world markets. Greater competition reduces the likelihood of a market for a good in a country being dominated by a monopolist. The greater competition will force firms to be competitive and so will increase the pressures on them to be efficient.
- International trade create larger markets for a firms output, and so some firms can benefit from economies of scale by engaging in export activities.
- There may be political advantages to international trade, because the development of trading links provides a foundation for closer political links.

(c) The following are the effects of a rise in interest rates:

- **Spending falls:** higher interest rates increase the cost of credit and thereby deter spending. How is spending cut: Through attractive savings Rate.
- **Investment falls:** the increased rates will increase the opportunity cost of investment and reduce the net present value of the investment.
- **Foreign funds are attracted into the country:** interest rates are the reward for capital, so a rise in interest rates will encourage overseas investors because of the increased rate of return relative to other countries.
- **Exchange rate rises:** The inflow of foreign funds increases the demand for currency and therefore increases the exchange rates.
- **Inflation rates fall:** This is the overall goal of an interest rate rise.
- **Bond prices fall:** There is an inverse relationship between bond prices and the rate of interest.

(d) The following are the fiscal policy measures that the government may introduce in order to reduce the youth unemployment in Zambia:

- More government spending on capital projects would create jobs in the construction industries.
- Government-funded training schemes are a means of spending by government to improve training, so as to make people more qualified for jobs in private industry.
- A government might tax companies on the basis of the numbers. Lower employment taxes would possibly make employers more willing to take on extra numbers of employees.



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA 4: INFORMATION TECHNOLOGY AND COMMUNICATION

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WEDNESDAY 11 DECEMBER 2019

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

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### **INSTRUCTIONS TO CANDIDATES**

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

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



## **SECTION A – (Compulsory)**

### **Attempt all ten (10) multiple choice questions**

#### **QUESTION ONE**

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen.

- 1.1 From the four (4) items given below, which one is a computer presentation that combines animations, sound, text, video and graphics?
- A. Compound
  - B. Composite
  - C. PowerPoint
  - D. Multimedia
- (2 marks)
- 1.2 Give an example of Word processing, spreadsheet and photo editing in the following:
- A. Operating system
  - B. Utility software
  - C. User software
  - D. Application software
- (2 marks)
- 1.3 Which one of the following is an example of a storage device
- A. Magnetic strip card
  - B. Memory stick
  - C. Optical mark reading
  - D. Scanners
- (2 marks)
- 1.4 From the following, choose the correct order of replicating a sentence from one position to others in a document?
- A. Copy and paste
  - B. Delete and Paste
  - C. Cut and Paste
  - D. Dragging
- (2 marks)
- 1.5 Give an example of a micro-computer in the following options:
- A. Mainframe computer
  - B. Super computer
  - C. Mini computer
  - D. Desktop computer
- (2 marks)

- 1.6 Which one of the following nonverbal cues involves physiological change.
- A. Nodding
  - B. Blushing
  - C. Smiling
  - D. Wide eyed amazement
- (2 marks)
- 1.7 Which of the following statements is true about vertical communication?
- A. Communication between one staff and another staff in another department
  - B. Communication between subordinates and their supervisors
  - C. Communication between staff at the same level within the same department
  - D. Communication between one member of staff and a supervisor in another department
- (2 marks)
- 1.8 Which of the following is a type of communication pattern?
- A. The Y network
  - B. The chain network
  - C. The simple network
  - D. The circle network
- (2 marks)
- 1.9 Which of the following best describes an aspect of structure in a **PASS** model?
- A. It refers to language presented when communicating.
  - B. It refers to structuring the message in the simplest form
  - C. It refers to style of communication
  - D. It refers to logical presentation of information
- (2 marks)
- 1.10 Which of the following describes the best improved use of power point presentation?
- A. Rehearse a presentation one at a time
  - B. Research on a topic under discussion
  - C. Avoid having too many slides.
  - D. Plan the best way to get the message across
- (2 marks)
- [Total: 20 Marks]**

## SECTION B

This section has two parts: **1. INFORMATION TECHNOLOGY AND**

### **2. COMMUNICATION**

**ATTEMPT ANY TWO (2) FROM QUESTIONS: TWO, THREE AND FOUR**

#### **1. INFORMATION TECHNOLOGY**

##### **QUESTION TWO**

An operating system is a set of programs that provides the bridge between application Software and computer users and the Hardware.

##### **Required:**

- (a) Briefly explain the five (5) features of Microsoft Windows Operating System. (5 marks)
- (b) Explain the following threats to information systems and how they can be prevented
- (i) Malware (3 marks)
  - (ii) Eavesdropping (3 marks)
- (c) Briefly explain the following types of technical controls and give examples.
- (i) Authorisation, (3 marks)
  - (ii) Documentation (3 marks)
  - (iii) Backup (3 marks)

**[Total: 20 Marks]**

##### **QUESTION THREE**

- (a) Describe business operations integrated in a typical ERP system. (4 marks)
- (b) Explain the following features of Ms Office
- (i) Thesaurus (2 marks)
  - (ii) Dragging and dropping (2 marks)
- (c) Consider the worksheet below

|   | A  | B           | C           | D           | E           | F              | G              |
|---|--|-------------|-------------|-------------|-------------|----------------|----------------|
| 1 | <b>KLM</b>   |             |             |             |             |                |                |
| 2 | <b>QUARTERLY SALES ANALYSIS FOR THE YEAR ENDED 31 SEP 2018</b> |             |             |             |             |                |                |
| 3 | <b>REGION</b>  | <b>QTR1</b> | <b>QTR2</b> | <b>QTR3</b> | <b>QTR4</b> | <b>AVERAGE</b> | <b>COMMENT</b> |
| 4 | <b>SOUTHERN</b>  | 25000       | 23000       | 22500       | 24000       |                |                |
| 5 | <b>MIDLANDS</b>  | 22500       | 19000       | 20500       | 25000       |                |                |
| 6 | <b>NORTHERN</b>  | 23000       | 21000       | 19000       | 22800       |                |                |
| 7 | <b>EASTERN</b>   | 19500       | 17500       | 21500       | 19500       |                |                |
| 8 | <b>WESTERN</b>   | 21000       | 18000       | 20000       | 23000       |                |                |
| 9 | <b>TOTAL</b>   |             |             |             |             |                |                |

**Required:**

Write the formulae using cell referencing to carry out the following:

- (i) To calculate the TOTAL for each quarter (4 marks)
- (ii) To calculate the AVERAGE sales for each region (4 marks)
- (iii) Using the average sales put a comment to indicate "good sales" if the average sales is 20000 and above, otherwise indicate "bad sales" (4 marks)

**[Total: 20 Marks]**

**QUESTION FOUR**

The use of computers in many business houses has made the works very easy. Especially in terms of typing, printing, scanning, E-mail, photocopying even phone calls. All in all, information technology has made the world to be a small village because communication has been made easy and very fast. As people in the world, we have gone ahead ten (10) steps compared to our forefathers who lived in the previous centuries.

- (a) Explain in details any four (4) benefits of using computers in the modern world. (8 marks)
- (b) Give four examples of search engines. (4 marks)
- (c) Describe any four (4) elements of an organisation's information system. (8 marks)

**[Total: 20 Marks]**

**2. COMMUNICATION**

**ATTEMPT ANY TWO (2) FROM QUESTIONS: FIVE, SIX AND SEVEN**

**QUESTION FIVE**

- (a) Using a diagram as a way of illustrating the communication process, briefly explain each stage of the communication process. (14 marks)
- (b) State any **six (6)** factors that affect the choice of medium of communication (6 marks)

**[Total: 20 marks]**

**QUESTION SIX**

Documents such as agenda, notice and minutes are important for meetings to run effectively.

**Required:**

- (a) State any four (4) roles that each of the following documents play when running effective meetings:
  - (i) Notice
  - (iii) Agenda
  - (iiii) Minutes

(12 marks)

- (b) A Chairperson is a key person of any successful meeting; briefly explain any four (4) duties of a chairperson of a business meeting. (8 marks)

**[Total: 20 Marks]**

### **QUESTION SEVEN**

As a supervisor in the Accounts Department you need three temporal cashiers to assist with the sales because of a shortage of staff during the peak times of the year.

#### **Required:**

- (a) Write a memo to the Human Resources Manager requesting for three temporal cashiers to assist with sales in your department. (14 marks)
- (b) Briefly explain the three (3) main formal channels of communication used in an organisation. (6 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## **SUGGESTED SOLUTION DA4**

### **SOLUTION ONE**

- B Composite
- B Utility software
- B Memory stick
- A Copy and paste
- D Desktop computer
- B Blushing

1.7 B. Communication between subordinates and their supervisors

1.8 C The simple network

1.9 D It refers to logical presentation of information

1.10 C Do not have many slides

## SECTION B

### SOLUTION TWO

a)

The features of Microsoft windows are:

- **User friendly** – this implies user interface enhancement such as single click launching of an application, icon highlighting, forward /backward buttons.
- **Reliability** – windows can be set up to regularly test the user’s hard disk, system files and configuration information to increase the systems reliability and in any cases fix problems automatically.
- **Web integration** – This is designed to enhance internet access and use of internet facilities and technologies and integrate them with the user’s system
- **Multimedia** – windows has graphics and video capabilities and support for game hardware such as joysticks. It supports digital video disks (DVD)
- **Graphical user interface** – windows has a user friendly graphical user interface most of the dialogue between the user and software is conducted through the mouse and on screen images rather than typed text. The GUI has features such as Windows, icon, mouse and pull down menu)
- **Multitasking** - it allows a user to perform more than one task such as the operation of an application program. The operating system is able to keep track of where you are in these tasks and go from one to another without losing information.

b)

- **Malware** is short for malicious software. It is a piece of software that finds its way into the computer and causes damages to the computer or the data stored on it. Malware can be prevented by installing update well known anti-virus software
- **Eavesdropping** is when a person is secretly listening to the data being transmitted over a network. This can be prevented by encrypting the data before transmitting it.

c)

#### i)Authorisation

This control ensures that only authorised persons have access to organization resources. In highly computerised organisations the individual authorised are given unique passwords and access rights and levels which are not supposed to be shared.

- **Documentation**

The controls ensure that any changes, amendments and deletions to the database are documented. These changes could be used to later trace any individual who made these changes to the database

- **Backup**

Ensures that same copy of the data is kept regularly or periodically in different storage location in case of disaster.



## SOLUTION THREE

- Typical ERP system could be the system which integrates manufacturing operations into one single system. The system promotes sharing of data and information among the different departments in the manufacturing organization. These operations include the finance, accounting, marketing, human resources and operations.
- In finance operation the integration will include all the financial reports such as customer's credit ratings and current selling prices which could be shared through the ERP software to the rest of the departments such as accounting, marketing, operation and human resources.
- The accounting operation could share information through the ERP software such as sales record, payments and business performance tracking to the all the other department of marketing, finance, operation and human resource.
- Marketing operation could share information through the ERP software, the information from marketing information could include coordination of sales activities and handles customer relations based on the credit rating from Finance operation integration module.
- Human Resources could integrate with the other departments through the ERP software including operation department which could share information such as inventory control throughout the value chain.
- Thesaurus is a feature in MS Office that give a list of words of similar meaning (synonyms) and opposite meaning (antonyms) to the selected word
- Dragging and dropping is moving files and folders to the location where you wish to move them to.
- = B4 + B5 + B6 + B7 + B8 or = SUM(B4:B8)
- = AVERAGE(B4:E4)
- =IF(F4 >= 20000, "Good Sales", " Bad Sales")

## SOLUTION FOUR

- **Benefits of using computers**

- **Communication** - Most computers nowadays are able to communicate with other computers, often wirelessly
- **Consistency** - Given the same input and processes, a computer will produce the same results consistency.
- **Reliability** - Modern computers are dependable and reliable because they rarely break or fail.
- **Speed** - When data, instructions and information flow along electronic circuits in a computer, they travel at incredibly fast speed, processing involves computing. For example; adding, subtracting and sorting.
- **Storage** - A computer can transfer data quickly from storage to memory, process it and then store it again for future use.

- Examples of search engines

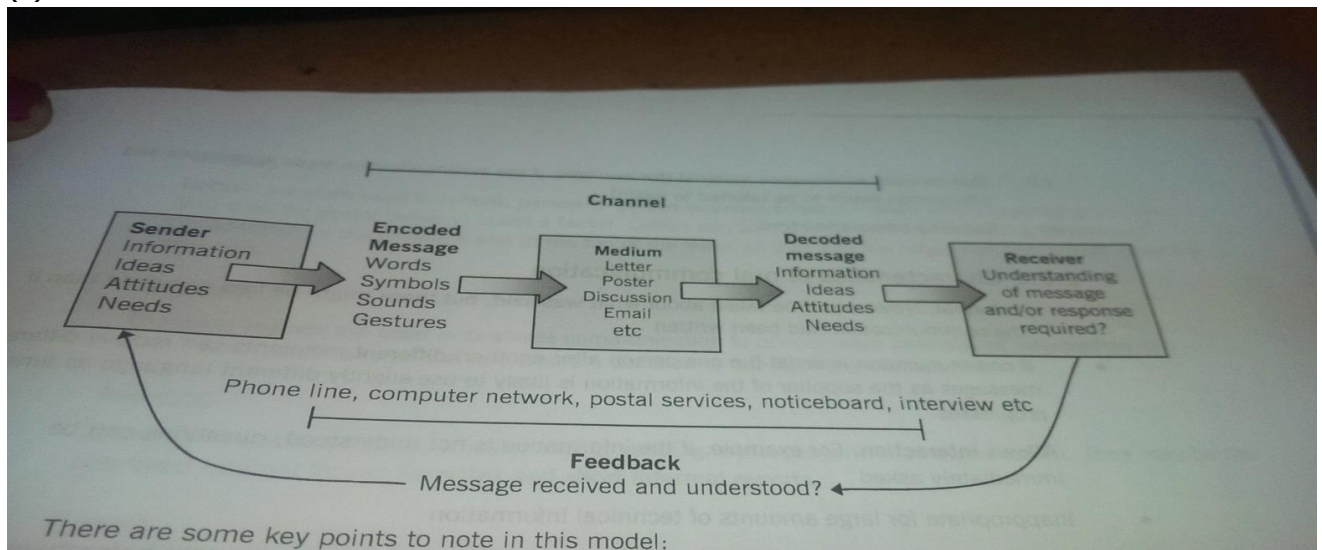
- google
- Bing
- Yahoo
- ASK.com

- Elements an information system

- **Hardware:** refers to computers themselves and other devices that work with computers
- **Software:** this is what controls the operations of hardware. It gathers, organizes and manipulates data and carries out instructions.
- **Data:** this is the statistical data that computer work on.
- **Procedures:** these are the rules, descriptions and instructions for how things are done.
- **People:** these design and operate the software, input the data, build the hardware and keep running
- **Communication:** this allows one computer to communicate with one another or allows people to exchange information.

## SOLUTION FIVE

(a)



**Stage 1 – The message is conceived,** the sender establishes the **purpose of communication**

**Stage 2 – Encoding the message,** the sender selects carefully the words, symbols diagrams and numbers so that they accurately convey what they mean. The language that is familiar with the recipient is usually used so that the purpose of communication is achieved.

**Stage 3 – Choice of medium** - The sender then selects a suitable medium of communication such as oral, written and visual taking into factors such as cost and many more before a message is finally sent.

**Stage 4 – Decoding the message** – once the recipients gets in contact with the message by either reading or listening, the message is then interpreted. The interpretation can either be positive or negative.

**Stage 5 – Supplying feedback.** The recipient then sends feedback to the sender of the message. it is important because it helps to know whether the message was understood or not.

(b) The factors that affect the choice of medium are:

- The urgency of the matter
- The distance
- The cost
- The circumstances of the recipient
- The need for a written record

- The safety and security of the information
- The sensitivity of the matter
- The confidentiality of the information
- The need for interaction
- The format that will best support the message across to the recipient

## **SOLUTION SIX**

- Roles of meetings documents
  - **Notice**
  - To invite participants for a meeting.
  - To prepare members psychologically for the meeting
  - To allow members to reschedule their routine work
  - To notify participants about a meeting
  - **Agenda**
  - To assist participants to prepare for a forth coming meeting
  - To inform participants in advance about the matters to be discussed
  - To act as a guiding document during the meeting
  - To provide organised sequence of issues to be discussed
  - **Minutes**
  - To provide a record for the previous meeting
  - To act as a reference point for any matters arising
  - To avoid distortion of information from oral deliberations
  - It reflects on how well organized a meeting committee is.
  - It reflects attendance of members
  - It helps to form the next agenda
  - The duties of a chairperson are as follows:
    - Ensures that the proceedings are conducted in an orderly and civilized manner so that there are no insults or bad language at all.
    - Ensures that the agenda is followed
    - Encourages all members to contribute positively during the meeting
    - In some cases, assists with preparations of the agenda
    - Clarifies and summaries points made by members
    - Decides when a vote must be appropriate
    - Assists in deciding who should attend a meeting
    - Signs the approved minutes

## **SOLUTION SEVEN**

- **Wana Group of Companies**

**Memorandum**

**Ref:** wan /812/19

**Date:** any date during exam time

**To:** The Human Resources Manager

**From:** The Assistant Accountant

**Subject: Three extra temporal staff**

This serves to request for extra three temporal cashiers to assist with sales. As you might be aware, during this particular time of the year, we always experience a peak time in the sales.

Over the past three weeks there has been a very high demand of our products by customers from all walks of life. This has resulted in very long queues and delayed service.

As an organization we wish to uphold our reputation by serving our esteemed customers effectively and efficiently. In our effort to do so, we wish to request for extra three temporal cashiers to assist us with sales. In this case, it would be better if the temporal cashiers start work as soon as possible.

Your consideration in this matter will be appreciated.

**Sender's signature**

**Sender's name**

(b)

### **The formal channels of communication in an organization**

#### **(i) Vertical communication consists of**

- **Downward** – Communication from senior managers to junior employees. It is mostly done through letters, reports, inductions meetings and memos

- **Upward** - Communication from junior employees to senior managers. It is mostly done through letters, report, meetings, and memos

**(ii)lateral/ sideways /horizontal/** - Communication among staff at the same level. It is mostly done through notes, memos and meetings

**(iii) Diagonal communication** – communication that cuts across all different levels or position in an organization. It comes in terms of memos, meetings, letters , inductions



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA: 5 COST ACCOUNTING

---

TUESDAY 10 DECEMBER 2019

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

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**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.
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Section A: One (1) Compulsory question.  
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## SECTION A – MULTIPLE CHOICE

Attempt ALL ten (10) multiple choice questions in this Section.

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

### QUESTION ONE

- 1.1 Which one of the following statement is correct regarding cost accounting?  
A. It provides information only to external parties.  
B. It is based on historical events and transactions.  
C. It determines the cost of a unit.  
D. It prepares the reports according to legal requirement.
- (2 marks)

- 1.2 What is an attainable standard?  
A. A standard which includes no allowance for losses, wastages and inefficiencies. It represents the level of performance which is attainable under perfect operating conditions.  
B. A standard which is based on currently attainable operating conditions.  
C. A standard which is kept unchanged to show the trend in costs.  
D. A standard which includes some allowance for losses, wastage and inefficiencies. It represents the level of performance which is attainable under efficient operating conditions.
- (2 marks)

- 1.3 Which one of the following is an example for a cost unit?  
A. A hotel  
B. Canteen  
C. A bakery  
D. A loaf of bread
- (2 marks)

- 1.4 The following information is related to item X of ABC Ltd;

|                              |            |
|------------------------------|------------|
| Annual Demand                | 1000 units |
| Annual holding cost per unit | K0.20      |
| Cost of ordering per order   | K100       |

Based on the above information, the EOQ would be:

- A. 10,000 units  
B. 1,000 units  
C. 707 units  
D. 224 units
- (2 marks)

1.5 Which one of the following costs is considered as part of the prime cost?

- A. Indirect material
- B. Indirect labour
- C. Direct material
- D. Production overhead

(2 marks)

1.6 A manufacturing company pays K60 per hour for a worker and the expected output per hour is 10 units. An incentive is paid for additional units at K8 per unit. If a worker produced 82 units within 7 hours of work, his incentive would be:

- A. K72
- B. K420
- C. K516
- D. K96

(2 marks)

1.7 Allocation of overhead is:

- A. The process of spreading overhead between cost centres on a rational basis.
- B. The process of charging overhead costs to a particular department or cost centre.
- C. The process of attributing overheads to a cost unit.
- D. The process of charging the difference between absorbed overhead and actual overhead.

(2 marks)

1.8 The following information was extracted from Douglas manufacturing company for the year 2019.

|                              | <b>Actual</b> | <b>Budgeted</b> |
|------------------------------|---------------|-----------------|
| Production overhead cost (K) | 90,000        | 110,000         |
| Direct labour (hours)        | 10,500        | 11,000          |

Based on the above information above, the under/over absorbed production overhead is?

- A. Under absorbed by K15,000
- B. Over absorbed by K15,000
- C. Under absorbed by K20,000
- D. Over absorbed by K20,000

(2 marks)

- 1.9 800 litres of a chemical were input in a period. There is a normal loss of 25% of material input into the process. Output in the period was 500 litres.

What was the abnormal gain/loss in the period?

- A. 100 Litres
- B. 1,500 Litres
- C. 1,100 Litres
- D. 500 Litres

(2 marks)

- 1.10 A company manufacturing a single product had the following relevant data for December:

|                           | <b>Budgeted/standard</b> | <b>Actual</b> |
|---------------------------|--------------------------|---------------|
| Production units          | 1,800                    | 1,900         |
| Labour hours              | 9,000                    | 9,400         |
| Fixed production overhead | K36,000                  | K39,480       |
| Direct labour cost        | K90,000                  | K95,400       |

Using the information above what is the fixed production overhead capacity and efficiency variances for December.

- |    | <b>Capacity</b> | <b>Efficiency</b> |
|----|-----------------|-------------------|
| A. | K1,600 (F)      | K400 (F)          |
| B. | K1,600 (A)      | K400 (A)          |
| C. | K1,600 (A)      | K400 (F)          |
| D. | K1,600 (F)      | K400 (A)          |

(2 marks)

**[Total: 20 Marks]**

## **SECTION B**

**There are Five (5) questions in this Section. Attempt any FOUR (4) questions.**

### **QUESTION TWO**

- (a) You work for a management consulting firm whose mandate is to provide consultancy services to manufacturing companies in Zambia as well as conducting training through workshops and seminars. During the previous workshop conducted by your firm at Village Inns in Solwezi, a questionnaire was distributed to participants with a request for them to suggest probable training topics for future seminars for the year 2019. Your Boss, Ms. Mwila Zulu has asked you to compile a list of suggested topics as per the questionnaire. The most popular topic raised by participants was "Cost Reduction Strategies".

#### **Required:**

Prepare notes on the following basic cost definitions for the development of the PowerPoint presentation by Ms. Mwila Zulu in the forthcoming workshop.

- (i) Cost Object (2 marks)
- (ii) Cost Unit (2 marks)
- (iii) Cost Centre (2 marks)
- (iv) Variable Cost (2 marks)
- (v) Fixed Cost (2 marks)
- (vi) Mixed Costs (2 marks)
- (vii) Conversion Costs (2 marks)

- (b) The maintenance cost for the leading cooking oil manufacturer in Main Masala, Ndola for the past six months are as follows:-

| <b>Month</b> | <b>Maintenance<br/>Hours</b> | <b>Total Maintenance<br/>Costs (K)</b> |
|--------------|------------------------------|--|
| January      | 625                          | 7,950                                  |
| February     | 500                          | 7,400                                  |
| March        | 700                          | 8,275                                  |
| April        | 550                          | 7,625                                  |
| May          | 775                          | 9,100                                  |
| June         | 800                          | 9,800                                  |

#### **Required:**

- (i) Determine an estimate of the total maintenance costs for the month of July 2019 when maintenance hours are anticipated to be 912 using the high low method. (4 marks)
- (ii) List two (2) other ways of separating semi-variable costs, other than the one used in b (i) above. (2 marks)

**[Total: 20 Marks]**

### **QUESTION THREE**

- (a) KAKA Plc. Has provided the following details in relation to its inventory of raw material Q and work-in progress:

#### **Raw material Q**

|              |                      |                         |
|--------------|----------------------|-------------------------|
| 01 June 2019 | Received             | 1,000 Kg @ K8.00 per Kg |
| 10 June 2019 | issued to production | 800 Kg                  |
| 16 June 2019 | Received             | 1,200 Kg @ K9.50 per Kg |
| 23 June 2019 | Received             | 600 Kg @ K10.00 per Kg  |
| 28 June 2019 | Issued to production | 1,500 Kg                |

#### **Required:**

Prepare a statement showing the amount charged to production and the cost of the inventory of raw materials held after each inventory transaction using each of the following methods of inventory valuation:

- (i) First-in ,First-out (FIFO)
- (ii) Last-in, First-out (LIFO)
- (iii) Weighted Average (AVCO)

(12 marks)

- (b) KAKA plc. Is planning to launch a new product next year and budgeted to use 55,000 units of a special material. The material will be used at an even rate throughout the year. The purchasing manager has decided he is going to place orders for 2,200 units at regular intervals during the year. The costs associated with the material are as follows:

1. Purchase price                      K2.75 per unit
2. Ordering cost                        K15 per order
3. Holding cost                         K1.00 per unit, per year

#### **Required:**

- (i) Calculate the ordering and holding cost based on the suggested quantity of 2,200 units per order. (4 marks)
- (ii) State the meaning of economic order quantity (EOQ) model. (1 mark)
- (iii) Calculate the Economic order quantity (EOQ). (3 marks)

**[Total: 20 Marks]**

#### **QUESTION FOUR**

DAFO Ltd is a Zambian manufacturing company which is currently reviewing the costing arrangements for product OD35. During the first quarter of the year, it sold 50,000 units of OD35 at K30.00 per unit. The Company produced 45,000 units of OD35 during the quarter and the following production cost information has been provided for the quarter:

| <b>OD35</b>          | <b>Per Unit<br/>K</b> | <b>Total Cost<br/>K</b> |
|----------------------|-----------------------|-------------------------|
| Direct Materials     | 7.00                  | 315,000                 |
| Direct Labour        | 16.00                 | 720,000                 |
| Production Overheads | 5.00                  | 225,000                 |

At the beginning of January 2019, there was inventory of 10,000 units valued as follows:

|                      | <b>Per Unit<br/>K</b> | <b>Total Cost<br/>K</b> |
|----------------------|-----------------------|-------------------------|
| Direct Materials     | 6.50                  | 65,000                  |
| Direct Labour        | 16.25                 | 162,500                 |
| Production Overheads | 5.00                  | 50,000                  |

Sales and administration overheads for the quarter were as follows:

|          | <b>K</b> |
|----------|----------|
| Variable | 55,000   |
| Fixed    | 50,000   |

It is estimated that 40% of production overheads are variable while the remainder are fixed.

#### **Required:**

- (a) Prepare profit/loss statement for the quarter using:
- (i) Absorption Costing (8 marks)
  - (ii) Marginal Costing (6 marks)
- (b) List three (3) advantages and three (3) disadvantages of absorption costing. (6 marks)

**[Total: 20 Marks]**

### **QUESTION FIVE**

Sinda Construction Company undertakes large contracts and produces product Q which is sold within the country. The following particulars relate to contract No. 125 carried out during the year ended on 31 March, 2019.

| <i>Particulars</i>                          | <b>K</b>   |
|---|------------|
| Work certified by architect                 | 14,300,000 |
| Wages accrued on 31 March 2019              | 180,000    |
| Cost of work not certified                  | 340,000    |
| Direct expenditure                          | 240,000    |
| Plant installed at site                     | 1,130,000  |
| Materials on hand on 31 March 2019          | 140,000    |
| Value of plant on 31 March 2019             | 820,000    |
| Materials returned to store                 | 40,000     |
| Materials sent to site                      | 6,450,000  |
| Direct expenditure accrued on 31 March 2019 | 20,000     |
| Labour                                      | 5,480,000  |
| Establishment charge                        | 325,000    |
| Contract price                              | 20,000,000 |
| Cash received from contractee               | 13,000,000 |

It was decided to transfer 2/3 of the profit on cash basis to Profit and Loss Account.

#### **Required:**

(a) Prepare a Contract Account for the period ending 31 March 2019 and find out the profit taken. (8 marks)

(b) The following standard cost per unit relates to Product Q:

|   |           |
|---|-----------|
|   | <b>K</b>  |
| Direct material: 2.8kg @ K5 per kg                  | 14        |
| Direct labour: 0.2 hours @K80 per hour              | 16        |
| Fixed production overhead: 0.2 hours @ K50 per hour | <u>10</u> |
| Standard Cost                                       | 40        |

Budgeted production 12 000 units

Actual results for the financial year just ended:

|                            |                  |          |
|----------------------------|------------------|----------|
| Direct labour: 2275 hours  | costing in total | K182,455 |
| Direct material: 33,350 kg | costing in total | K160,080 |
| Fixed production overhead  | costing in total | K112,700 |
| Actual production          | 11,500 units     |          |

#### **Required:**

Calculate the following cost variances:

- (i) Direct material price and usage (4 marks)
- (ii) Direct labour rate and efficiency (4 marks)
- (iii) Fixed production overhead expenditure and volume (4 marks)

**[Total: 20 Marks]**

## **QUESTION SIX**

The following are the transactions of Chilenje Limited for the month of May 2019.

1. Raw materials of K182,000 were purchased on credit.
2. Raw materials of K2,000 were returned to the supplier due to defects.
3. The total of stores requisitions for direct materials issued for the period was K165,000
4. The total issues for indirect materials for the period was K10,000
5. Gross wages of K185,000 were incurred during the period consisting of wages paid to employees K105,000, PAYE K60,000 and NAPSA Contributions due K20,000.
6. All the amounts due in transaction 5 were settled by cash during the period.
7. The allocation of the gross wages for the period was follows:

|                |          |
|----------------|----------|
| Direct wages   | K145,000 |
| Indirect wages | K40, 000 |
8. The employer's contribution for NAPSA was K25,000
9. Indirect factory expenses of K41,000 were incurred during the period
10. Depreciation of factory machinery was K30,000
11. Overhead expenses allocated to jobs by means of overhead allocation rates was K140,000 for the period.
12. Non-manufacturing overhead incurred during the period was K40,000
13. The costs of jobs completed and transferred to finished goods stock was K300,000
14. The sales value of goods withdrawn from inventory and delivered to customers was K400,000 for the period
15. The cost of goods withdrawn from inventory and delivered to customers was K240,000 for the period.

### **Required:**

Prepare the following accounts for the period in the company's integrated accounting system:

- |   |           |
|---|-----------|
| (a) Stores ledger control account       | (5 marks) |
| (b) Wages control account               | (5 marks) |
| (c) Work-in-progress control account    | (4 marks) |
| (d) Production overhead control account | (6 marks) |

**[Total: 20 Marks]**

**END OF PAPER**



## **DA5 COST ACCOUNTING**

### **SOLUTION ONE**

1. C

2. D

3. D

4. B

5. C

6. D

7. B

8. B

9. A

10. A

## **SOLUTION TWO**

**(a)**

**(viii) Cost Object**

A cost object is any activity for which a separate measurement of costs is desired. Examples of cost objects include the cost of a particular product, the cost of rendering a service, cost of operating a department, sales territory, or indeed anything for which one wants to measure the costs of resources used.

**(ix) Cost Unit**

A cost unit is a unit of production or unit of activity in relation to which cost is measured. The cost unit is a basic control unit for costing purposes. A cost unit is a unit of product or service in relation to which costs are ascertained. The physical measure of product or service for which costs can be determined, is a cost unit. In a printing firm for example, the cost unit would be the specific customer order. For a paint manufacturer, the unit would be a litre of paint, to the milk supplier, it would be a litre of milk, etc.

**(x) Cost Centre**

Cost center means a location, person, or item of equipment or group of things for which costs may be ascertained and used for the purpose of cost control.

**(xi) Variable Cost**

Variable costs are those cost which vary directly in proportion to change in volume of production/output. The cost which increases or decreases in the same proportion in which the units produced is termed as variable cost. Direct material, direct labour, direct expenses, variable overheads are some examples of variable costs.

**(xii) Fixed Cost**

A cost that remains constant within a given period of time and range of activity in spite of fluctuations in production. Rent and insurance of building, depreciation on plant and machinery, salary of employees etc., are some examples of fixed costs.

**(xiii) Mixed Costs**

A mixed cost contains both fixed and variable component and which is thus partly affected by fluctuations in the level of activity. Semi-variable costs is that cost of which some part remains fixed at the given level of production and other part varies with the change in the volume of production but not in the same proportion of change in production. For example, telephone expenses of which rent portion is fixed and call charges are variable.

**(xiv) Conversion Costs**

These are the direct labour costs plus production or factory overheads in producing a product or providing a service.

(b)

(iii) An estimate of the total maintenance costs for the month of July 2019

Using the High Low Method

|            | Maintenance (Hours) | Total Costs (K) |
|------------|---------------------|-----------------|
| High       | 800                 | 9,800           |
| Low        | <u>500</u>          | <u>7,400</u>    |
| Difference | <u>300</u>          | <u>2,400</u>    |

**Variable costs per unit** = K2,400/300 hours  
**= K8 per maintenance hour**

**At 800 maintenance hours**

|                                 |              |
|---------------------------------|--------------|
|                                 | K            |
| Variable Costs (800 hours x K8) | 6,400        |
| Fixed Costs                     | <u>3,400</u> |
| Total Costs                     | <u>9,800</u> |

**At 912 maintenance Hours**

|                                   |                      |
|-----------------------------------|----------------------|
| Variable costs (912 hours x K8)   | 7,296                |
| Fixed Costs                       | <u>3,400</u>         |
| Estimated Total Maintenance Costs | <b><u>10,696</u></b> |

(iv) List two (2) ways of separating semi-variable

- Scatter diagram
- Linear regression analysis
- High low method

### SOLUTION THREE

#### i. First-in first-out (FIFO) method

|         | value        | <u>Received</u> |        |               | <u>Issued</u> |        |               | Qty   | price  |
|---------|--------------|-----------------|--------|---------------|---------------|--------|---------------|-------|--------|
|         |              | Qty             | price  | Balance value | Qty           | price  | value         |       |        |
| K       |              | Kg              | per kg | K             | kg            | per kg | K             | kg    | per kg |
| 1 June  |              | 1,000           | 8.00   | 8,000         |               |        |               | 1,000 | 8.00   |
|         | <u>8,000</u> |                 |        |               |               |        |               |       |        |
| 10 June |              |                 |        |               | 800           | 8.00   | 6,400         | 200   | 8.00   |
|         | <u>1,600</u> |                 |        |               |               |        |               |       |        |
| 16 June |              | 1,200           |        | 9.50          |               |        |               |       | 1,200  |
|         | 9.50         | 11,400          |        |               |               |        |               |       |        |
| 23 June |              | 600             | 10.00  | 6,000         |               |        |               | 600   | 10.00  |
|         | <u>6,000</u> |                 |        |               |               |        |               |       |        |
| 28 June |              |                 |        |               | 200           | 8.00   | 1,600         |       |        |
|         |              |                 |        |               | 1,200         | 9.50   | 11,400        |       |        |
|         |              |                 |        |               | <u>100</u>    | 10.00  | <u>1,000</u>  |       |        |
|         |              |                 |        |               | <u>1,500</u>  |        | <u>14,000</u> | 500   | 10.00  |
|         | <u>5,000</u> |                 |        |               |               |        |               |       |        |

#### ii. Last-in, First-out (LIFO) method

|         | value        | <u>Received</u> |        |               | <u>Issued</u> |        |               | Qty   | price  |
|---------|--------------|-----------------|--------|---------------|---------------|--------|---------------|-------|--------|
|         |              | Qty             | price  | Balance value | Qty           | price  | value         |       |        |
| K       |              | Kg              | per kg | K             | kg            | per kg | K             | kg    | per kg |
| 01 June |              | 1,000           | 8.00   | 8,000         |               |        |               | 1,000 | 8.00   |
|         | <u>8,000</u> |                 |        |               |               |        |               |       |        |
| 10 June |              |                 |        |               | 800           | 8.00   | 6,400         | 200   | 8.00   |
|         | <u>1,600</u> |                 |        |               |               |        |               |       |        |
| 16 June |              | 1,200           | 9.50   | 11,400        |               |        |               | 1,200 | 9.50   |
|         | 11,400       |                 |        |               |               |        |               |       |        |
| 23 June |              | 600             | 10.00  | 6,000         |               |        |               | 600   | 10.00  |
|         | <u>6,000</u> |                 |        |               |               |        |               |       |        |
| 28 June |              |                 |        |               | 600           | 10.00  | 6,000         |       |        |
|         |              |                 |        |               | 900           | 9.50   | 8,550         |       |        |
|         |              |                 |        |               | <u>1,500</u>  |        | <u>14,550</u> | 300   | 9.50   |
|         | 2,850        |                 |        |               |               |        |               |       |        |
|         | <u>1,600</u> |                 |        |               |               |        |               | 200   | 8.00   |
|         | <u>4,450</u> |                 |        |               |               |        |               |       |        |

#### iii. Weighted average (AVCO) method

| value | Qty | <u>Received</u> |               | <u>Issued</u> |       | Qty | price |
|-------|-----|-----------------|---------------|---------------|-------|-----|-------|
|       |     | price           | Balance value | price         | value |     |       |

|         | Kg           | per kg | K      | kg    | per kg | K      | kg    | per kg |
|---------|--------------|--------|--------|-------|--------|--------|-------|--------|
| 1 June  | 1,000        | 8.00   | 8,000  |       |        |        | 1,000 | 8.00   |
|         | <b>8,000</b> |        |        |       |        |        |       |        |
| 10 June |              |        |        | 800   | 8.00   | 6,400  | 200   | 8.00   |
|         | <b>1,600</b> |        |        |       |        |        |       |        |
| 16 June | 1,200        | 9.50   | 11,400 |       |        |        | 1,400 | 9.29   |
|         | 13,000       |        |        |       |        |        |       |        |
| 23 June | 600          | 10.00  | 6,000  |       |        |        | 2,000 | 9.50   |
|         | 19,000       |        |        |       |        |        |       |        |
| 28 June |              |        |        | 1,500 | 9.50   | 14,250 | 500   | 9.50   |
|         | <b>4,750</b> |        |        |       |        |        |       |        |

(b)

i. Number of orders =  $\frac{55,000}{2,200} = 25$  orders

Ordering cost =  $25 \times K15 = \mathbf{K375}$

Holding cost =  $\frac{2,200}{2} \times K1 = 1,100 \times K1 = \mathbf{K1,100}$

ii. Economic order quantity is the order quantity that minimizes ordering and holding costs.

iii.  $EOQ = \sqrt{2COD/CH}$   
 $= \sqrt{(2 \times 15 \times 55,000)/1}$   
 $= \mathbf{1,284 \text{ units}}$

## SOLUTION FOUR

### a) i) Absorption costing statement

|  |                  |                    |
|--|------------------|--------------------|
|  | K                | K                  |
| Sales  |                  | 1,500,000          |
| Opening inventory                                    | 277,500          |                    |
| Direct material                                      | 315,000          |                    |
| Direct labour  | 720,000          |                    |
| Variable production overhead                         | 90,000           |                    |
| Fixed production overhead                            | <u>135,000</u>   |                    |
|  | 1,537,500        |                    |
| Closing inventory                                    | <u>(140,000)</u> |                    |
| Cost of goods sold                                   |                  | <u>(1,397,500)</u> |
| Gross profit   |                  | 102,500            |
| Less: <b>Expenses:</b>                               |                  |                    |
| Sales and administration overheads (50,000 + 55,000) |                  | <u>(105,000)</u>   |
| <b>Net loss</b>                                      |                  | <u>(2,500)</u>     |

### ii) Marginal costing statement

|   |                  |                    |
|---|------------------|--------------------|
|   | K                | K                  |
| Sales                                       |                  | 1,500,000          |
| Opening inventory                           | 247,500          |                    |
| Direct material                             | 315,000          |                    |
| Direct labour                               | 720,000          |                    |
| Variable production overhead                | <u>90,000</u>    |                    |
|   | 1,372,500        |                    |
| Closing inventory                           | <u>(125,000)</u> |                    |
| Variable production cost                    |                  | <u>(1,247,500)</u> |
| Variable sales and administration overheads | <u>(55,000)</u>  |                    |
| Contribution                                |                  | 197,500            |
| Less: <u>Expenses:</u>                      |                  |                    |
| Fixed production overheads                  |                  | <u>(135,000)</u>   |
| Fixed sales and administration overheads    |                  | <u>(50,000)</u>    |
| <b>Net profit</b>                           |                  | <u>12,500</u>      |

## WORKINGS

### 1) Opening inventory

|                                     | <b>Absorption costing<br/>costing</b> | K      | <b>Marginal</b> |
|-------------------------------------|---------------------------------------|--------|-----------------|
|                                     | K                                     |        |                 |
| Direct materials                    | 6.50                                  |        | 6.50            |
| Direct labour                       | 16.25                                 |        | 16.25           |
| Variable production overheads (40%) | 2.00                                  |        | 2.00            |
| Fixed production overheads (60%)    | <u>3.00</u>                           |        | =               |
| Total cost per unit                 | <u>27.75</u>                          |        | <u>24.75</u>    |
| Number of units                     |                                       | 10,000 |                 |
| 10,000                              |                                       |        |                 |

|   |                           |                 |
|---|---------------------------|-----------------|
| Total inventory value                     | 277,500                   | 247,500         |
| <b>2) Closing inventory – 5,000 units</b> |                           |                 |
|   | <b>Absorption costing</b> | <b>Marginal</b> |
|   | <b>costing</b>            |                 |
|   | K                         | K               |
| Direct materials                          | 7.00                      | 7.00            |
| Direct labour                             | 16.00                     | 16.00           |
| Variable production overheads (40%)       | 2.00                      | 2.00            |
| Fixed production overheads (60%)          | <u>3.00</u>               | =               |
| Total cost per unit                       | <u>28.00</u>              | <u>25.00</u>    |
| Total inventory value                     | 140,000                   | 125,000         |

b) **Absorption costing**

| <b>Advantages</b>  | <b>Disadvantages</b>  |
|--|---|
| <ul style="list-style-type: none"> <li>• Consistent with external reporting requirements.</li> <li>• Fixed production costs are necessary parts of production cost to be considered.</li> <li>• Less fluctuation in profit when production is constant.</li> </ul> | <ul style="list-style-type: none"> <li>• Less useful for short term decision making as it is focused on full cost.</li> <li>• Cost volume profit relationship is not considered.</li> <li>• Can cause problems when sales are declining or if inventory suffers obsolesce.</li> </ul> |

## SOLUTION FIVE

(a) Contract Account for the period ending 31st March 2019

| Dr                      | Contract A/C             | Details            | Cr                       |
|-------------------------|--------------------------|--------------------|--------------------------|
| Details                 | K                        | Details            | K                        |
| Materials sent to site  | 6,450,000                | Materials Returned | 40,000                   |
| Labour                  | 5,480,000                | Materials in hand  | 140,000                  |
| Establishment Charge    | 325,000                  | Work-in-progress   |                          |
| Direct Expenses         | 240,000                  | Certified          | 14,300,000               |
| Accrued direct expenses | 20,000                   | Uncertified        | 340,000                  |
| Accrued Wages           | 180,000                  | Plant on site      | 820,000                  |
| Plant installed at site | 1,130,000                |                    |                          |
| Notional profit         | 1,815,000                |                    |                          |
|                         | <b><u>15,640,000</u></b> |                    | <b><u>15,640,000</u></b> |

Profit to be taken = Notional Profit  $\times \frac{2}{3} \times \text{Cash received/Value of work certified}$   
 = K1,815,000  $\times \frac{2}{3} \times \text{K13,000,000/14,300,000}$   
 = **K1,100,000**

(b) Variance calculations

(xv) Direct material variances

Price variances

|                              |                  |
|------------------------------|------------------|
|                              | K                |
| 33,350 kg should cost (x K5) | 166,750          |
| But did cost                 | <u>160,080</u>   |
| Price variance               | <u>6,670 (A)</u> |

Usage variance

|                                    |                  |
|------------------------------------|------------------|
| 11,500 units should use (x 2.8 kg) | 32,200 kg        |
| But did take                       | <u>33,350 kg</u> |
| Usage variance in kg               | 1,150 kg (A)     |
| X standard price per kg            | K5               |
| Usage variance                     | K5,750 (A)       |

(ii) Direct labour variances

Rate variance

|                                 |                |
|---------------------------------|----------------|
|                                 | K              |
| 2,275 hours should cost (x K80) | 182,000        |
| But did cost                    | <u>182,455</u> |
| Rate variance                   | <u>455 (A)</u> |

Efficiency variance

|  |                    |
|--|--------------------|
| 11,500 units should take (x 0.2 hours) | 2,300 hours        |
| But did take                           | <u>2,275 hours</u> |



|       |   |                     |
|-------|---|---------------------|
|       | Efficiency variance in hours            | 25 hours (F)        |
|       | X standard rate per hour                | <u>K80</u>          |
|       | Efficiency variance                     | <u>K2,000 (F)</u>   |
| (iii) | Fixed production overhead variances     |                     |
|       | Expenditure variance                    |                     |
|       |   | K                   |
|       | Budgeted fixed overhead expenditure     | 120,000             |
|       | Actual fixed overhead expenditure       | <u>112,700</u>      |
|       | Fixed overhead expenditure variance     | <u>7,300 (F)</u>    |
|       | Volume variance                         |                     |
|       | Budgeted volume                         | 12,000 units        |
|       | Actual volume                           | <u>11,500 units</u> |
|       | Volume variance in units                | 500 units (A)       |
|       | X standard fixed overhead cost per unit | K10                 |
|       | Fixed overhead volume variance          | <u>K5,000 (A)</u>   |

## SOLUTION SIX

(a) Stores ledger control account

| Dr            |                | Cr                   |                |
|---------------|----------------|----------------------|----------------|
| Details       | K              | Details              | K              |
| Creditors a/c | 182,000        | Creditors – Returns  | 2,000          |
|               |                | Work-in -progress    | 165,000        |
|               |                | Production overheads | 10,000         |
|               |                | Balance c/f          | 5,000          |
|               | <u>182,000</u> |                      | <u>182,000</u> |
| Balance b/d   | 5,000          |                      |                |

(b) Wages Control Account

| Dr                |                | Cr                   |                |
|-------------------|----------------|----------------------|----------------|
| Details           | K              | Details              | K              |
| Wages accrued a/c | 105,000        | Work-in-progress     | 145,000        |
| Tax Payable a/c   | 60,000         | Production overheads | 40,000         |
|                   |                |                      |                |
| Napsa a/c         | 20,000         |                      |                |
|                   | <u>185,000</u> |                      | <u>185,000</u> |

(c) Work-in-progress

| Dr                   |                | Cr                 |                |
|----------------------|----------------|--------------------|----------------|
| Details              | K              | Details            | K              |
| Stores Ledger a/c    | 165,000        | Finished goods a/c | 300,000        |
| Wages control a/c    | 145,000        | Balance c/f        | 150,000        |
| Production overheads | 140,000        |                    |                |
|                      | <u>450,000</u> |                    | <u>450,000</u> |
| Balance b/f          | 150,000        |                    |                |

(d) Production Overhead Control Account

| Dr                             |                | Cr  |                |
|--------------------------------|----------------|---|----------------|
| Details                        | K              | Details   | K              |
| Stores Ledger a/c              | 10,000         | Work-in-progress a/c                                    | 140,000        |
| Wages Control a/c              | 40,000         |   |                |
| NAPSA a/c                      | 25,000         |   |                |
| Expenses creditors a/c         | 41,000         |   |                |
| Provision for depreciation a/c | 30,000         | Balance – under recovery transferred to costing P&L a/c | 6,000          |
|                                | <u>146,000</u> |   | <u>146,000</u> |



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA 6: BUSINESS LAW

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FRIDAY 13 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:  
Section A: One (1) Compulsory scenario question.  
Section B: Five (5) Optional Questions. Attempt any 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.**

## SECTION A – (COMPULSORY)

Attempt all ten (10) multiple choice questions.

### QUESTION ONE

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

- 1.1 Which of the following statements correctly lists the stages of legislation in order?
- A. First reading; second reading; third reading; fourth reading; fifth reading.
  - B. First reading; second reading; committee stage; report stage; third reading; presidential assent.
  - C. First reading; second reading; third reading; report stage; presidential assent.
  - D. Green paper; white paper; committee stage; first reading; second reading.
- (2 marks)
- 1.2 Which three of the following must be included on a statement of written particulars of employment?
- (a) Names of employer and employee.
  - (b) Date on which employment began.
  - (c) Pay rate and intervals at which it is paid.
  - (d) Set holiday dates in the first year of employment.
  - (e) Details of disciplinary methods.
- A. (a), (b), (c)
  - B. (a), (b), (c), (d)
  - C. (a), (b), (d)
  - D. (a), (c), (d)
- (2 marks)
- 1.3 Which of the following remedies is not available for a breach of a contract to provide personal services?
- A. Damages.
  - B. A decree of specific performance.
  - C. An injunction.
  - D. An action for the price.
- (2 marks)

- 1.4 In which of the following is there a presumption that legal relations are intended?
- A. A promise by a father to make a gift to his son.
  - B. A commercial transaction.
  - C. A domestic arrangement.
  - D. A social arrangement.
- (2 marks)
- 1.5 It was an offence in England under the Street Offences Act of 1959 for prostitutes to "loiter or solicit in the street for the purposes of prostitution". The prostitutes in *Smith v Hughes, 1960*, avoided this by calling men in the street from balconies and tapping on windows. They were found guilty as charged. Which of the following rules of statutory interpretation was applied by the court to convict the prostitutes?
- A. The Literal rule.
  - B. The Golden rule.
  - C. The Mischief rule.
  - D. The Ejusdem generis rule.
- (2 marks)
- 1.6 William Gregory a professional plumber and fish pond management specialist based at Kabwata Market supplied MzeeNkunika with a booster pump for his bore hole. The pump was faulty and unable to supply water to the fish ponds. As a result the ponds dried up and the fish died. MzeeNkunika lost the fish and the profit he would have made if he had sold the fish. In which action may Nkunika sue William and succeed?
- A. Damages for breach of contract.
  - B. Damages for actual physical loss of fish due to William's negligence.
  - C. Damages for pure economic loss under the tort of professional negligence.
  - D. Damages for the profit and actual physical loss of the fish due to William's negligence.
- (2 marks)
- 1.7 The United Bank of Zambia intends sell three acres of land belonging to Zingalume College of Commerce which it had pledged as security for its 30,000 kwacha loan from United Bank of Zambia. Which of the following statutory exceptions to the 'nemo dat quod non habet' rule was invoked by the Bank?
- A. Sale by estoppel.
  - B. Sale under voidable title.
  - C. Sale under special common law powers.
  - D. Sale by an agent.
- (2 marks)
- 1.8 Jane and Joy became partners peeling and selling fresh pineapple fruits to bus passengers at the Inter-City Bus Terminus. But the City Council has now passed a by-law banning the exercise due to the cholera epidemic in the Capital City. The

partners wish to be advised as to the type of dissolution their partnership has faced with.

- A. Contractual dissolution.
- B. Dissolution by court.
- C. Automatic dissolution.
- D. Dissolution by mutual agreement.

(2 marks)

1.9 Kamayoyo worked for United Bus of Zambia. His wife was involved in a car accident and he asked for two days leave to nurse his wife, but this was denied. He reported late for work the following day and he was suspended. He resigned the following day. This termination of the contract of employment is

- A. Wrongful dismissal.
- B. Unfair dismissal.
- C. Constructive dismissal.
- D. Summary dismissal.

(2 marks)

1.10 The tenancy agreement stipulated that upon connection of the house to the national electricity grid, the house would be available for occupation. The tenant who had paid rent in advance was unable to occupy the house because the electricity supply company failed to have the premises connected with electricity. This tenancy agreement was discharged by

- A. Breach.
- B. Agreement.
- C. Frustration.
- D. Performance.

(2 marks)

**[Total: 20 Marks]**

## SECTION B

There are five (5) questions in this section. Attempt any four (4) questions.

### QUESTION TWO

- (a) While discussing the importance of Civic Education in secondary schools, two pupils of Munali High School, Kasapato and Limpo were told by their teacher that the Republican Constitution was the most important source of law in Zambia. When asked why, the teacher stated supremacy as the main reason and another reason she could not remember.

#### **Required:**

Apart from the reason given above by the teacher, identify the other reason and demonstrate how *Banda v the People 1998* supports the argument that the constitution is the most important source of law in Zambia. (10 marks)

- (b) Explain any five (5) elements of a partnership deed. (10 marks)

**[Total: 20 Marks]**

### QUESTION THREE

Mike is sitting with a group of his friends outside a restaurant by the river. He says that he will give K2,000,000 to anyone who can swim across the river. Mike puts the amount of the money on the table to show the seriousness of his challenge. Robert is not with Mike's group but is sitting at the table next to Mike. He hears the promise but does not say anything. Suddenly a child falls into the water from the other side of the river. Robert dives into the water and begins to swim to her rescue. As Robert is approaching the child, Mike shouts out: 'Don't think you are going to get my K2,000,000 because I am withdrawing the offer!' Robert nonetheless rescues the child and climbs out onto the other side of the harbor.

#### **Required:**

- (a) Explain whether Robert can claim the 2,000,000 from Mike under the law of contract. (10 marks)
- (b) Distinguish between a contract of service and a contract for services, and why this distinction is important. (6 marks)
- (c) Explain any two (2) requirements needed for agency by ratification to exist. (4 marks)

**[Total: 20 Marks]**

#### **QUESTION FOUR**

- (a) Andrew loves Dogs. He sees a lovely Germany Shepard in Musa's yard. Immediately, he starts to negotiate the buying of the dog. After two days, Musa agrees to sell and a price is agreed. After both dog and money had changed hands, Musa says to Andrew, "That's a fine Dog. It is free from any vice." However, the dog turns out to be particularly vicious! Andrew wants to sue Musa for breach of contract.

**Required:**

Explain to Andrew the type of consideration at play and state whether he will succeed in his legal action. (10 marks)

- (b) Jane is an efficient secretary while her boss Hams, is very forgetful. True to his name, Hams is busy attending meetings at a nearby conference center and has again completely forgotten that it's his wife's birthday. For Hams' safe return to his matrimonial home and out of Jane's own initiative, she dashes to a jewelry shop, Pay n' Pick, and obtains an impressive but expensive bungle, explaining to the sales man that, "it is for her boss." On his return to the office, Hams is greatly relieved and impressed by Jane's thoroughness and writes a cheque to Pay n' pick thereby paying for the bungle.

**Required:**

In terms of agency, explain the legal position above. (10 marks)

**[Total: 20 Marks]**

#### **QUESTION FIVE**

Jimmy Daka was employed as a driver by the Ministry of Health. He was placed under the supervision of a tough man, Guy Mbombo to whom he reported and left the keys with every day he knocked-off. Guy instructed him that whenever he went up country, he had to park the vehicle by 17 hours at the nearest police station. On a journey from Lusaka to Lundazi via Chipata, Jimmy decided that he would stay with his in-laws in Chipata before proceeding to Lundazi. His in-laws assured him that their premises were guarded ZAMCO, a renowned security firm in Chipata. On this assurance, he parked the government vehicle in the garage of his in-laws and slept in the Guest wing. He woke up to discover that all the tyres had been stolen at night. The security guard insists that he did not see or hear anything.

**Required:**

- (a) Render your legal advice to Jimmy as to who is liable for the loss of the tyres. (10 marks)
- (b) Distinguish between quality of fitness and fitness for purpose in relation to the Sale of Goods Act 1893. (10 marks)

**[Total: 20 Marks]**



## **QUESTION SIX**

Magaret is a highly sought after drop dead gorgeous musician. Her latest single 'Diva Slay' has gone platinum. To get her services, one has to book six months in advance. On the other side of town is Mabetta, an upcoming entrepreneur in the business of hair lotions. Six months ago, he hired the services of Margaret, at a ridiculously high price for the launch of a new hair product called 'Soul Glow.' He then proceeded to run expensive publicity campaigns on radio, TV, and bill boards to create awareness and promote the upcoming launch. Because Margaret was going to model at the launch, a lot of people were eager to attend. However, just a week to the launch, Margaret is involved in a gruesome car crash. As we speak, she is admitted to Fairview Hospital and there is no hope that she will be able to perform her singing duties for months to come. A lot of people are calling to cancel their attendance as Margaret will not be modelling. Mabetta is devastated and comes to you for help.

### **Required:**

- (a) Using your knowledge in law, explain to Mabetta the legal position as regards to the contract. (10 marks)
- (b) Explain any five (5) general defences in the law of torts. (10 marks)

**[Total: 20 Marks]**

**END OF PAPER**

## **DA6 - SUGGESTED SOLUTIONS**

### **SECTION A**

#### **SOLUTION ONE**

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

## **SOLUTION TWO**

- (a) The constitution is the most important source of law in Zambia for two reasons: firstly, it is the supreme law and the second reason the teacher forgot is that it creates organs of government. It is the supreme law from which other laws derive force, and any law that is not consistent with the constitution is null and void. Article 1(3) of the Constitution of Zambia expressly provides that 'This Constitution is the supreme law of Zambia and if any other law is inconsistent with this Constitution that other law shall, to the extent of the inconsistency, be void.'

In *Banda v the People, 1998*, the High Court struck down section 24(c) of the Penal Code Chapter 87 of the Laws of Zambia which provided for corporal punishment on the grounds that this section was unconstitutional as it offended Article 15 of the Constitution of Zambia which provided that *a person shall not be subjected to torture or to inhuman or degrading punishment or other like treatment*. The brief facts of the case are that on 14<sup>th</sup> November 1998 at about midnight, police were patrolling Mulamba Street in Libala Stage 4B in their motor vehicle, a Jetta. They met and challenged the appellant, who was in company of his friends to stop. The appellants and his friends did not stop, but ran away in different directions. The police gave chase and the appellant was apprehended. In the process of executing an arrest, the appellant became violent and broke the rear window of the police vehicle. The appellant pleaded guilty to, and was convicted of malicious damage to property. He was sentenced to one month simple imprisonment which was suspended for a period of twelve months, in addition to ten strokes of a cane. It is the latter part of the sentence that was appealed against successfully.

- (b) The elements of a partnership deed are:
- (i) Nature of the business-the nature of the partnership must be clearly stated in the deed to avoid the possibility of disputes as to what actually constitute the real business of the firm.
  - (ii) Name of the firm-the partnership must have a name which is any name which is in compliance with the law.
  - (iii) Duration-the date that the partnership commences must be stated and this date may be before the date of the agreement.

- (iv) Capital of the firm-the agreement must state the capital of the firm and how the partners will subscribe to this.
- (v) Division of profit-all partners is entitled to share equally on the profits of the firm unless they agree otherwise.
- (vi) Management- the partnership deed must state on whether all the partners are entitled to take part in the management of the partnership or not.
- (vii) Accounts-the deed must provide for the keeping of books of accounts as well as for preparing reports.
- (viii)** Retirement, Death and Resignation-the deed must state what would happen in the event a partner dies, resigns or retires.

### **SOLUTION THREE**

(a) This question invites candidates to examine the way in which contractual relations can come into existence. This is a unilateral contract –a contract which arises where one party promises something in return for some action on the part of another party; or an exchange of a promise for an act. Reward cases are typical examples of such cases. There is no compulsion placed on the party undertaking the action but if they carry out the task requested they will receive the reward offered. *Re Casey's Patents v. Casey (1892)*

The offer is the promise to pay whoever swims across the river. An offer is an undertaking, capable of acceptance and binding on particular terms. When the offer is accepted, a contract is formed. Other elements of a valid contract include consideration, intention to create legal relations, capacity and legality. The other issue that the scenario touches, is the withdrawal of the offer. An offer can be withdrawn at any time before acceptance, and by the time Mike withdraws the offer, Robert has already acted in a manner that acceptance is conducted in unilateral contracts, [*Carlill v. Carbolic Smoke Ball & Co. [1893]*].

Applying the foregoing Mike made the offer to his friends only and not to the whole world, therefore, Robert cannot claim as he was not part of the friends that were with Mike. Further, the purpose for which he dived swimming across to save the child and not in response to the offer. Further, since 'everyone' did not include Robert, it means Mike still had the right to revoke/withdraw the offer as none of his friends (the everyone) accepted it. On the above analysis, Robert would not claim the K2, 000,000 from Mike as the offer was not to the whole world, but the group of friends (everyone who sat with him).

(b) A person employed under a contract of service is an employee, while a person employed under a contract for service is an independent contractor. The employee puts his services at the disposal of the employer. He operates under the authority, control and supervision of the employer, who may prescribe what work is to be done; how, when and where it should be performed; and who may supervise the performance. The employer provides the employee with the goods required to perform his work. The employer is vicariously liable for the delicts committed by the employee against third parties in the course of employment.

A contract for services (*locatioconductiooperis*). The independent contractor undertakes to perform a certain job but does not operate under the control and supervision of the employer; he uses his own tools and discretion regarding the manner and time in which to complete the job. The means of achieving the task are left entirely up to the independent contractor. He does not operate under the employer's orders except in ensuring that the end product is acceptable to the employer. In this type of contract, the independent contractor is regarded as able to negotiate on an equal footing with the employer, and he therefore does not need the protection offered by employment law.

### **Tests for distinguishing the two types of contract**

The parties are expected to reach an express understanding as to whether or not there is a contract of employment, but their express intentions do not necessarily prevail. There are also borderline cases where it is not entirely clear whether the contract is a contract of service or one for services. The courts have on several occasions been called upon to resolve this issue and various tests have been laid down in different cases from various jurisdictions. These tests are: the control test; the organisation test; and the multiple tests. In *Mersey Docks and Harbour Board v. Coggins and Griffiths Ltd [1946]* it was held that the Board exercised sufficient control over how the operator of the crane did his job. According to this test, the employer must be able to control what work is done as well as where, when and how it is done. The importance of the distinction-The distinction is of crucial significance because different legal consequences flow from the two types of contract. These consequences include the following:

- (i) An employer must provide insurance for employees, but not for independent contractors.
- (ii) An employee is protected by the Employment Act as regards hours of work, number of leave days and maternity leave, but an independent contractor has no such protection.
- (iii) An employer must deduct tax on a PAYE basis from an employee's salary, but not from payments to an independent contractor.
- (iv) An employer is vicariously liable for acts of an employee, but not for acts of an independent contractor: *Bartonshill Coal Co. V. Mcguire [1853]*

(v) A dispute between an employer and an employee may be decided by the Industrial Relations Court, but the Industrial Relations Court has no jurisdiction to hear disputes involving independent contractors.

(c ) For agency by ratification to exist, the following element must be satisfied:

- (i) The principal must be in existence-the agent can't act for a principal who is not alive. Thus, the principal must be alive at the point the agent enter into a contract with the third party.
- (ii) The principal must have legal capacity-at the time or point the agent is acting on behalf on the principal, the principal must have capacity to ratify the contract.
- (iii) The agent must act in the best interest of the principal-the contract must be for the benefit or interest of the principal an not the agent
- (iv) The principal should be capable of being ascertained-
- (v) The principal must ratify the contract within a reasonable time
- (vi) The act by the agent should be legal for it to be ratified

## SOLUTION FOUR

- (a) One key element in Contract is consideration, which needs to pass from the promisor to the promisee. Furthermore, the said consideration need not be adequate but sufficient. However, past consideration is no consideration and does not vitiate a contract. Any undertaking after a contract has been concluded becomes past consideration. In the case of **Re McArdle 1951**, an undertaking to pay €488 after improvements had been done to a house was held to be past consideration. Equally, the statement that, "That's a fine dog. Its free from any vice." Said after money had changed hands is past consideration. In this case, it is past consideration and Andrew can not succeed in his action
- (b) In law, an agent is a person who is authorized to act on behalf of another person known as the principal. As thus, Agency denotes the legal relationship between an agent on one hand and the agent's boss, called the principal, on the other hand. The said agency relationship can be created in several ways such as Agency of necessity, agency arising expressly, agency arising impliedly, agency by estoppel as well as agency by ratification.
- Primarily, for one to be an agent of another, such a one has to be appointed by the principal. However, there are situations, like the scenario given, where an agent may not be appointed by the principal in the first place. When Jane realized that Hams had forgotten his matrimonial obligations, she went to Pay'n pick on her own initiative. She told them she was dealing for the boss. When Hams came back, he is relieved and happily pays the bill. In this regard, Jane is an agent by ratification. This is because, she did not have the authority to bind the boss to this contract, but Hams accepted the contract and made it his own.
- For one to be an agent by ratification, the agent must disclose who the principal is. Thus, where the principal is not disclosed or nonexistent, as was the case in **Kelner v Baxter 1866**, ratification is not possible. Equally, where ratification is not possible, the agent becomes personally liable.



## **SOLUTION FIVE**

- (a) When Daka disobeys lawful instructions of the employer, he is on a frolic of his own and is strictly liable for his actions or he may be dismissed for just cause- that is, instantly without notice or payment in lieu of notice. But if he succeeds to convince that court that the employer is vicariously liable on the basis that employers are liable for the wrongs committed by employees, then the employer will be vicariously liable for the wrongs committed by Daka. In this case, he is liable since he acted outside instructions given
- (b) Fitness for purpose arises when the buyer expressly or by implication indicates to the seller the purpose for which he is buying the goods. In which case the buyer relies on the seller's sense of judgment. In that case, there is an implied condition that the goods shall be fit for that purpose, and if that condition is breached, the contract of sale is repudiated, and the buyer may reject the goods.

## **SOLUTION SIX**

(a) The first assumption is that Magaret and Mabeta are business minded people. Therefore, they intend their agreements to be legally enforceable through the courts. In short, a valid contract exists between Magaret and Mabeta. However, this contract is frustrated in that it is practically impossible for it to be performed. For instance, in ***Taylor v Caldwell 1863***, the plaintiffs agreed to hire a music hall. Before the date of the planned concert, the music hall was destroyed by fire. The court held that the destruction by fire of the hall discharged both parties of their contractual obligations. Despite the foregoing, the courts take a strict approach in adjudging a contract to have been frustrated. In ***Davis Contractors Ltd v Fareham UDC 1956***, it was held that mere inconvenience and or disappointment does not amount to frustration.

The effect of frustration is that firstly; it brings a contract to an end thereby discharging parties from their contractual obligations. Secondly, monies that had changed hands before the frustrating event can be paid back, monies that were to be paid no longer become payable. In this case, the hiring fee that Mabeta paid should be refunded.

(b) The five general defences in tort are:

- Volenti non fit injuria or consent –one who has consented to a tortious act can sue on it. This defence is available under the tort of negligence.
- Contributory negligence –although the defendant is to blame, the plaintiff is also blameworthy. This is not a total defence but reduces the damages payable by the defendant.
- Statutory or common law justification – that the tort was approved by the statute, for example where sparks from a steam locomotive caused a fire that destroyed property on a certain land: it was held that the rail line to pass through that private land was approved by statute.
- Necessity – this is where a tortfeasor commits a tort to prevent greater harm. The defendant must show that there was imminent danger to the person or property, and that he acted reasonably in the prevailing circumstances.
- Accident – the defendant may plead that the tort committed was caused by an accident which occurred inspite of all reasonable precautions taken.
- Act of God – that the tort committed was not foreseeable and occurred beyond the contemplation of a reasonable man.
- Illegality –the defendant may plead that the plaintiff's cause of action relies on some illegal conduct. For example in *Thackwell v Barclays Bank, 1986*, Thackwell sued the Bank for conversion of a cheque he claimed to be entitled to. But the cheque represented proceeds of a fraud to which Thackwell was a party. It was held that Thackwell's claim was barred by illegality.



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL ONE

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DA 7: PRINCIPLES OF MANAGEMENT

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MONDAY 9 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:  
Section A: One (1) Compulsory question.  
Section B: Five (5) Optional Questions. Answer any 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.**

## SECTION A – COMPULSORY

Attempt all ten (10) multiple choice questions

### QUESTION ONE

Each of the following questions has only one correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Each question is allocated two (2) marks.

1.1 Contingency management is based on the belief that .....

- A. There is no one best way of managing and leading
- B. There is always one best way of managing and leading
- C. There is always one good employee in every organization
- D. Every manager can be the best if given the right human resource

(2 marks)

1.2 ..... organizations are organizations that are owned partly or wholly by the state. They are not a government department but a separate organization such as a corporation.

- A. Partnership
- B. Parastatals
- C. Non-Governmental
- D. Public Private Partnership

(2 marks)

1.3 .....is an organization culture which deals with a formal structure with well-established rules and procedures

- A. Power culture
- B. Role culture
- C. Person culture
- D. Task culture

(2 marks)

1.4 One of the following is a component of emotional leadership:

- A. Social skills
- B. Communication skills
- C. Interpersonal skills
- D. Intrapersonal skills

(2 marks)

1.5 Some changes are less transformational than others and others are easier to implement for example, change may not be triggered by

- A. A general sense that the organization could perform better
- B. A perceived need to improve organizational flexibility
- C. A sense that skills and abilities of people are under utilized
- D. Driving forces that oppose business operations

(2 marks)

1.6 According to Henry Mintzberg, in which category does the role of liaison belong?

- A. Informational
- B. Interpersonal
- C. Decisional
- D. Communicational

(2 marks)

1.7 In a co-operative, how many number of votes is each member entitled to during the Meeting?

- A. One vote for every five shares
- B. One vote for every one share
- C. One vote regardless of number of shares
- D. One vote for every unit of shares

(2 marks)

1.8 ..... is the term in business that answers the question "What

business are we in?"

- A. An objective
- B. A mission
- C. A vision
- D. A goal

(2 marks)

1.9 Which of the following is NOT a hygiene factor of motivation?

- A. Challenging work
- B. Salary
- C. Job security
- D. Working conditions

(2 marks)

1.10 Which of the following best explains commercialization of Parastatal companies?

- A. Provision of quality services or goods
- B. Operating at breakeven point
- C. Decentralization
- D. Having a profit oriented objective

(2 marks)

**[Total: 20 Marks]**

## **SECTION B**

**There are Five (5) questions in this section. Answer any FOUR (4) questions.**

### **QUESTION TWO**

The Director of Lincos Ltd Mr. Ntali cannot understand why the business has become slow. He decided to attend a workshop where he quoted the following statement, "As part of the process of strategic review and strategic planning, managers should make an assessment of micro and macro environments of their organizations. These assessments may take the form of a position of auditing and eventually help to reposition the organization with its competitors"

- (a) Define what is meant by a strategic business plan and identify the three strategic levels or layers in a large organization. (4 marks)
- (b) Explain how a SWOT analysis model is used to appraise the company. (4 marks)
- (c) Show how PESTEL analysis is used in analyzing the macro-environment in which the company operates. (12 marks)

**[Total: 20 Marks]**

### **QUESTION THREE**

Explain briefly how the following management theories have contributed to modern management.

- (a) Fredrick W. Taylor - Scientific management. (6 marks)
- (b) Henri Fayol - Administrative Management. (7 marks)
- (c) Max Weber - Bureaucracy. (7 marks)

**[Total: 20 Marks]**

### **QUESTION FOUR**

- (a) Mintzberg suggested that there are five (5) components in an organization which determine the way an organization operates.

#### **Required:**

Identify and briefly explain any four (4) components of an organization structure suggested by Mintzberg. (12 marks)

- (b) Motivation has been defined as any influence that triggers, directs or maintains goal oriented behavior. David McClelland developed a three (3) needs-based motivational model.

**Required:**

Identify and describe the two (2) of the needs suggested by McClelland. (8 marks)

**[Total: 20 Marks]**

**QUESTION FIVE**

(a) Globalization has opened more doors to international trade which has also resulted into stiffer competition among competitors. Use the following Rosa Beth arguments that bring success in business to help competitors fight the competition.

(i) Innovation (4 marks)

(ii) Entrepreneurship (4 marks)

(iii) Participative management (4 marks)

(b) Chungu has been appointed as the new marketing manager of a company where they have experienced a drop in business. Explain to him the four main activities that will assist in the identification of, 'anticipating and satisfying customer needs' in order to improve the sales. (8 marks)

**[Total: 20 Marks]**

**QUESTION SIX**

Peter Drucker once said that leaders are as good as the people they lead and cannot be better. To achieve this, a leader need to have skills to recruit the workers who are stable, fair minded and with foresight.

(a) Explain the purpose of the selection interviews. (8 marks)

(b) What importance would you attach to the following leadership traits in a leader that would benefit the organization?

(i) Initiative (3 marks)

(ii) Emotional stability (3 marks)

(iii) Fairness (3 marks)

(iv) Foresight (3 marks)

**[Total: 20 Marks]**

**END OF PAPER**



## **DA 7 SOLUTIONS**

### **SECTION A**

#### **SOLUTION ONE**

**Attempt all ten (10) multiple choice questions in this section**

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       |
| <b>A</b> | <b>B</b> | <b>B</b> | <b>A</b> | <b>D</b> | <b>B</b> | <b>C</b> | <b>B</b> | <b>A</b> | <b>D</b> |

## SECTION B

### SOLUTION TWO

a) **A Strategic business plan** is a plan that sets out the long term objectives of the business, and the strategies and policies that will be followed in order to achieve those objectives

Three strategic levels are;

- i. Corporate strategy
- ii. Business strategy
- iii. Functional or operational strategy

#### b) **SWOT Analysis**

An analysis of an organisation's strengths and weaknesses and its environmental opportunities and threats is necessary as a prelude to the development of a strategy

**Strengths** are those positive aspects or distinctive attributes or competencies, which provide a significant market advantage or upon which the organisation can build a competitive advantage. An example would be the present market positions of the company, staffing and skills, size, structure, managerial expertise, financial resources, etc.

**Weaknesses** are internal challenges that the organisation faces, preventing the successful implementation of the strategy. Some the weaknesses the firm may have include a weak financial base, poor production process being used by the company, weak human capital in the company and poor marketing systems. The strategy when developed shall aim to mitigate the impact the weaknesses have the company may have.

**Opportunities** are general events in the external environment beyond the immediate control of the organisation but do have a bearing on the organisation. The opportunities are those events or trends that have a potential positive effect on the organisation once exploited. Such events or trends may be political, economic, social/cultural, technological, ecological etc.

**Threats** are forces or trends outside the control of the organisation but have a potential impact of reducing the competitiveness of the company in the market. These are again in the external environment and may include developments in science and technology, which the company is ill prepared to respond to. Threats may include situations where a new product is introduced that immediately makes the company's products obsolete, its distribution network irrelevant, new production methods that make the company's competitors more efficient and effective than the company. The strengths of the company combined with the opportunities may be used to neutralise the impact of the threats in the environment.

c)

- **Political analysis**-A change in the strategy may be caused by an unexpected political crisis.
- **Economical analysis** -economical changes such as economical depression or low product demand and consumer income.
- **Social and Culture analysis** - a change in public attitudes and opinions might persuade an organization to alter its strategy
- **Technological analysis** - Companies need to adapt to new technologies to continue to succeed in their business.
- **Ecological analysis** – climatical and weather conditions may change and force the company to reconsider the location or product diversifications.
- **Legal analysis** – Major changes in the land laws can force the company to alter the operations. E.g. labor or employment laws

### **SOLUTION THREE**

a) Fredrick W. Taylor- Scientific management

The theory contribution on time, motion and work study, division of work, and the reward system approach. The manager must think and plan.

b) Henri Fayol- Administrative Management

The theory contributed on the organization structures and management according to certain rational principle. Fayol also introduced five functions of management and 14 principles of management.

c) Max Weber- Bureaucracy.

The theory brought in the understanding on co-ordination of human activities based on hierarchy of authority, work structures and flow of information. It also emphasized on procedures and rules of conduct.

### **SOLUTION FOUR**

a)

- Public corporations owned or partly owned by the state
- Profit motive limited by the state
- Provides goods and services at reasonable prices
- They obtain capital from the government
- Political influence in the operations is strong
- The state sets a Board of directors to observe accountability

b)

- Public sector organizations are accountable to the government and rely on government for most or all of their funding, while public limited sectors organizations do not.
- Prime objective of the Public sector organization is to provide benefits to the public at not profit, while private sector they do it for a profit

c)

- Established to provide services to the community and do not seek to make a profit
- May be funded by members or by donations
- Tend to be democratic with elected officials, who may also act as managers of the organizations

## **SOLUTION FIVE**

a)

- i. Innovation-by creating new products, services and operating methods that will meet the international standards and segmentation of the markets to meet the needs of particular customer.
- ii. Entrepreneurship by taking the business risks that will allow the organizational as to open up in new regions.
- iii. Participative management-this encourages all employees to participate in decision making about work, which will allow for new ideas to flow in the organization and improve the work culture as well as production

b)

- i. Sales and sales support- use of sales and marketing functions including selling, persuading customers to buy the products or services offered by the organization. Selling including face to face selling, sell by telephone, SALES PROMOTIONS, exhibition etc.
- ii. Marketing communication- activities that bring products and services to the attention of customer's e.g. Use of brochures, catalogues adverts and sales promotion,
- iii. Operating marketing- activities such as market research branding and all management and customer relationship management.
- iv. Strategic marketing- involves marketing at strategic level for large companies. Involves the preparation I a way a firm effectively differentiates itself from its competitors by capitalizing on its strengths to provide consistently better value to customers than its competitors. This calls for the company to capitalize on its strengths.

## **SOLUTION SIX**

- a) Explain the purpose of the selection interviews
  - i. Finding the best person for the job
  - ii. Making sure that the applicant understand what the job involves
  - iii. Giving the possible best impression of the organization as the prospective employer

b)

- i. Initiative-power or opportunity to act before others being resourceful by using your talents to full capacity willingly.
- ii. Emotional stability- A person's ability to remain stable and balanced. Remaining calm in the midst of anxiety in order to serve the people with less emotional impact or involvement.
- iii. Fairness - Equality and stability at all times being impartial and just treatment or behavior without favoritism or discrimination.
- iv. Foresight- the ability to predict what will happen or be needed in the future, anticipation or being vigilant.

**END OF SOLUTIONS**



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL TWO

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DA 8: FINANCIAL REPORTING

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MONDAY 9 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

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

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

## SECTION A-TWO COMPULSORY QUESTIONS

Both Questions in this Section are compulsory and must be attempted.

### QUESTION ONE

On 1 April 2018 Cat Plc acquired 80% of Dog Plc equity shares in a share exchange of one share in Cat for every two shares in Dog. The market prices of Cat's and Dog's shares at the date of acquisition were K9 and K6 respectively. Dog's retained earnings at the date of acquisition were K82,500,000. In addition to this Cat agreed to pay a further amount on 1 April 2019 that was contingent upon the post-acquisition performance of Dog. At the date of acquisition Cat assessed the fair value of this contingent consideration at K21,000,000, but by 31 March 2019 it was clear that the actual amount to be paid would be only K13,500,000 (ignore discounting). Cat has recorded the share exchange and provided for the initial estimate of K21,000,000 for the contingent consideration.

On 1 October 2018 Cat also acquired 40% of the equity shares of Bat Plc paying K4 in cash per acquired share and issuing at par one K100 (7% loan note) for every 50 shares acquired in Bat. This consideration has also been recorded by Cat. Bat's retained earnings at the date of acquisition were K75,000,000. Cat has no other investments. The summarised statements of financial position of the three companies at 31 March 2019 are:

|                                | <b>Cat</b><br><b>K' 000</b> | <b>Dog</b><br><b>K' 000</b> | <b>Bat</b><br><b>K' 000</b> |
|--------------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Non-current assets</b>      |                             |                             |                             |
| Property, plant & equipment    | 187, 500                    | 122,500                     | 105,000                     |
| Investments in Dog and Bat     | <u>225,000</u>              | <u>-</u>                    | <u>-</u>                    |
|                                | <u>412,500</u>              | <u>122,500</u>              | <u>105,000</u>              |
| <b>Current assets</b>          |                             |                             |                             |
| Inventory                      | 50, 000                     | 45, 000                     | 25, 000                     |
| Trade receivables              | <u>32, 500</u>              | <u>7, 500</u>               | <u>15, 000</u>              |
|                                | <u>82, 500</u>              | <u>52, 500</u>              | <u>40, 000</u>              |
| Total Assets                   | <u>495,000</u>              | <u>175,000</u>              | <u>145,000</u>              |
| <b>Equity</b>                  |                             |                             |                             |
| Ordinary Shares (K1 each)      | 125,000                     | 40,000                      | 25,000                      |
| Share Premium                  | 99,000                      | -                           | -                           |
| Retained Earnings              | <u>136,000</u>              | <u>87,500</u>               | <u>105, 000</u>             |
|                                | <u>360,000</u>              | <u>127,500</u>              | <u>130, 000</u>             |
| <b>Non-current liabilities</b> |                             |                             |                             |
| 7% Loan Notes                  | 72, 500                     | 10, 000                     | -                           |
| Contingent Consideration       | 21,000                      | -                           | -                           |
| <b>Current Liabilities</b>     |                             |                             |                             |
| Trade payables                 | <u>41, 500</u>              | <u>37, 500</u>              | <u>15, 000</u>              |
| Total liabilities              | <u>135, 000</u>             | <u>47, 500</u>              | <u>15, 000</u>              |
| Total equity and liabilities   | <u>495, 000</u>             | <u>175, 000</u>             | <u>145, 000</u>             |

The following information is relevant to the preparation of the group financial statements:

- (i) At the date of acquisition the fair value of Dog's property, plant and equipment was equal to its carrying amount with the exception of Dog's plant which had a fair value of K10,000,000 above its carrying amount. Dog has not adjusted the carrying amount of the plant as a result of the fair value exercise. The plant had remaining useful life of 20 years at the date of acquisition.



- (ii) Also at the date of acquisition, Dog had a brand which had a fair value of K2,500,000 below its carrying value. Shortly after acquisition, Cat's directors used an independent professional expert to value the brand and the expert found the brand to have no recoverable amount and Dog wrote it off.
- (iii) At 31 March 2019 Cat's current account with Dog was K17,000,000 (debit). This did not agree with the equivalent balance in Dog's books due to some goods in transit invoiced at K9,000,000 that were sent by Cat on 30 March 2019, but had not been received by Dog until after the year end. Cat sold all these goods at a mark-up of 25%.
- (iv) Cat's policy is to value the non-controlling interest at fair value at the date of acquisition. For this purpose Dog's share price at that date can be deemed to be representative of the fair value of the shares held by the non-controlling interest.
- (v) Impairment tests were carried out on 31 March 2019 which concluded that the investment in Bat was impaired by 20% and goodwill was impaired by K19,000,000, due to poor trading performance.
- (vi) Assume all profits accrue evenly through the year.

**Required:**

Prepare Cat group consolidated statement of financial position as at 31 March 2019.

**[Total: 25 Marks]**

**QUESTION TWO**

The following trial balance relates to Maamba Minerals Ltd (MML). at 31 December 2018

|   | 'K'              | 'K'              |
|---|------------------|------------------|
| Revenue   |                  | 1,890,000        |
| Cost of sales   | 972,000          |                  |
| Preference dividends paid                                       | 10,500           |                  |
| Trade payables  |                  | 150,495          |
| Bank  | 12,900           |                  |
| Trade receivables   | 153,600          |                  |
| Inventory at 31 December 2018                                   | 58,800           |                  |
| Administrative expenses   | 46,800           |                  |
| Distribution costs  | 59,400           |                  |
| 7% preference shares of K1 each                                 |                  | 154,500          |
| Share capital of K1 each  |                  | 350,000          |
| Share premium   |                  | 40,000           |
| Land and buildings at valuation                                 | 900,000          |                  |
| Plant and equipment at cost                                     | 531,170          |                  |
| Accumulated depreciation: plant and Equipment at 1 January 2018 |                  | 126,800          |
| Revaluation reserve at 1 January 2018                           |                  | 150,000          |
| Retained Earnings at 1 January 2018                             |                  | 46,500           |
| Income tax  | 2,625            |                  |
| Deferred tax  |                  | 31,500           |
| Interim equity dividend paid                                    | 105,000          |                  |
| Lease rental  | 87,000           |                  |
|   | <u>2,939,795</u> | <u>2,939,795</u> |

The following additional information is relevant:

- (i) Land and Buildings were revalued to K900,000 (land K200,000) from their previous carrying amount of K750,000 on 1 January 2018. This revaluation has already been recorded. However, the depreciation expense on the property for the year to 31 December 2018 is yet to be accounted for. On the date of revaluation, buildings had a remaining estimated life of 35 years.

Owned plant and equipment are depreciated at 20% reducing balance method.

- (ii) On 1 January 2018, MML acquired a machine via a lease agreement. The lease was for a three year term with annual payments of K87,000. The first payment was made on 31 December 2018 and has been included in the above trial balance with no other entries made. The present value of the lease payments at 1 January 2018 was K216,000. Under the terms of the lease, MML has the option to purchase the machine at reasonable price at the end of the lease term. The machine has an estimated useful life of six years. The interest rate implicit in the lease is 10%.

Depreciation of plant and leased machines are to be charged to cost of sales whereas buildings depreciation is an administrative expense.

- (iii) The 7% preference shares were issued at par on 1 January 2017 for K150,000. They are redeemable at a large premium which gives them an effective finance cost of 10% per annum.
- (iv) The directors of MML have estimated the provision for income tax for the year to 31 December 2018 at K17,100. The required deferred tax provision at the year-end under review is K21,000 and all adjustments to deferred tax should be taken to the statement of profit or loss. The balance of current tax in the trial balance represents the under/over provision of income tax liability for the year ended 31 December 2017.
- (v) During the year, 100,000 shares were issued at a premium of K0.40 per share. This share issue is reflected in the trial balance above.
- (vi) Directors of MML declared a final dividend of K0.30 per share on 22 December 2018 for all shares in issue on 31 December 2018. Financial statements were approved for issue to shareholders on the 31 March 2019.

**Required:**

- (a) Prepare the statement of profit or loss and other comprehensive income for MML for the year ended 31 December 2018. (9 marks)
- (b) Prepare the statement of financial position of MML as at 31 December 2018. (13 marks)
- (c) Prepare the statement of changes in equity for the year ended 31 December 2018. (3 marks)

**[Total: 25 Marks]**

## SECTION B

There are **THREE (3)** questions in this section. Attempt any **TWO (2)** questions.

### **QUESTION THREE**

You are the financial accountant for Zam-cargo distributors and the chief financial controller has requested you to prepare the statement of cash flows using IAS 7 indirect method. The summarised statements of financial position as at 31 March 2019 and 31 March 2018 are:

|                                    | 2019<br>K' 000       | 2018<br>K' 000      |
|------------------------------------|----------------------|---------------------|
| <b>Non-current assets</b>          |                      |                     |
| Property, plant and equipment      | 4,625                | 3,685               |
| Development expenditure            | <u>1,450</u>         | <u>800</u>          |
|                                    | <b>6,075</b>         | <b>4,485</b>        |
| <b>Current assets</b>              |                      |                     |
| Inventories                        | 1,800                | 1,135               |
| Trade receivables                  | 1,370                | 1,620               |
| Investments                        | 715                  | 230                 |
| Cash                               | <u>145</u>           | <u>585</u>          |
|                                    | <b>4,030</b>         | <b>3,570</b>        |
| Total assets                       | <b><u>10,105</u></b> | <b><u>8,055</u></b> |
| <b>Equity</b>                      |                      |                     |
| Share capital – K1 ordinary shares | 2,500                | 2,000               |
| Share premium                      | 1,750                | 500                 |
| Revaluation surplus                | 800                  | 300                 |
| Retained earnings                  | <u>1,145</u>         | <u>1,275</u>        |
|                                    | <b>6,195</b>         | <b>4,075</b>        |
| <b>Non-current liabilities</b>     |                      |                     |
| 6% debentures                      | 750                  | 500                 |
| Lease obligations                  | 500                  | 400                 |
| Deferred tax                       | <u>240</u>           | <u>225</u>          |
|                                    | <b>1,490</b>         | <b>1,125</b>        |
| <b>Current liabilities</b>         |                      |                     |
| Trade payables                     | 1,370                | 1,760               |
| Lease obligation                   | 85                   | 60                  |
| Current tax                        | 280                  | 765                 |
| Debenture interest                 | 25                   | –                   |
| Bank overdraft                     | <u>660</u>           | <u>270</u>          |
|                                    | <b>2,420</b>         | <b>2,855</b>        |
| Total equity and liabilities       | <b><u>10,105</u></b> | <b><u>8,055</u></b> |

The chief financial controller has provided the following relevant information to help you prepare the statement of cash flows.

- (i) For the year ended 31 March 2019, ordinary shares dividends paid were K1,030,000, income tax expense was K810,000 and finance cost was K75,000.
- (ii) During 2019 an item of property, plant and equipment with a carrying amount of K515,000 were sold for K550,000. Profit or loss on disposal was included in operating

expenses. Depreciation charged in the year on property, plant and equipment totalled K285,000 and was charged to operating expenses. Zam-cargo purchased property with fair value of K280,000 by means of a lease, payments being made in arrears on the last day of each accounting period.

- (iii) For the year ended 31 March 2019, amortisation of K300,000 was charged on development projects and was charged to operating expenses.
- (iv) The current asset investments are government bonds and management has decided to class them as cash equivalents.
- (v) During the year Zam-Cargo made a bonus issue of 1 for 8 shares and the issue was funded from the share premium, followed by a rights issue.
- (vi) The new debentures were issued on 1 April 2018. Finance cost includes debenture interest and finance lease finance charges only.

**Required:**

- (a) Prepare Zam-cargo's statement of cash flows for the year ended 31 March 2019 using IAS 7 indirect method. (22 marks)
- (b) Explain the importance of Earnings Per Share (EPS) as a measure of performance for Zam-cargo. (3 marks)

**[Total 25 Marks]**

**QUESTION FOUR**

- (a) You are the Financial Accountant for Mark Ltd, a company that owns Machinery that it uses to manufacture heavy duty equipment for its clients who are mainly road construction contractors. Mark Ltd bought its machinery on 1 January 2015 for K100,000 at which time the company estimated the assets to have an economic useful life of 10 years with nil residual value.

Mark Ltd prepares its financial statements to 30 September each year.

On 31 March 2018, Mark Ltd's machinery broke down due to a part that malfunctioned and it has been a challenge to repair it. The machine is still operational but with reduced output. A customer has offered to buy it for K50,000 and Mark Ltd estimates it would realize discounted cash flows amounting to K65,000 from the machinery over its remaining life.

**Required:**

You are required to explain to your newly recruited members of your department, in accordance with IAS 36 impairment of assets:

- (i) Two internal indicators of impairment loss of assets (2 marks)

- (ii) Accounting treatment of the machinery for the year ended 30 September 2018, clearly showing financial statements extracts. (4 marks)

- (b) *IAS 37 Provisions, Contingent liabilities and Contingent Assets* prescribes the recognition criteria for provisions.

Kwita Plc.'s accounting year end is 30 September 2018. On 5 August 2018, directors of Kwita decided to restructure the business and created a detailed formal plan for the restructuring program which by 30 September 2018, had been communicated to all those affected by the restructuring.

Additionally, directors estimated the restructuring costs as follows:

| Cost                                       | K'000 |
|--|-------|
| Retraining staff in their new positions    | 600   |
| Redundancy packages payment                | 9,200 |
| Re-alignment of IT systems to new business | 3,400 |

**Required:**

- (i) Explain specific conditions that must be fulfilled for restructuring provision to be made. (3 marks)
- (ii) Calculate the amount of the provision that KwitaPlc should make as at 30 September 2018, giving an explanation for your answer. Your answer must include explanation of disallowed expenses. (6 marks)
- (c) *IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors* prescribes what constitutes a policy, an estimate and an error including their accounting treatment.

**Required:**

Define the following, giving two examples of each and explanation of the way their changes are accounted for in financial statements in accordance with *IAS 8*.

- (i) Accounting policies (5 marks)
- (ii) Accounting estimates (5 marks)

**[Total: 25 Marks]**

**QUESTION FIVE**

- (a) A 'conceptual framework' in the context of financial reporting is a statement of generally accepted reporting principles which form the frame of reference for financial reporting. Some of the issues discussed in the IASB's *Conceptual Framework for Financial Reporting* include:

- (i) The objective of financial statements  
(ii) Qualitative characteristics of financial statements  
(iii) Measurement of elements of financial statements  
(iv) Concepts of capital and capital maintenance

**Required:**

- (i) Explain three main advantages of a conceptual framework. (3 marks)
  - (ii) Explain what is meant by relevance and faithful representation as characteristics of useful financial information (4 marks)
  - (iii) Explain how the accounting treatment applied to bearer plants differs from that applied to other biological assets. (4 marks)
  - (iv) Briefly explain the meaning of the two commonly used concepts of capital and capital maintenance (3 marks)
- (b) IFRS 16 Leases governs the accounting treatment for leases. Lessee accounting uses the right-of-use principle.

**Required:**

Explain the accounting treatment for long-term leases under IFRS 16 as a lessee. (5 marks)

- (b) Public sector organisations in Zambia such as public universities have been criticised by key stakeholders such as tax payers, citizens and government for not providing value for money (VFM) services. As mitigation measure government issued a directive to all public sector organisations to provide value for money (VFM) services and prepare annual VFM reports.

**Required:**

Explain the meaning of value for money (VFM) and Identify three key performance measurement indicators for a public university.

(6 marks)

**[Total: 25 Marks]**

**END OF PAPER**

## DA8 SOLUTIONS

### SOLUTION ONE

#### Cat group consolidated statement of financial position as at 31 March 2019

|   | K' 000         | K' 000         |
|---|----------------|----------------|
| ASSETS  |                |                |
| Non-current assets  |                |                |
| Property, plant and equipment<br>187,500+122,500+10,000-500w2 | 319,500        |                |
| Goodwill w3           83,000-19,000                           | 64,000         |                |
| Associate w7  | <u>52,800</u>  |                |
|   |                | 436,300        |
| Current assets  |                |                |
| Inventory   50,000+45,000+9,000-1,800w4                       | 102,200        |                |
| Trade receivables   32,500+7,500-17,000w8                     | <u>23,000</u>  |                |
|   |                | <u>125,200</u> |
| Total assets  |                | <u>561,500</u> |
| Equity  |                |                |
| Share capital   | 125,000        |                |
| Share premium   | 99,000         |                |
| Retained Earnings w5  | <u>124,900</u> |                |
|   |                | 348,900        |
| Non-controlling interest w6                                   |                | 45,600         |
| Liabilities   |                |                |
| Non-current liabilities                                       |                |                |
| 7% loan notes       72,500+10,000                             | 82,500         |                |
| Contingent liability  | <u>13,500</u>  |                |
|   |                | 96,000         |
| Current liabilities   |                |                |
| Trade payables       41,500+37,500+9,000w8<br>-17,000w8       |                | <u>71,000</u>  |
| Total equity and liabilities                                  |                | <u>561,500</u> |

## Workings

### W1: Group structure

Cat 80% in Dog                      NCI = 20% in Dog  
 Cat 40% in Bat

### W2: Net assets table for Dog

|                         | @ ACQ<br>000   | @SOPF<br>000           |
|-------------------------|----------------|------------------------|
| S/Capital               | 40, 000        | 40, 000                |
| S/premium               | -              | -                      |
| R/Earnings              | 82, 500        | 87, 500                |
| Plant fair value        | 10, 000        | 10, 000                |
| Dep on plant fair value | -              | (500) = 10,000/20years |
| Brand fair value        | <u>(2,500)</u> | <u>0</u>               |
|                         | <u>130,000</u> | <u>137, 000</u>        |

Post acq retained earnings              137, 000 – 130, 000 = 7, 000

Cat share: 7, 000 @ 80% = 5, 600

NCI share: 7, 000 @ 20% = 1, 400

### W3: Goodwill at acquisition of Dog (Max 3 marks)

|  |                  |
|--|------------------|
| Fair value of parent consideration:                      | 000              |
| Share exchange 40, 000 @80% = 32, 000 X ½ = 16, 000 @ K9 | 144, 000         |
| Contingent consideration                                 | 21, 000          |
| Fair value of NCI 40, 000 @20% = 8, 000 @ K6             | 48, 000          |
| Less fair value of net assets acquired w2                | <u>(130, 00)</u> |
| Goodwill   | <u>83,000</u>    |

### W4: Unrealised profit

|                               |        |                       |
|-------------------------------|--------|-----------------------|
| Parent sold                   | 000    | Dr: R/Earnings 1, 800 |
| Selling price 9, 000 X 25/125 | 1, 800 | Cr: Inventory 1, 800  |

### W5: Parent/group retained earnings (Max 3 marks)

|  |                 |
|--|-----------------|
| Parent fig   | 000             |
| Share from Dog w2  | 136, 000        |
| Share from Bat [(105, 000 – 75, 000) X 6/12 @40%]            | 5, 600          |
| Less Unrealised profit w4                                    | 6, 000          |
| Less goodwill impairment 19, 000 X 80%                       | (1, 800)        |
| Investment impairment (66, 000 X 20%) w7                     | (15, 200)       |
| Add decrease in contingent consideration (21, 000 – 13, 500) | (13, 200)       |
|  | <u>7, 500</u>   |
|  | <u>124, 900</u> |



|   |                |
|---|----------------|
| <b>W6: Non-controlling interest</b>     | 000            |
| Fair value of NCI at acq                | 48,000         |
| Share from Dog w2                       | 1,400          |
| Less goodwill impairment (19,000 X 20%) | <u>(3,800)</u> |
|   | <u>45,600</u>  |

|   |                 |
|---|-----------------|
| <b>W7: Value of investment in an associate</b>  | 000             |
| Value at acquisition:                           |                 |
| Cash (25,000 X 40% = 10,000 @ K4)               | 40,000          |
| 7% Loan note (10,000/ 50 = 200 @ K100)          | 20,000          |
| Share from Bat [(105,000 – 75,000) X 6/12 @40%] | <u>6,000</u>    |
|   | 66,000          |
| Investment impairment (66,000 X 20%)            | <u>(13,200)</u> |
|   | <u>52,800</u>   |

|   |        |
|---|--------|
| <b>W8: Intra group items/transactions</b> | 000    |
| Dr: Inventory                             | 9,000  |
| Cr: Trade payables                        | 9,000  |
| Cr: Trade receivables                     | 17,000 |
| Dr: Trade payables                        | 17,000 |
| Dr: R/earnings                            | 1,800  |
| Cr: Inventory                             | 1,800  |

## Consolidation process

### SOLUTION TWO

#### a) MML Statement of profit or loss and other comprehensive income for the year ended 31 December 2018.

|                                       |                    |
|---------------------------------------|--------------------|
|                                       | 'K'                |
| Revenue                               | 1,890,000          |
| Cost of sales (w7)                    | <u>(1,088,874)</u> |
| Gross profit                          | 801,126            |
| Administrative expenses (w7)          | (66,800)           |
| Distribution costs                    | <u>(59,400)</u>    |
| Operating profit                      | 674,926            |
| Finance cost (21,600 w3 + 15,450 w2)  | <u>(37,050)</u>    |
| Profit before tax                     | 637,876            |
| Income tax (w4)                       | <u>(9,225)</u>     |
| Profit for the year                   | 628,651            |
| Other comprehensive income:           |                    |
| Revaluation surplus (900,000-750,000) | <u>150,000</u>     |
| Total comprehensive income            | <u>778,651</u>     |

#### b) MML Statement of Financial Position as at 31 December 2018

|                               |                |
|-------------------------------|----------------|
|                               | 'K'            |
| <b>Non current Assets</b>     |                |
| Property, plant and Equipment | 1,203,496      |
| Right of Use Asset            | <u>180,000</u> |

Total non current assets 1,383,496

### Current Assets

|                      |                  |
|----------------------|------------------|
| Inventory            | 58,800           |
| Receivables          | 153,600          |
| Bank                 | <u>12,900</u>    |
| Total Current Assets | <u>225,300</u>   |
| Total Assets         | <u>1,608,796</u> |

### Equity and Liabilities

|                              |                  |
|------------------------------|------------------|
| Equity                       |                  |
| Share capital                | 350,000          |
| Share premium                | 40,000           |
| Revaluation reserve          | 150,000          |
| Retained earnings (answer c) | <u>570,151</u>   |
| Total equity                 | <u>1,110,151</u> |

### Non current liabilities

|                               |                |
|-------------------------------|----------------|
| 7% preference share capital   | 159,450        |
| Deferred tax                  | 21,000         |
| Lease obligation              | <u>78,660</u>  |
| Total non current liabilities | <u>259,110</u> |

### Current Liabilities

|                              |                  |
|------------------------------|------------------|
| Trade payables               | 150,495          |
| Income tax payable           | 17,100           |
| Lease obligation             | <u>71,940</u>    |
| Total current liabilities    | <u>239,535</u>   |
| Total equity and liabilities | <u>1,608,796</u> |

### c) MML statement of changes in equity as at 31 December 2018

|                    | Share<br>Capital<br>'K' | share<br>premium<br>'K' | Revaluation<br>Reserve<br>'K' | Retained<br>Earnings<br>'K' |
|--------------------|-------------------------|-------------------------|-------------------------------|-----------------------------|
| Balances b/f       | 250,000                 | -                       | -                             | 46,500                      |
| Issue of shares    | 100,000                 | 40,000                  | -                             | -                           |
| Total comp. Income | -                       | -                       | 150,000                       | 628,651                     |
| Dividends paid     | -                       | -                       | -                             | <u>(105,000)</u>            |
| Balances c/f       | <u>350,000</u>          | <u>40,000</u>           | <u>150,000</u>                | <u>570,151</u>              |

### WORKINGS

#### 1. Property, Plant and equipment

|                         | Land    | buildings | owned<br>Plant | leased<br>Machine |
|-------------------------|---------|-----------|----------------|-------------------|
|                         | 'K'     | 'K'       | 'K'            | 'K'               |
| Cost/valuation b/f      | 200,000 | 700,000   | 531,170        | -----             |
| Additions               | --      | ---       | ---            | 216,000           |
| Less accumulated depr'n | --      | ---       | (126,800)      | ---               |
| Carrying amounts b/f    | 200,000 | 700,000   | 404,370        | 216,000           |

|                       |                |                |                |                |
|-----------------------|----------------|----------------|----------------|----------------|
| Depreciation expense: |                |                |                |                |
| (20% x 404,370        | --             | ---            | (80,874)       | ---            |
| (700,000/35 yrs)      | --             | (20,000)       | ---            | --             |
| (216,000/6yrs)        | --             | ---            | ---            | (36,000)       |
| Carrying amounts c/f  | <u>200,000</u> | <u>680,000</u> | <u>323,496</u> | <u>180,000</u> |

Total carrying amount of PPE 1,383,496 (200,000 +680,000+323,496+180,000)

## 2. 7% preference shares

|   |                       |
|---|-----------------------|
| Nominal value on issue date of 1.1.2017   | 150,000               |
| Add effective interest (10% x 150,000)    | 15,000                |
| Less nominal interest paid (7% x 150,000) | (10,500)              |
| Carrying amount at 31.12.2017             | 154,500               |
| Add effective interest (10% x 154,500)    | 15,450 to P/L         |
| Less nominal interest paid (7% x 150,000) | (10,500)              |
| Carrying amount at 31 December 2018       | <u>159,450</u> to SFP |

## 3. ROUA lease obligations table

|              | Balance b/f<br>'K' | interest @10%<br>'K' | rental<br>'K' | balance c/f<br>'K' |
|--------------|--------------------|----------------------|---------------|--------------------|
| 1 January 18 | 216,000            | 21,600               | (87,000)      | 150,600            |
| 1 January 19 | 150,600            | 15,060               | (87,000)      | 78,660             |

Current liability 71,940 (150,600 – 78,660)

Non current liability = 78,660

## 4. Income tax provision

|                         |        |
|-------------------------|--------|
| Current tax             |        |
| Balance c/f             | 17,100 |
| Add under provision b/f | 2,625  |
| Profit and loss charge  | 19,725 |

Deferred tax

|                          |          |
|--------------------------|----------|
| Balance c/f              | 21,000   |
| Less balance b/f         | (31,500) |
| Credit to profit or loss | (10,500) |

Net charge to profit or loss 9,225 (19,725 -10,500)

OR

### Income tax account

|                 |               |                 |               |
|-----------------|---------------|-----------------|---------------|
| Balance b/f D.T | 'K'           | Balance b/f     | 'K'           |
| Balance c/f D,T | 2,625         | profit and loss | 31,500        |
| Balance c/f C.T | 21,000        |                 | 9,225         |
|                 | <u>17,100</u> |                 | ----          |
|                 | <u>40,725</u> |                 | <u>40,725</u> |

## 5. Issue of shares during the year

100,000 shares x K1 = K100,000 to share capital  
 100,000 shares x K0.40 = K40,000 to share premium  
 \*work backwards to calculate opening balances.

**6. Dividends declared**

350,000 shares x K0.30 = K105,000

| <b>7.</b>       | <b>Cost of sales</b> | <b>Administrative expenses</b> | <b>Distribution cost</b> |
|-----------------|----------------------|--------------------------------|--------------------------|
|                 | 'K'                  | 'K'                            | 'K'                      |
| per question    | 972,000              | 46,800                         | 59,400                   |
| depreciation:   |                      |                                |                          |
| buildings       |                      | 20,000                         | ---                      |
| plant and equip | 80,874               | ---                            | ---                      |
| ROUA            | <u>36,000</u>        | <u>---</u>                     | <u>---</u>               |
|                 | <u>1,088,874</u>     | <u>66,800</u>                  | <u>59,400</u>            |

## SOLUTION THREE

### (a) Zam-cargo's statement of cash flows using IAS 7 indirect method

|   | K' 000         | K' 000     |
|---|----------------|------------|
| <b>Cash flows from operating activities</b> |                |            |
| Profit before tax 900w4 +810                | 1,710          |            |
| Finance cost                                | 75             |            |
| Depreciation                                | 285            |            |
| Amortisation                                | 300            |            |
| Profit on disposal 550-515                  | <u>(35)</u>    |            |
| Cash flows before working capital changes   | 2,335          |            |
| Inventory increase 1,135-1,800              | (665)          |            |
| Receivables decrease 1,620-1,370            | 250            |            |
| Payables decrease 1,760-1,370               | <u>(390)</u>   |            |
| Cash generated from operating activities    | 1,530          |            |
| Finance cost paid w7                        | (50)           |            |
| Tax paid w6                                 | <u>(1,280)</u> |            |
| Net cash from operating activities          |                | 200        |
| <b>Cash flows from investing activities</b> |                |            |
| Cash from disposal of P.P.E                 | 550            |            |
| Cash paid to acquire P.P.E w1               | (960)          |            |
| Cash paid development expenditure w2        | <u>(950)</u>   |            |
| Net cash used in investing activities       |                | (1,360)    |
| <b>Cash flows from financing activities</b> |                |            |
| Shares issued w3                            | 1,750          |            |
| Long-term debts increase 750-500            | 250            |            |
| Lease liability paid w5                     | (155)          |            |
| Equity dividends paid w4                    | <u>(1,030)</u> |            |
| Net cash from financing activities          |                | <u>815</u> |
| Net decrease in cash and cash equivalents   |                | (345)      |
| Cash and cash equivalents 2018: 585+230-270 |                | <u>545</u> |
| Cash and cash equivalents 2019              |                | <u>200</u> |

### Workings

|  |              |
|--|--------------|
| <b>W1: Property, plant and equipment</b> | 000          |
| B/f                                      | 3,685        |
| Rev surplus                              | 500          |
| Finance lease: P.P.E                     | 280          |
| Less disposed P.P.E                      | (515)        |
| Less annual dep                          | (285)        |
| Cash paid bal fig                        | <u>960</u>   |
| C/f                                      | <u>4,625</u> |

|                              |              |
|------------------------------|--------------|
| <b>W2: Development costs</b> | 000          |
| B/f                          | 800          |
| Amortisation                 | (300)        |
| Cash paid bal fig            | <u>950</u>   |
| C/f                          | <u>1,450</u> |

|                          |              |
|--------------------------|--------------|
| <b>W3: Shares issued</b> | 000          |
| B/f 2,000+500            | 2,500        |
| Bonus issue 250-250      | -            |
| Cash received bal fig    | <u>1,750</u> |
| C/f 2,500+1,750          | <u>4,250</u> |

|                               |                |
|-------------------------------|----------------|
| <b>W4: Retained earnings</b>  | 000            |
| B/f                           | 1,275          |
| Profit for the year           | 900            |
| Equity dividends paid bal fig | <u>(1,030)</u> |
| C/f                           | <u>1,145</u>   |

|                           |              |
|---------------------------|--------------|
| <b>W5: Finance leases</b> | 000          |
| B/f 400+60                | 460          |
| Leased P.P.E              | 280          |
| Cash paid bal fig         | <u>(155)</u> |
| C/f 500+85                | <u>585</u>   |

|                   |                |
|-------------------|----------------|
| <b>W6: Taxes</b>  | 000            |
| B/f 225+765       | 990            |
| Taxes             | 810            |
| Cash paid bal fig | <u>(1,280)</u> |
| C/f 240+280       | <u>520</u>     |

|                                  |             |
|----------------------------------|-------------|
| <b>W7: Interest/finance cost</b> | 000         |
| B/f                              | -           |
| Finance cost                     | 75          |
| Cash paid                        | <u>(50)</u> |
| C/f                              | <u>25</u>   |

## Cash flow preparation process

### (b) Usefulness of Earnings Per Share

- i. Shows investors confidence in the entity's performance
- ii. The assessment of management performance over time.
- iii. Trend analysis of EPS to give an indication of earnings performance.
- iv. An indicator of dividend payouts. The higher the EPS the greater the expectation of an increased dividend compared to previous periods.

- v. An important component in determining the entity's price/earnings (P/E) ratio.

## SOLUTION FOUR

- a) The machinery was impaired as at 31 March 2018 and needed to be written down to its recoverable amount of the lower of fair value and value in use which in this case is 65,000. The p/l and sfp are as follows:

|  |                 |
|--|-----------------|
| p/l                                    |                 |
| depreciation expense for year          | 7,315           |
| impairment loss                        | 2,500           |
|  |                 |
| SFP                                    |                 |
| Machinery                              | 60,185          |
|  |                 |
| CA of machinery at 31 March 2018       | K               |
| Cost at 1 January 2015                 | 100,000         |
| Accumtddepn (100,000/10yrs x 3.25 yrs) | <u>(32,500)</u> |
| CA at 31 march 2018                    | 67,500          |
| Impairment loss                        | <u>(2,500)</u>  |
| Recoverable amout at 31 March 2018     | 65,000          |
| Depreciation to 30 sept 2018:          |                 |
| (65,000/6.75) x 6/12                   | <u>(4,815)</u>  |
| Carrying amount at 30 sept 2018        | 60,185          |

- b) A provision for restructuring may only be made if:

management have put in place a detailed formal and approved plan for the restructuring;

the plan has been communicated to all those affected by the restructuring.

Provision for Kwita Plc. would comprise of the following costs:

Redundancy packages payment of K9,200,000 only.

Explanation – because IAS 37 requires only direct expenditure arising from the restructuring to be included and any other costs associated with ongoing activities are specifically not allowed to be provided for, for example, retraining staff and re-alignment of IT system for Kwita Plc.

- a) Accounting policies are specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements.

- i) Indications of change in accounting policy include:

- Recognition of an asset that was previously recognized as an expense, e.g borrowing costs.
- Presenting depreciation expense in cost of sales that was previously presented as administrative expense.
- Measuring inventory using FIFO that was previously measured using AVCO method.



### **Accounting treatment**

An accounting policy change is applied retrospectively, with an adjustment to opening retained earnings in Statement of changes in equity.

If adjustment to opening Retained earnings cannot be reasonably determined, the change should be adjusted prospectively (that is, in the current year's profit and loss).

- ii) An accounting estimate is a method adopted by an entity to arrive at estimated amounts for financial statements. Estimates arise in relation to business activities because of the uncertainties inherent within them.

Indications of changes in accounting estimates include:

- Changing depreciation rates
- Changes in residual value of non current assets
- Useful lives of NCAs
- Methods of depreciation
- Warranty provisions
- Changes in allowances for irrecoverable debts rates.

### **Accounting treatment**

Accounting estimates are accounted for progressively, that is any change in accounting estimate should be included in profit in the period of the change and if subsequent periods are affected, in those subsequent periods.

## SOLUTION FIVE

(a)

(i)

### **Advantages of a conceptual framework**

- (1) Avoids fire-fighting approach when developing IASs/IFRSs.
- (2) Less open to criticism of political/external pressure.
- (3) Some standards may concentrate on statement of financial position; others on statement of profit or loss.
- (4) Financial statements are more consistent with each other.
- (5) Has a principle based approach rather than rule based approach.

(ii)

### **Relevance**

Information is capable of making a difference to users of such information if it has predictive value, confirmatory value, or both.

For information to be relevant it should be material and provided timely.

### **Faithful representation**

Information must be complete, neutral and free from material error.

Substance over form is implied.

(iii)

A bearer plant is accounted for according to IAS 16. It is initially measured at cost and is subsequently measured using either the cost model or the revaluation model.

Bearer plants are depreciated over their useful life, annual depreciation is charged in profit or loss.

Other biological assets are measured at initial recognition and at subsequent reporting dates at fair value less costs to sell.

Changes in fair value less costs to sell are recognised in profit or loss.

(iv)

The two concepts are:

**Financial concept of capital:** This states that capital is equal to net assets or equity of the entity.

- If net assets at the end of a reporting period are more than net assets at the beginning, a profit has been earned.

**Physical concept of capital:** This states that capital is regarded as productive capacity of an entity.

- A profit is therefore earned only if the physical productive capacity of the entity at the end of the period exceeds the physical productive capacity at the beginning of the period.

- (b)
  - (i) Under IFRS 16, for a lessee, all leases result in the recognition of:
    - (1) A lease liability.
    - (2) A right-of-use asset.
  - (ii) The lease liability is initially measured at the present value of lease payments.
  - (iii) Lease payments made on or before the commencement date should be excluded (e.g. a non-refundable deposit or an instalment paid in advance)
  - (iv) Lease payments should include any payments expected at the end of the lease.
  - (v) The right-of-use asset is initially measured at cost, comprising:
    - The present value of future lease payments.
  - (vi) The present value of future lease payments will include:
    - (1) *Any lease payments made before/at the commencement date*
    - (2) *Any initial direct costs incurred by the lessee*
    - (3) *Estimated dismantling, removal and restoration costs where an obligation exists*
    - (4) *Less any lease incentives received*

Subsequently, the right-of-use asset should normally be measured using the cost model in IAS 16:

- (vii) The discount factor used in the calculation is the interest rate implicit in the lease or the lessee's incremental borrowing rate if this is not available.
  - (viii) The carrying amount of the lease liability is increased by interest charges on the outstanding liability using the interest rate implicit in the lease and reduced by lease payments made.
  - (ix) The depreciation and finance charge will be reported in the statement of profit or loss.
  - (x) The carrying amount, non-current and current lease liabilities will be reported in the statement of financial position.
- (c) Value for money

**Economy:** attaining the appropriate quantity and quality of physical, human and financial resources (inputs) at the lowest cost.

**Efficiency:** this is a measure of the relationship between goods and services produced (outputs) and the resources used to produce them (inputs).

**Effectiveness:** how well an activity is achieving its policy objectives or other intended effects.

Key performance measurement indicators for public university

- (i) Employment at six months after graduation e.g. 80%
  - (ii) Graduate Satisfaction e.g. 85%
  - (iii) Employer Satisfaction e.g. 75%
  - (iv) Student Satisfaction e.g. 90%
  - (v) Graduation Rate e.g. 80%
  - (vi) Students with Distinctions e.g. 70%
  - (vii) Student- Lecturer ratio e.g. 25 students per class
  - (viii) Students using library books e.g. 75%
- (ix) Expenditure per Student e.g. K5,000 per semester etc



DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS

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**LEVEL TWO**

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DA 9: MANAGEMENT ACCOUNTING

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TUESDAY 10 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

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

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

## SECTION A – TWO COMPULSORY QUESTIONS

### Attempt Both questions

#### **QUESTION ONE**

Trade Masters Limited manufactures domestic and industrial cleaning detergents. The company is currently preparing its budget for the first three months of 2019, based on a number of assumptions and using a range of information.

Domestic detergent is manufactured in a simple production process from a blend of Citric acid and hydrogen peroxide. It is sold in 500ml containers. Projected sales for the four months are shown below.

| Months                   | January   | February  | March     | April     |
|--------------------------|-----------|-----------|-----------|-----------|
| Sales (500ml containers) | 210,000   | 220,000   | 237,500   | 240,000   |
| Sales value (K)          | 2,940,000 | 3,080,000 | 3,325,000 | 3,360,000 |

No inventory of domestic detergent containers is expected at 1 January 2019. However, it is company policy to have inventory of 25,000 containers filled up with the detergent in the warehouse to satisfy any unexpected demand at the end of each of the next six months. The retail price for a 500ml container of domestic detergent is K14.

Trade Masters Ltd uses marginal costing to value production and the costs incurred to produce one 500ml container of domestic detergent are as follows:

|   | K          |
|---|------------|
| Materials:  |            |
| - Citric acid (450ml @ K2 per litre)                  | 0.9        |
| - Hydrogen peroxide concentrate (50ml @ K8 per litre) | 0.4        |
| - 500ml plastic container                             | 0.6        |
| Labour (0.05hr @ K80 per hour)                        | 4.0        |
| Variable production overhead                          | 1.1        |
|   | <u>7.0</u> |

Assume that at 1 January the company will have 10,000 litres of citric acid, 2,500 litres of hydrogen peroxide concentrate and 25,000 empty plastic containers in inventory. To reduce the risk of production disruption. Trade Masters Limited has a policy of maintaining the same opening and closing monthly inventory of product materials and plastic containers. The cost of material purchases is not expected to change for the next year.

#### **Required:**

- (a) Prepare the following for the first three months of next year:
- (i) Production budget in litres. (3 marks)
  - (ii) Materials purchase budget (in litres and value) for each material. (7 marks)
  - (iii) Labour cost budget (in hours and value). (2 marks)
  - (iv) Variable production overhead cost budget. (2 marks)
- (b) Prepare a budgeted income statement based on the results you have obtained in (i) to (iv) above. (4 marks)
- (c) Explain the term 'flexible budget'. (2 marks)
- (d) Discuss the consequences of budget bias (budgetary slack) for cost control. (5 marks)

**[Total: 25 Marks]**

## **QUESTION TWO**

Commerce Chiefs Ltd (CCL) manufactures two components namely (C) and (D) used in pressing irons. The company has been using absorption costing system to allocate overheads to its products. Budgeted costs and activity information for next year is given below:

|                                  |          |
|----------------------------------|----------|
| Direct wages                     | K459,375 |
| Purchasing department costs      | K159,300 |
| Machine set up costs             | K143,250 |
| Quality control costs            | K162,600 |
| Machine depreciation             | K93,750  |
| <br>                             |          |
| Machine hours                    | 109,688  |
| Labour hours                     | 36,750   |
| Number of inspections            | 508,125  |
| Number of machine set ups        | 179,063  |
| Number of purchase orders raised | 796,500  |

Fixed production overheads are absorbed using a machine hour rate. Selling prices are calculated by adding a markup of 45% to the product cost.

However, recently CCL has streamlined its production process so that manufacturing overheads represent the most significant portion of product cost. The management accountant of CCL is proposing changing to an activity based costing system. Information relating to the company's most recent financial period and for two of its most popular storage products is shown below.

|                                    | Component (C)          | Component (D) |
|------------------------------------|------------------------|---------------|
| Direct materials per unit          | K1.05                  | K1.62         |
| Labour hours per unit              | 2 minutes              | 2 minutes     |
| Machine hours per unit             | 6 minutes              | 8 minutes     |
| Number of machine set ups per unit | 1                      | 1             |
| Number of purchase orders per unit | 2                      | 3             |
| Number of inspections per unit     | 1                      | 2             |
| <b>Activity</b>                    | <b>Cost drivers</b>    |               |
| Purchasing costs                   | Purchase orders raised |               |
| Machine set up costs               | No of machine set ups  |               |
| Quality control costs              | No of inspections      |               |
| Machine depreciation               | Machine hours          |               |

### **Required:**

- (a) Calculate the total product cost and selling price for each of the two storage products noted using:
- The costing approach currently used by CCL Ltd.; (7 marks)
  - Activity based costing (ABC). (11 marks)
- (b) Explain how the concept of contribution in throughput accounting differs from that in marginal costing. (7 marks)

**[Total: 25 Marks]**

## SECTION B

There are **THREE (3)** questions in this section. Attempt any two (2) questions.

### QUESTION THREE

The summarized profit and loss statement for Mabumbu Rice Fields Ltd for the last year is as follows:

|                                   | <b>K'000</b> | <b>K'000</b> |
|-----------------------------------|--------------|--------------|
| Sales (50,000 bags)               |              | 1,000        |
| Direct materials                  | 350          |              |
| Direct wages                      | 200          |              |
| Fixed production overhead         | 200          |              |
| Variable production overhead      | 50           |              |
| Administration overhead           | 180          |              |
| Selling and distribution overhead | 120          |              |
|                                   |              | 1,100        |
| Profit/(loss)                     |              | (100)        |

At a recent board meeting the Directors discussed the year's results, following which the chairman asked for suggestions to improve the situation.

#### **Required:**

Evaluate the following alternative proposals and comment on each one of them:

- (a) Pay salesmen a commission of 10 percent of sales: This will increase sales to achieve break-even point. (6 marks)
- (b) Reduce selling price by 10 percent, which it is estimated would increase sales volume by 30 percent. (6 marks)
- (c) Increase direct wage rates from K4 to K5 per hour, as part of a productivity/pay deal. It is hoped that this would increase production and sales by 20 percent, but advertising costs would increase by K50,000. (5 marks)
- (d) Increase sales by additional advertising of K300,000, with an increased selling price of 20 percent, setting a profit margin of 10 percent. (8 marks)

**[Total: 25 Marks]**



#### **QUESTION FOUR**

Bungwee Limited is an ice cream manufacturer. The company was established in 1996 by a family and has since then built up a loyal and expanding customer base. Bungwee Limited has three popular flavours, vanilla, strawberry and chocolate. Successful marketing and sales of these flavours has resulted in the company exceeding full capacity at its current manufacturing base in Chipata. Consequently the directors are considering expanding production capacity over the next few years and are examining a number of possibilities. However, for the current year the company has a total of 10,000 direct labour hours and 7,500 machine hours available for production at its Chipata manufacturing base. Production and sales details relating to the flavours are shown below:

|  | <b>Vanilla</b> | <b>Strawberry</b> | <b>Chocolate</b> |
|--|----------------|-------------------|------------------|
| Direct materials_ milk @ K12 per litre       | 0.75 litres    | 0.625 litres      | 1.25 litres      |
| Direct labour @ K12 per hour                 | 0.125 hour     | 0.125 hour        | 0.25 hour        |
| Variable overhead 150% of direct labour cost |                |                   |                  |
| Machine hours required                       | 0.15 hours     | 0.1 hours         | 0.125 hours      |
| Sales demand for the year (units)            | 30,000         | 18,000            | 15,000           |
| Selling price per unit                       | K34            | K60               | K85              |

Budgeted fixed production overhead is estimated to be K91,140 per month and the company has also budgeted for selling and administration expenses of K189,494 per quarter.

#### **Required:**

- (a) Calculate the optimal production plan and the total expected profit for Bungwee Limited. (11 marks)
- (b) Explain any four differences between management accounting and financial accounting. (8 marks)
- (c) Explain the role of the management accountant in the provision of information to a business. (6 marks)

**[Total: 25 Marks]**

#### **QUESTION FIVE**

A major information source within many businesses is a system of standard costing and variance analysis.

#### **Required:**

- (a) Describe any four purposes of a system of standard costing. (4 marks)
- (b) Explain three different levels of performance which may be incorporated into a system of standard costing and comment on how these may relate to the purposes set out in (a) above. (10 marks)
- (c) Comment on whether standard costing applies in both manufacturing and service businesses and how it may be affected by modern initiatives of continuous performance improvement and cost reduction. (5 marks)

- (d) A standard costing system enables variances for direct costs, variable and fixed overheads to be extracted. Identify and discuss some of the complexities and practical problems in calculation which may limit the usefulness of those variances.

(6 marks)

**[Total: 25 Marks]**

**END OF PAPER**

## DA9 SOLUTIONS

### SOLUTION ONE

(a)

#### (i) Production Budget in units (500ml containers)

|   | January | February | March    |
|---|---------|----------|----------|
| Sales                                   | 210,000 | 220,000  | 237,500  |
| Add Closing Inventory                   | 25,000  | 25,000   | 25,000   |
| Less Opening Inventory                  | (Nil)   | (25,000) | (25,000) |
| Production required in 500ml containers | 235,000 | 220,000  | 237,500  |
| Production required in litres           | 117,500 | 110,000  | 118,750  |

#### (ii) Materials Purchase Budget

Each 500ml container contains 450ml or 90% citric acid and 50ml or 10% hydrogen peroxide concentrate

| Citric acid                                      | January        | February       | March          | Total          |
|--|----------------|----------------|----------------|----------------|
| Production required in litres                    | 117,500        | 110,000        | 118,750        |                |
| Citric acid required per 500ml container i.e 90% | 105,750        | 99,000         | 106,875        |                |
| Closing Inventory                                | 10,000         | 10,000         | 10,000         |                |
| Less opening Inventory                           | (10,000)       | (10,000)       | (10,000)       |                |
| Purchases required                               | 105,750        | 99,000         | 106,875        |                |
| Cost @ K2 per litre                              | 2              | 2              | 2              |                |
| <b>Total cost</b>                                | <b>211,500</b> | <b>198,000</b> | <b>213,750</b> | <b>623,250</b> |

| Hydrogen peroxide                                | January       | February      | March         | Total          |
|--|---------------|---------------|---------------|----------------|
| Production required in litres                    | 117,500       | 110,000       | 118,750       |                |
| Citric acid required per 500ml container i.e 10% | 11,750        | 11,000        | 11,875        |                |
| Closing Inventory                                | 2,500         | 2,500         | 2,500         |                |
| Less opening Inventory                           | (2,500)       | (2,500)       | (2,500)       |                |
| Purchases required                               | 11,750        | 11,000        | 11,875        |                |
| Cost @ K8 per litre                              | 8             | 8             | 8             |                |
| <b>Total cost</b>                                | <b>94,000</b> | <b>88,000</b> | <b>95,000</b> | <b>277,000</b> |

| Plastic containers            | January        | February       | March          | Total          |
|-------------------------------|----------------|----------------|----------------|----------------|
| Production in 500ml container | 235,000        | 220,000        | 237,500        |                |
| Closing Inventory             | 25,000         | 25,000         | 25,000         |                |
| Less opening Inventory        | (25,000)       | (25,000)       | (25,000)       |                |
| Purchases required            | 235,000        | 220,000        | 237,500        |                |
| Cost @ K0.6 per container     | 0.6            | 0.6            | 0.6            |                |
| <b>Total cost</b>             | <b>141,000</b> | <b>132,000</b> | <b>142,500</b> | <b>415,500</b> |

Tutorial Note: For each of the ingredients the opening inventories and closing inventories are the same, hence, the above calculations may be computed by excluding these and just using production quantities.

### (iii) Labour cost budget

|                                | January        | February       | March          | Total            |
|--------------------------------|----------------|----------------|----------------|------------------|
| Production in 500ml containers | 235,000        | 220,000        | 237,500        | 692,500          |
| Hours per container            | 0.05           | 0.05           | 0.05           | 0.05             |
| Labour hours                   | 11,750         | 11,000         | 11,875         | 34,625           |
| Labour rate (K)                | 80             | 80             | 80             | 80               |
| Production labour cost (K)     | <b>940,000</b> | <b>880,000</b> | <b>950,000</b> | <b>2,770,000</b> |

### (iv) Variable overhead budget

|                                | January        | February       | March          | Total          |
|--------------------------------|----------------|----------------|----------------|----------------|
| Production in 500ml containers | 235,000        | 220,000        | 237,500        |                |
| Cost to produce each container | K1.1           | K1.1           | K1.1           |                |
| Variable overhead cost         | <b>258,500</b> | <b>242,000</b> | <b>261,250</b> | <b>761,750</b> |

### (b) Budgeted Income statement

|                         | K              | K                |
|-------------------------|----------------|------------------|
| Sales                   |                | 9,345,000        |
| Cost of Sales           |                |                  |
| Opening Inventory (w1)  | 55,000         |                  |
| Add Production Cost(w2) | 4,847,500      |                  |
| Less Closing Inventory  | <u>230,000</u> |                  |
| Cost of sales           |                | <u>4,672,500</u> |
| Gross Profit            |                | <u>4,672,500</u> |

#### Working

##### 1. Opening Inventory

|                    | Quantity      | Cost Value    |
|--------------------|---------------|---------------|
|                    |               | K             |
| Citric acid        | 10,000 @ K2   | 20,000        |
| Hydrogen peroxide  | 2,500 @ K8    | 20,000        |
| Plastic containers | 25,000 @ K0.6 | 15,000        |
| <b>Total</b>       |               | <b>55,000</b> |

##### 2. Production Cost (from (a) (i) to (iv))

|                       | K                |
|-----------------------|------------------|
| Citric acid           | 623,250          |
| Hydrogen peroxide     | 277,000          |
| Plastic containers    | 415,500          |
| Labour                | 2,770,000        |
| Variable overheads    | 761,750          |
| Total production cost | <b>4,847,500</b> |

##### 3. Closing Inventory

|                    | Quantity    | Cost Value |
|--------------------|-------------|------------|
|                    |             | K          |
| Domestic detergent | 25,000 @ K7 | 175,000    |

|                    |               |                |
|--------------------|---------------|----------------|
| Citric acid        | 10,000 @ K2   | 20,000         |
| Hydrogen peroxide  | 2,500 @ K8    | 20,000         |
| Plastic containers | 25,000 @ K0.6 | 15,000         |
| <b>Total</b>       |               | <b>230,000</b> |

### (c) Flexible budget

A flexible budget is a budget which, by recognising the difference in behaviour between variable and fixed overheads in relation to changes in volume, turnover or other variable factors, is designed to change in accordance with such fluctuations.

**(d) Budget bias (budgetary slack)** occurs when managers aim to give themselves easier budget targets by understating budgeted sales revenue or overstating budgeted costs. Cost control using budgets is achieved by comparing actual costs for a budget period with budgeted or planned costs. Significant differences between planned and actual costs can then be investigated and corrective action taken where appropriate.

Budget bias will lead to more favourable results when actual and budgeted costs are compared. Corrective action may not be taken in cases where costs could have been reduced and in consequence inefficiency will be perpetuated and overall profitability reduced.

Managers may incur unnecessary expenditure in order to protect existing budget bias with the aim of making their jobs easier in future periods, since if the bias were detected and removed, future budget targets would be more difficult to achieve. Unnecessary costs will reduce the effectiveness of cost control in supporting the achievement of financial objectives such as value for money or profitability.

Where budget bias exists, managers will be less motivated to look for ways of reducing costs and inefficiency in those parts of the organisation for which they bear responsibility. The organisation's costs will consequently be higher than necessary for the level of performance being budgeted for.

## SOLUTION TWO

### (a) Total product cost of the two storage products based on

#### (i) Current costing approach

Product cost and selling price

|   | Component C | Component D |
|---|-------------|-------------|
|   | K           | K           |
| Direct materials                                  | 1.050       | 1.620       |
| Direct labour (2 mins / 2 mins x K12.50 per hour) | 0.417       | 0.417       |
| Production overhead (6 mins / 8 mins x K5.10)     | 0.510       | 0.680       |
| Total product cost                                | 1.977       | 2.717       |
| Add 45% mark-up on cost                           | 0.890       | 1.223       |
| Selling price                                     | 2.867       | 3.940       |

(W1) Calculation of overhead absorption rate

$$\text{Overhead absorption rate per machine hour} = \text{K}558,900 \div 109,688 \text{ machine hours} \\ = \text{K}5.10 \text{ per machine hour}$$

(W2) Calculation of direct labour rate per hour

$$\text{Direct labour rate per hour} = \text{K}459,375 \div 36,750 \text{ labour hours} = \text{K}12.50 \text{ per labour hour}$$

#### (ii) Activity based costing

Product cost and selling price

|   | Component C | Component D |
|---|-------------|-------------|
|   | K           | K           |
| Direct materials                                  | 1.050       | 1.620       |
| Direct labour (2 mins / 2 mins x K12.50 per hour) | 0.417       | 0.417       |
| Production overheads (w4)                         | 1.605       | 2.153       |
| Total product cost                                | 3.07        | 4.19        |
| Add 45% mark-up on cost                           | 1.38        | 1.89        |
| Selling price                                     | 4.45        | 6.08        |

(W3) Calculation of cost per driver

| Activity              | Cost drivers           | Cost pool | Total cost drivers | Cost per driver      |
|-----------------------|------------------------|-----------|--------------------|----------------------|
|                       |                        | K         |                    | K                    |
| Purchasing costs      | Purchase orders raised | 159,300   | 796,500            | K0.2 per order       |
| Machine set up costs  | No of machine set ups  | 143,250   | 179,063            | K0.80 per set-up     |
| Quality control costs | No of inspections      | 162,600   | 508,125            | K0.32 per inspection |
| Machine depreciation  | Machine hours          | 93,750    | 109,688            | K0.85 per hour       |

(W4) Calculation of total overhead cost for each storage product

|   | Component C  | Component D  |
|---|--------------|--------------|
|   | K            | K            |
| Purchasing costs ( $K0.2 \times 2/3$ )            | 0.400        | 0.600        |
| Machine set up costs ( $K0.8 \times 1/1$ )        | 0.800        | 0.800        |
| Quality control costs ( $K0.32 \times 1/2$ )      | 0.320        | 0.640        |
| Machine depreciation ( $K0.85 \times 0.1/0.133$ ) | <u>0.085</u> | <u>0.113</u> |
| Total overhead cost                               | <u>1.605</u> | <u>2.153</u> |

### **(b) Throughput accounting Versus Marginal costing**

Whilst throughput accounting and marginal costing have many similarities, the main difference arises from the definition of contribution or, more specifically, what can be regarded as a variable cost. The traditional marginal costing approach assumes that direct labour is a variable cost. Whilst this may have been true 30 or 40 years ago when labour was typically paid at piece rate, this is no longer the case – in the short term, throughput accounting treats labour as a fixed cost. Marginal costing also tends to emphasise cost behaviour, especially overheads, and usually attempts to separate these into fixed and variable components. As with labour costs, throughput accounting treats all production overhead costs as fixed in the short term and aggregates these with labour into what is referred to as 'total factory cost'. Consequently, in throughput accounting the only cost that is treated as variable in the short term is the direct material cost.

Furthermore, marginal costing does not provide a direct disincentive to produce for, or carry inventory. Throughput accounting discourages this by using the total cost of direct materials purchased in the period in the calculation of throughput, rather than the cost of material actually used, as is the case with marginal costing.

### SOLUTION THREE

- (a) Sales commission will be K2 per unit, thus reducing the contribution per unit to K6. The break-even point will be 83,333 units ( $K500,000/K6$ ) or K1 666 666 sales value. This requires an increase of 67% on previous sales and the company must assess whether or not sales can be increased by such a high percentage.

Workings: (000)

|                 |              |
|-----------------|--------------|
| Sales           | 1000         |
| Variable costs  | 600          |
| Contribution    | 400          |
| Fixed           | <u>500</u>   |
| Profit and loss | <u>(100)</u> |

Unit selling price = K20 (K1m/50,000)  
 Unit variable cost = K12 (K600,000/50,000)  
 Unit contribution = K8

- (b) A 10% decrease in selling price will decrease the selling price by K2 per unit and the revised unit contribution will be K6.

K

|  |                  |
|--|------------------|
| Revised total contribution (65,000 x K6) | 390,000          |
| Less fixed costs                         | <u>500,000</u>   |
| Profit/(loss)                            | <u>(110,000)</u> |

The estimated loss is worse than last year and the proposal is therefore not recommended.

- (c) Wages will increase by 25% - that is from K200,000 to K250,000 - causing output to increase by 20%

K

|                               |                |                  |
|-------------------------------|----------------|------------------|
| Sales (1,000,000 x 120%)      |                | 1, 200,000       |
| Direct materials and variable | 480,000        |                  |
| Direct wages                  | <u>250,000</u> |                  |
|                               |                | <u>730,000</u>   |
| Contribution                  |                | 470,000          |
| Less fixed costs              |                | <u>550,000</u>   |
| Profit/(loss)                 |                | <u>( 80,000)</u> |

This represents an improvement of K20,000 on last year's loss of K100,000.

- (d) Revised selling price = K24

Let X = Revised sales volume

$$\begin{aligned}
 \text{Therefore, sales revenue less (variable costs + fixed costs) = Profit} \\
 24X \text{ less } (12X + 800,000) &= 0.1(24X) \\
 9.6X &= 800,000 \\
 X &= 83,333 \text{ units}
 \end{aligned}$$

Clearly this proposal is preferable since it is the only proposal to yield a profit, However, The probability of increasing sales volume by approximately 67% plus the risk involved from increasing fixed costs by K300,000 must be considered.



## SOLUTION FOUR

### (a) The optimal production plan and total profit for the year

#### Optimal production plan

| Ice cream  | Machine hours per unit | Demand (units) | Total machine hours required | Total machine hours available |
|------------|------------------------|----------------|------------------------------|-------------------------------|
|            |                        |                |                              | 7,500                         |
| Chocolate  | 0.125                  | 15,000         | 1,875                        | 5,625                         |
| Strawberry | 0.100                  | 18,000         | 1,800                        | 3,825                         |
| Vanilla    | 0.150                  | 25,500*        | 3,825                        |                               |

#### **Profit statement**

| Ice cream                | Contribution per unit<br>K | Production units   | Total contribution<br>K |
|--------------------------|----------------------------|--------------------|-------------------------|
| Vanilla                  | 21.25                      | 25,500             | 541,875                 |
| Strawberry               | 48.75                      | 18,000             | 877,500                 |
| Chocolate                | 62.50                      | 15,000             | 937,500                 |
|                          |                            |                    | <u>2,356,875</u>        |
| Less fixed costs:        |                            |                    |                         |
| Production overheads     | 1,093,680                  | (91,140 x 12 mths) |                         |
| Selling & administrative | 757,975                    | (189,494 x 4mths)  |                         |
| Profit                   |                            |                    | <u>1,851,650</u>        |
|                          |                            |                    | <u>505,219</u>          |

#### **Working:**

|  | Vanilla<br>K | Strawberry<br>K | Chocolate<br>K |
|--|--------------|-----------------|----------------|
| Selling price per unit                     | 34.00        | 60.00           | 85.00          |
| Direct materials_ milk @ K12 per litre     | (9.00)       | (7.50)          | (15.00)        |
| Direct labour @ K12 per hour               | (1.50)       | (1.50)          | (3.00)         |
| Variable overhead: 150% Direct labour cost | (2.25)       | (2.25)          | (4.50)         |
| Contribution per unit                      | <u>21.25</u> | <u>48.75</u>    | <u>62.50</u>   |
| Machine hours per unit                     | 0.15         | 0.1             | 0.125          |
| Contribution per machine hour              | 142          | 487.5           | 500            |
| Ranking                                    | 3            | 2               | 1              |

#### **Working:**

#### **Production capacity to meet demand**

|                             | Sales demand | Labour hours required | Machine hours required |
|-----------------------------|--------------|-----------------------|------------------------|
| Vanilla                     | 30,000       | 3,750                 | 4,500                  |
| Strawberry                  | 18,000       | 2,250                 | 1,800                  |
| Chocolate                   | 15,000       | <u>3,750</u>          | <u>1,875</u>           |
|                             |              | 9,750                 | 8,175                  |
| Total hours available       |              | <u>10,000</u>         | <u>7,500</u>           |
| Excess/(shortfall) of hours |              | 250                   | 675                    |

The company does not have enough machine hours in the current year to meet sales demand.

\* This represents the number of vanilla ice cream that may be produced using the remaining machine hours i.e.

$$7,500 - 1,800 - 1,875 = 3,825 \text{ hours} / 0.15 \text{ hours per vanilla} = 25,500 \text{ vanillas}$$

**(b)** There are a number of areas where management accounting differs from financial accounting:

### **Management Accounting**

There is no legal requirement to prepare management accounts.

Management accounting has an internal focus. It is designed to assist company managers in planning, controlling and decision-making activities.

Management accounting information may focus on many areas as required by the company.

The layout and substance of management accounting information is decided by company management.

Management accounting information may include both monetary and non-monetary information.

Management accounting may be used for planning purposes and also for presenting information on past activities.

Management accounting information may be prepared daily, monthly, weekly etc. as required.

### **Financial Accounting**

There is a legal requirement for companies to prepare financial statements.

Financial accounting has an external focus. It is designed to provide information to users who are external to an organisation.

Financial accounting focuses on the organisation as a whole.

Financial accounting information is presented in a format prescribed by law and by accounting standards

Most financial accounting information is expressed in monetary terms.

Financial accounting information provides information on what has happened in the past

A detailed set of financial statements for a business is produced annually and in some cases less detailed financial information may be produced semi-annually

**(c)** As part of his/her role the management accountant provides information to facilitate a range of activities including:

### **Allocation of costs between cost of goods sold and inventories**

It is important to allocate costs to products as accurately as possible in order to establish the profitability of the business. The management accountant ensures that cost information is collected and correctly allocated to cost of sales or inventories as appropriate. The management accountant may use techniques such as activity based costing to allocate overheads to products or the first in first out (FIFO) method to value inventory.

### **Planning and controlling**

To carry out their roles effectively the various managers in a business require information to assist them in planning and controlling the operations of the organisation. Planning involves translating goals and objectives into the specific activities and resources that are required to

achieve the goals and objectives. The management accountant is involved in the preparation of both long term and short term plans. Budgets are short-term plans that are prepared in more detail than longer term plans. Control involves the process of ensuring that actual outcomes conform to planned or expected outcomes. Budgets may be used to support the controlling of activities by providing a measure against which actual performance may be compared.

### **Performance measurement**

The management accountant generates periodic reports, which compare actual performance to plan, and provides these to managers enabling them to determine if operations are proceeding as expected and to identify where corrective action may be required. These periodic reports also allow managerial performance to be evaluated and provide incentives for managers to try to achieve favourable results.

### **Decision making**

Managers also require information to assist them with routine and non-routine decision making. Routine decisions relate to issues such as assessing the profitability of different segments of an organisation such as products, services and customers. Non-routine decisions are made infrequently and may relate to strategic issues such as the introduction of new products or services. The information provided by the management accountant to support these decisions may be financial or non-financial in nature, depending on what best meets the needs of management. In many instances cost information accumulated by the management accountant is relied upon to inform decisions, and therefore it is critical that such information is of a high quality.

## SOLUTION FIVE

- a) A standard costing system can support a wide range of management requirements. For example:

**Planning:**

It can help in the development of budgets; standards are in effect the building blocks of periodic budgets.

**Motivation:**

If handled correctly by management the existence of an appropriately set standard can act as a target and hence become a source of employee motivation.

**Performance valuation:**

To the extent that standards are measures of expected performance by departments or individuals, standard costs are the basis for measuring performance.

**Control:**

Following on from the above, the variance that is derived from standard costs act as a control device by highlighting those activities which are different from plans. This signals to decision making makers the need for action to take advantage of any circumstances which have produced favourable variances or minimize the repercussions of any adverse variances.

**Decision making:**

Standard costs are predicated future costs which can be used to support decision making, for example in making pricing decisions.

**Inventory valuation:**

In manufacturing companies a key requirement of costing is the valuation of inventory. Standard costs simplify the process of tracing costs to products for inventory valuation.

- b) Three different levels of performance are:

**Basic standards** – such standards are left unchanged for a long period, perhaps from the inception of the product or service concerned. They may be useful in demonstrating a progression of improved performance over a period of time, but do not represent current targets. Therefore, they do not motivate, they do not result in representative unit costs and are inappropriate as predicted costs for decisions.

**Ideal standards** – these represent perfect performance and the most efficient operating conditions reflecting the lowest possible costs. They are a useful objective to which the firm can aspire over the long term but firms will rarely achieve this level of performance consistently. As a result adverse variances will almost always be reported, this will inevitably have an adverse effect on employee attitude and motivation. They represent budget figures which are too tight and inappropriate from which to set prices or to use directly as performance measures in most circumstances.

**Current standard** – these standards represent costs which should be attained under current efficient operating conditions. They are a reasonable target and represent a likely level of future costs if operations are managed efficiently. They are a level of performance which does not demotivate staff. They are therefore the figures which can be used to manage the current

operations of a business unit. They are figures which can support planning and decision-making and as current cost levels they are appropriate for inventory valuation. It should be expected that most companies will run their systems based on these standards. The first two levels mentioned above may, on the other hand, be useful for strategic purposes, demonstrating on an adhoc basis, how far the company has come or how far it has to go.

- c) Standard costing is most suited to organizations whose activities consist of a series of common or repetitive operations. Typically, mass production manufacturing operations are indicative of its area of application. It is also possible to envisage operations within the service sector to which standard cost may apply, though this may not be costed with the same degree of accuracy of standards which apply in manufacturing. For example, hotels and restaurants often use standard recipes for food preparation; dealing with conference attendance can be like a mass production environment. Similarly, banks will have common processes for dealing with customer transactions, processing cheques etc. It is possible therefore that the principles of standard costing may be extended to service industries.

In modern manufacturing and service businesses, continuous improvement and cost reduction are topical. In order to remain competitive it is essential that businesses address the cost levels of their various operations. To do this they have to deal with the costing of operations. But the drive to 'cost down' may mean in some cases that standards do not apply for long before a redesign or improvement renders them out of date. In such a setting an alternative to the use of standard costs is to compare actual costs with those of the previous operating period. We have seen in (a) above that a standard costing system has a variety of purposes. It is for management to judge their various reasons for employing standard costing, and consequently whether their aims of continuous improvement and cost reduction render the system redundant.

- d) Standard costing variances are a convenient way of summarizing the results of an operating period by focusing on the financial impact of deviations from a budgeted result. The variances, which can be identified as to cause and responsibility, are in total the absolute difference that actual results bear to an original plan. The exercise of variance analysis is not without difficulty however, and the following is a critique of the technique, bringing out some of the practical problems.

For direct costs the traditionally adopted formula creates an analysis of price and usage variances. However, this division is only by the convention of the variance formula and the existence of joint variances influenced by a combination of price and usage could also be compiled in certain circumstances, say when remuneration is based on the results of the reported variance. The complexity of the variance calculation can at times however, be taken too far, for example the extraction of mix, yield and price variances say in relation to materials costs can be questionable. Most of these variances can be inter-related. It is dangerous to interpret individual variances in isolation, interdependency should be recognized.

Concerning variable and fixed overheads, the level of costs are controllable against a budget and this is often a fixed budget. When activity levels change it is important to remember that the variable costs need to be flexed to allow for such. This raises the problem of which costs to flex and what measure of activity (i.e number of units, hours of work etc.) to use as the basis of flexing. There is unlikely to be exact correlation between the measure of activity chosen (say labour hours) and the cost change, therefore care should be exercised in the interpretation of these variances. A comparison of the actual and standard activity levels facilitates the extraction of an efficiency

variance in relation to variable overheads. Whether the results of such analysis reflect a more or less efficient use of variable overhead resources has been questioned.

Perhaps the variance which attracts most criticism is the fixed overhead volume variance. This variance represents the fixed overhead cost or benefit of working at a volume level below or above that which was budgeted. Though it is important to reconcile budget and actual volumes, the value applied to the volume variance does not report a meaningful cost in all circumstances. For example, as costs are fixed, by definition, extra volume, if available, is 'free' up to a certain limit. In other circumstances if time is scarce then the cost of any time wasted, for example, may be far higher than the fixed overhead rate. It has been pointed out that the calculation of an overhead recovery rate per unit or per hour applied to fixed overheads may be unhelpful because it is in effect treating fixed overheads as if they were variable costs.

N.B. In the latter stages of this question, especially parts (c) and (d), there is scope for slightly different content or views to be expressed than those in the outline answer. Credit will be given for points other than those stated above.



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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**LEVEL TWO**

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DA 10: TAXATION

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THURSDAY 12 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

1. You have fifteen (15) minutes reading time. Use it to study the examination paper carefully so that you understand what to do in each question.
2. This paper is divided into TWO sections:  
Section A: There are two (2) compulsory questions.  
Section B: There are three (3) questions. Attempt any two (2) 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.**

## Taxation table for paper DA10– Taxation (June and December 2019 Examinations)

### Income Tax

#### Standard personal income tax rates

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

#### Income from farming for individuals

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

#### Company Income Tax rates

|   |     |
|---|-----|
| On income from manufacturing and other              | 35% |
| On income from farming                              | 10% |
| On income of Banks and other Financial Institutions | 35% |
| On income from mineral processing                   | 30% |
| On income from mining operations                    | 30% |

### Capital Allowances

#### Implements, plant and machinery and commercial vehicles:

|   |      |
|---|------|
| Wear and Tear Allowance – Plant used normally | 25%  |
| Used in Manufacturing and Leasing             | 50%  |
| Used in farming and agro-processing           | 100% |

#### Non- commercial vehicles

|                         |     |
|-------------------------|-----|
| Wear and Tear Allowance | 20% |
|-------------------------|-----|

#### Industrial Buildings:

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

#### Low Cost Housing (Cost up to K20,000)

|                         |     |
|-------------------------|-----|
| Wear and Tear Allowance | 10% |
| Initial Allowance       | 10% |

#### Commercial Buildings

|                         |    |
|-------------------------|----|
| Wear and Tear Allowance | 2% |
|-------------------------|----|



**Farming Allowances**

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

**Presumptive Taxes**

|                     |    |
|---------------------|----|
| <b>Turnover Tax</b> | 4% |
|---------------------|----|

**Presumptive Tax for Transporters**

| Seating capacity                  | Tax per annum | Tax per day |
|-----------------------------------|---------------|-------------|
|                                   | K             | K           |
| From 64 passengers and over       | 10,800        | 29.60       |
| From 50 to 63 passengers          | 9,000         | 24.70       |
| From 36 to 49 passengers          | 7,200         | 19.70       |
| From 22 to 35 passengers          | 5,400         | 14.80       |
| From 18 to 21 passengers          | 3,600         | 10          |
| From 12 to 17 passengers          | 1,800         | 5.0         |
| Less than 12 passengers and taxis | 900           | 2.50        |

**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****Customs and Excise duties on used motor vehicles**

| Motor vehicles for the transport of ten or more persons, including the driver | Aged 2 to 5 years |                  | Aged over 5 years |                  |
|---|-------------------|------------------|-------------------|------------------|
|   | Customs duty<br>K | Excise duty<br>K | Customs duty<br>K | Excise duty<br>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                  |
|  | <b>Aged 2 to 5 years</b> |                    | <b>Aged over 5 years</b> |                    |
| <b>Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars</b>  | <b>Customs duty</b>      | <b>Excise duty</b> | <b>Customs duty</b>      | <b>Excise duty</b> |
|  | <b>K</b>                 | <b>K</b>           | <b>K</b>                 | <b>K</b>           |
| <b>Sedans</b>  |                          |                    |                          |                    |
| 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             |
| <b>Hatchbacks</b>  |                          |                    |                          |                    |
| 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             |
| <b>Station wagons</b>  |                          |                    |                          |                    |
| cylinder capacity not exceeding 2500 cc  | 16,545                   | 21,508             | 9,024                    | 11,731             |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc  | 18,049                   | 23,463             | 13,357                   | 17,598             |
| Cylinder capacity exceeding 3000 cc but not exceeding 2500 cc  | 22,561                   | 29,329             | 18,049                   | 23,463             |
| <b>SUVs</b>  |                          |                    |                          |                    |
| Cylinder capacity not exceeding 2500 cc  | 21,057                   | 27,374             | 9,024                    | 11,732             |
| Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc  | 24,065                   | 31,284             | 13,357                   | 17,598             |
| Cylinder capacity exceeding 3000 cc  | 28,577                   | 37,150             | 18,049                   | 23,463             |
|  | <b>Aged 2 to 5 years</b> |                    | <b>Aged over 5 years</b> |                    |
| <b>Motor vehicles for the transport of goods –with compression-ignition internal combustion piston engine (diesel or semi-diesel):</b> | <b>Customs duty</b>      | <b>Excise duty</b> | <b>Customs duty</b>      | <b>Excise duty</b> |
|  | <b>K</b>                 | <b>K</b>           | <b>K</b>                 | <b>K</b>           |
| <b>Single cab</b>  |                          |                    |                          |                    |
| 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 exceeding 5 tonnes   | 30,274 | 0      | 24,119 | 10,452 |
| Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, <b>with spark ignition internal combustion piston engine</b> | 30,697 | 13,302 | 24,119 | 10,452 |
| <b>Panel Vans</b>   |        |        |        |        |
| 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  |
| <b>Trucks</b>   |        |        |        |        |
| 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 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   | 51,898 | 0      | 19,461 | 0      |
| GVW exceeding 20 tonnes, <b>with spark ignition internal combustion piston engine</b>   | 37,086 | 28,432 | 13,907 | 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%  |

5. The minimum amount of customs duty on motor vehicles is K6,000.
6. Import VAT is added to the sum of VDP, customs duty and excise duty. It is determined at the standard rate of 16%

## SECTION A

Attempt BOTH questions in this section.

### QUESTION ONE

BA plc is a Zambian resident company engaged in manufacturing. The company listed its shares on the Lusaka Stock Exchange in the tax year 2018 and 25% of the issued share capital was taken up by indigenous Zambians. The profit before tax as per accounts for the year ended 31 December 2019 was K570,000. The profit figure was arrived at after taking into account of the following:

1. Depreciation on non-current assets of K121,600, entertaining employees K40,000, entertaining suppliers K52,000 and penalty for late submission of provisional income tax return K12,780. The balance consists of revenue expenses which are all allowable for tax purposes.
2. Salary for the Managing Director of K420,000. The Managing Director is accommodated in a company owned house for which he pays no rent to the company.
3. Canteen expenses of K211,400. The company provides meals to all the employees through its canteen.
4. Rental income K36,000 (net), bank interest K35,700 (net), royalties K68,000 (net) and profit on disposal of office equipment K20,300.

### **Other information**

1. The estimated tax adjusted business profit for the tax year 2019 was K600,000 and the company calculated and paid the provisional income tax on this profit.
2. On 1 January 2019 the company had the following implements, plant and machinery:

| Cost<br>K                 | Income tax value<br>K |         |  |
|---------------------------|-----------------------|---------|--|
| Manufacturing equipment   | 160,000               | 80,000  |  |
| Office equipment          | 40,000                | 20,000  |  |
| Office building           | 400,000               | 240,000 |  |
| Factory building          | 600,000               | 270,000 |  |
| Toyota Prado car (3000cc) | 280,000               | 224,000 |  |

During the tax year 2019 the company sold its office equipment for K50,000 which was replaced with computers at a cost of K60,000. The office building was acquired 20 years ago whereas the factory building was constructed 7 years ago. The Toyota Prado car is used by the Chief Finance Officer on personal-to-holder basis. It has been agreed with the Commissioner General that the car is used 60% for private purposes.

**Required:**

- (a) Calculate the maximum capital allowances claimable by the company for the tax year 2019. (7 marks)
- (b) Calculate the adjusted business profit for the tax year 2019. (7 marks)
- (c) Calculate the amount of provisional income tax paid by BA plc for the tax year 2019 and state the amount paid on each due date. (4 marks)
- (d) Calculate the final amount of income tax payable by BA plc for the tax year 2019. (7 marks)

**[Total: 25 Marks]**

**QUESTION TWO**

Helen Zulu who was employed as the Chief Accountant at Switech Limited a Zambian resident company, resigned from her position on 31 October 2019, to set up her own consultancy firm. She had been employed at Switech Limited under a three year fixed term contract which commenced on 1<sup>st</sup> January 2019. Her contract of employment provided for the following:

|                                    | K       |
|------------------------------------|---------|
| Salary per annum                   | 180,000 |
| Housing allowance per month        | 1,200   |
| General purpose allowance per year | 9,000   |
| Commuted car allowance per month   | 600     |
| Electricity allowance per month    | 400     |

On 1 May 2019, she received K15,000 cash as a labour day award.

Upon her resignation, she received severance pay amounting to K8,000 and a general purpose bonus amounting to K45,000. She had accumulated 90 days of leave which were commuted at K30 per day. Switech Limited also paid her a gratuity of 25% of her cumulative basic pay up to the date of resignation in accordance with her contract of employment.

For the tax year 2019 she made the following payments:

|                                   | K      |
|-----------------------------------|--------|
| Medical Scheme                    | 4,000  |
| Mortgage loan repayments          | 12,000 |
| Insurance premiums                | 3,800  |
| Income tax paid under PAYE        | 23,750 |
| Professional subscription to ZICA | 1,200  |

Her NAPSA contribution amounted to 5% of her basic salary in the tax year 2019.

During the tax year 2019, she also received the following income:

|                                      | K      |
|--------------------------------------|--------|
| Rent received                        | 18,700 |
| Royalties received                   | 10,200 |
| Consultancy fees                     | 38,250 |
| Dividends from Estel Zambia Limited  | 8,500  |
| Interest from a bank deposit account | 4,250  |

The amounts shown above were the actual amounts received by Helen in all cases.

Helen commenced her consultancy business on 1 December 2019 and the amount of consultancy fee shown above was the income she received for the tax year 2019, there were no allowable expenses in respect of this income.

The rent of K18,700 above is in respect of a furnished cottage owned by Helen. In the tax year 2019 it was let out on a monthly basis and Helen incurred total running expenses of K8,950. These expenses were all incurred wholly and exclusively for letting of the cottage.

**Required:**

- (a) Calculate the total income tax payable by Helen for the tax year 2019. (15 marks)
- (b) Explain the tax treatment of expenses incurred wholly and exclusively for the letting of the furnished cottage. (3 marks)
- (c) State the due date for submitting returns and making payments under PAYE. (2 marks)
- (d) Explain the tax consequences of late payment of income tax deducted from emoluments under the Pay As You Earn system. (2 marks)
- (e) Explain the consequences of paying the withholding tax late. (3 marks)

**[Total: 25marks]**

## SECTION B

There are **THREE (3)** questions in this section. Attempt any **TWO (2)** questions.

### **QUESTION THREE**

(a) Namwinga, a sole trader, runs a business as Nana Wholesaler importing clothes and other goods from South Africa which she then sells in Zambia. Her annual turnover has always exceeded K800,000. During the year to 31 December 2019, Namwinga prepared the following statement of profit or loss:

|                                       | Note | <b><u>K</u></b> | <b><u>K</u></b> |
|---------------------------------------|------|-----------------|-----------------|
| Gross profit                          |      |                 | 324,000         |
| <b>Expenses</b>                       |      |                 |                 |
| Wages and salaries                    |      | 100,400         |                 |
| Rent and rates                        | 1    | 25,800          |                 |
| Light and heat                        | 1    | 10,500          |                 |
| Depreciation of fixtures and fittings |      | 3,000           |                 |
| Insurance                             |      | 7,100           |                 |
| Travelling and entertaining expenses  | 2    | 21,500          |                 |
| Bad debts                             | 3    | 13,500          |                 |
| Depreciation of vehicles              |      | 15,000          |                 |
| Motor car expenses                    | 4    | 9,000           |                 |
| Sundry expenses                       | 5    | 1,500           |                 |
| Legal and profession charges          | 6    | 9,500           |                 |
| Interest on bank overdraft            | 1    | 3,000           |                 |
| Van expenses                          |      | 18,600          |                 |
| Telephone                             | 9    | 6,700           |                 |
| Repairs and renewals                  | 7    | <u>7,000</u>    |                 |
|                                       |      | (252,100)       |                 |
| Net profit for the year               |      |                 | <u>71,900</u>   |

#### **Note: 1 Rent & rates and Light & heat**

It has been agreed with the Commissioner General that 10% of the rent & rates and light & heat relates to Namwinga's living accommodation.

#### **Note: 2 travelling and entertaining expenses**

| <b>K</b>  |                      |
|---|----------------------|
| Namwinga's business travelling expenses                                     | 10,350               |
| Christmas presents for staff  | 500                  |
| Entertaining suppliers  | 5,500                |
| Entertaining customers  | 4,600                |
| Gifts to customers of Calendars bearing business name each costing K50 each | <u>550</u>           |
|   | <b><u>21,500</u></b> |



**Note: 3 Bad debts**

|  |                      |
|--|----------------------|
| Trading debts written off                    | 7,500                |
| Increase in specific provision for bad debts | 3,500                |
| Loan to employees written off                | 3,400                |
| Trade debt recovered (written off last year) | <u>(900)</u>         |
|  | <b><u>13,500</u></b> |

**Note: 4 Motor car expenses**

|                               |                     |
|-------------------------------|---------------------|
| Namwinga's motor car expenses | 6,600               |
| Salesman's motor car expenses | <u>2,400</u>        |
|                               | <b><u>9,000</u></b> |

Namwinga's total mileage for the year was 12,000 Kilometres. During the year she drove 4000 kilometres for private purposes.

**Note: 5 Sundry expenses**

|   |                     |
|---|---------------------|
| Donation to an approved public benefit organisation | 60                  |
| Donation to local political party                   | 200                 |
| Wedding gift to a member of staff                   | 90                  |
| Namwinga's squash club subscription                 | 500                 |
| Advertising in trade press                          | <u>650</u>          |
|   | <b><u>1,500</u></b> |

**Note: 6 Legal and professional charges****K**

|   |                     |
|---|---------------------|
| Cost of renewing a lease on business premises                               | 500                 |
| Accountancy   | 6,050               |
| Debt collection   | 650                 |
| Legal fees in connection with an action by an employee for unfair dismissal | <u>2,300</u>        |
|   | <b><u>9,500</u></b> |

Included in Namwinga's accountancy fee is K1,900 for taxation services. Of this K400 is for the normal taxation work involved in submitting accounts to ZRA. The balance is in respect of calculating Namwinga's tax liability following the disposal of some shares that she had owned in X Ltd.

**Note: 7 Repairs and renewals****K**

|   |                     |
|---|---------------------|
| Repairs to the office photocopiers                            | 350                 |
| New printer for the office computer                           | 1,300               |
| Installation of the new central heating system for the office | 4,400               |
| Decorating the office   | <u>950</u>          |
|   | <b><u>7,000</u></b> |

**Note: 8 Drawings**

During the year ended 31 December 2019 Namwinga took various clothes out of the stock for her and her family's use without paying for them. These goods cost K900 and would have normally been sold at a mark up to 30%.

**Note: 9 Telephone**

Namwinga makes business calls for his private telephone and he estimates the business use as two-fifth (2/5), the total of his private telephone bill for the year was K900.

**Note 10: Capital allowances**

Capital allowances for the tax year 2019 have been agreed at K17,600.

**Required:**

Calculate the income tax payable by Namwinga for the tax year 2019. (15 marks)

(b) Taxation plays a very important role in the economy.

**Required:**

Explain five (5) key functions of Taxation in an economy such as Zambia. (10 marks)

**[Total: 25 Marks]**

**QUESTION FOUR**

(a) VNP Limited imported a 2000cc Toyota Allion car from Japan on 1 January 2019 which was manufactured in January 2013. The cost price of the car was \$5,700. The company paid freight charges of \$1,900 and Insurance of \$1,200. Incidental costs incurred from Dare-slam to the point of entry into Zambia amounted to \$980. The car was manufactured on 1 January 2013. Motor vehicle registration and other costs incurred within Zambia amounted to \$3,000. The exchange rate as quoted by the Bank of Zambia and approved by the Commissioner General averaged K11.40 per US\$1 at the date of importation. For the purposes of calculating import duties, the car is classified as a sedan.

**Required:**

- (i) Calculate the value for duty purposes in Kwacha, customs duty and excise duty in relation to the importation of the motor vehicle. (5 marks)
  - (ii) Explain the difference between the transaction value and transaction value of similar goods methods as they are used in the valuation of imports. (2 marks)
- (b) In relation to taxation of farming enterprises;
- (i) Explain the difference between farm improvements and farm works. (2 marks)

- (ii) Explain the circumstances under which a farmer can be allowed to average income from farming. (4 marks)

(c) A tax system is a legal system of assessing and collecting taxes.

**Required:**

Explain any four (4) qualities of a good tax system (4 marks)

(d) The Central Government use taxation as their main source of revenue to finance public expenditure.

**Required:**

Explain other ways, apart from taxation, through which the Central Government can raise revenue. (8 marks)

**[Total: 25 Marks]**

**QUESTION FIVE**

(a) Zambiri Ltd is a Zambian company which commenced trading on 1 December 2018. In the tax year 2019, the company earned a turnover of K800,000 and is wondering as to what type of tax it is required to pay. You have then been approached by the Managing director of Zambiri Ltd seeking advice regarding the type of tax the company will be required to pay to Zambia Revenue authority.

**Required:**

(i) Explain the types of persons who should register with Zambia Revenue Authority for turnover tax system. (3 marks)

(ii) State the due date for the payment of turnover tax and explain the consequences of paying the tax late. (2 marks)

(iii) State any five (5) persons who are not eligible to pay turnover tax. (5 marks)

(b) Property transfer tax is tax chargeable on any person who transfers property to another person. Property transfer tax is calculated on the realised value.

**Required:**

(i) Explain any four (4) properties on which property transfer tax is charged. (2 marks)

(ii) Explain how transfers made to immediate family members and transfers made by one company to another within the same group are treated for property transfer tax purposes. (4 marks)

(c) In the tax year 2019 Zambiri Ltd had the following capital transactions:

(i) On 5 May 2019, the company sold a commercial plot for K170,000 and paid an estate agent K15,000 for arranging the sale and incurred an additional K5,000 in connection with legal fees of transferring title to the plot. The plot

was acquired on 5 June 2014 at a cost of K110,000. The open market value of the commercial plot as determined by government valuation officers was K155,000 on the date of the transfer.

- (ii) On 10 May 2019, the company sold two trucks which were used in the transportation business for K70,000 each. The trucks were acquired a year ago at a cost of K90,000 each and the market value of each truck was K75,000.
- (iii) On 16 May 2019, the company acquired 30 hectares of farm land owned by Chisamba farms in the Chisamba area, at a discounted price of K90,000. The open market value of the 30 hectares of land on that date was determined by government valuation officers to be K110,000.
- (iv) On 18 May 2019, the company sold 150,000 K2 shares held in QM plc a listed company at K5 per share, being the price at which the shares were quoted. These shares were acquired two years ago at K3 per share, being the price at which the shares were floated in an initial public offer.
- (v) On 21 May 2019, the company sold 200 000 K1 shares it held in DC Ltd a company not listed on the Lusaka Stock Exchange for K450,000 after incurring incidental share disposal costs of K7,500. The company acquired the shares on 6 July 2010 at a total cost of K350,000. The market value of the shares determined using approved valuation methods was K460,000.
- (vi) On 30 May 2019 the company let out the house charging gross monthly rentals of K4,500. The house had an open market value of K280,000 on that date and was acquired on 10 January 2015 at a cost of K150,000.

**Required:**

Explain the property transfer tax implications of each of the above transactions on the company and calculate any property transfer tax payable on each transaction for the tax year 2019.

(9 marks)

**[Total: 25 Marks]**

**END OF PAPER**

## DA10: TAXATIONSUGGESTED SOLUTIONS

### SOLUTION ONE

(a) BA Plc

Capital allowances for the tax year 2019

|  | Cost/ITV<br>K   | Capital allowances<br>K |
|--|-----------------|-------------------------|
| Manufacturing equipment                              |                 |                         |
| ITV b/f  | 80,000          |                         |
| W & T@50% (K160,000 x 50%)                           | <u>(80,000)</u> | 80,000                  |
| ITV c/f  | <u>Nil</u>      |                         |
| Office Equipment                                     |                 |                         |
| ITV b/f  | 20,000          |                         |
| Disposal proceeds of K50,000<br>(restricted to cost) | <u>(40,000)</u> |                         |
| Balancing charge                                     | <u>(20,000)</u> | (20,000)                |
| Factory building                                     |                 |                         |
| ITV b/f  | 270,000         |                         |
| W & T @5% (K600,000 x 5%)                            | <u>(30,000)</u> | 30,000                  |
| ITV c/f  | <u>240,000</u>  |                         |
| Office building                                      |                 |                         |
| ITV b/f  | 240,000         |                         |
| W & T @2% (K400,000 x 2%)                            | <u>(8,000)</u>  | 8,000                   |
| ITV c/f  | <u>232,000</u>  |                         |
| Toyota Prado car                                     |                 |                         |
| ITV b/f  | 224,000         |                         |
| W&T @20% (K280,000 x 20%)                            | <u>(56,000)</u> | 56,000                  |
| ITV c/f  | <u>168,000</u>  |                         |
| Office Computer                                      |                 |                         |
| Cost   | 60,000          |                         |
| W&T @25% (K60,000 x 25%)                             | <u>(15,000)</u> | 15,000                  |
| ITV c/f  | <u>45,000</u>   |                         |
| Total capital allowances                             |                 | <u>169,000</u>          |

(b) BA Plc

Adjusted business profit for the tax year 2019

|                   | K | K       |
|-------------------|---|---------|
| Profit before tax |   | 570,000 |
| Add:              |   |         |

|  |                |                  |
|--|----------------|------------------|
| Depreciation                           | 121,600        |                  |
| Entertaining suppliers                 | 52,000         |                  |
| Penalty for late submission of returns | 12,780         |                  |
| Free accommodation benefit             |                |                  |
| K420,000 x 30%                         | 126,000        |                  |
| Canteen expenses                       | 211,400        |                  |
| Personal-to-holder car benefit         | <u>40,000</u>  |                  |
|  |                | <u>563,780</u>   |
|  |                | 1,133,780        |
| Less:                                  |                |                  |
| Rental income                          | 36,000         |                  |
| Bank interest                          | 35,700         |                  |
| Royalties                              | 68,000         |                  |
| Profit on sale of office equipment     | 20,300         |                  |
| Capital allowances (a)                 | <u>169,000</u> |                  |
|  |                | <u>(329,000)</u> |
| Taxable business profit                |                | <u>804,780</u>   |

(c) BA Plc

Provisional income tax paid for the tax year 2019

|                                   |                |
|-----------------------------------|----------------|
|                                   | K              |
| Estimated taxable business profit | <u>600,000</u> |
| Income tax @35% (K600,000 x 35%)  | <u>210,000</u> |

Quarterly installment =  $K210,000/4 = 52,500$

|                                     |                        |
|-------------------------------------|------------------------|
| Due dates                           | Amount of tax paid (K) |
| 31 March 2019 (10 April 2019)       | 52,500                 |
| 30 June 2019 (10 July 2019)         | 52,500                 |
| 30 September 2019 (10 October 2019) | 52,500                 |
| 31 December 2019 (10 January 2020)  | 52,000                 |

(d) BA Plc

Income tax payable for the tax year 2019

|                                    |                |
|------------------------------------|----------------|
|                                    | K              |
| Adjusted business profit           | 804,780        |
| Add:                               |                |
| Royalties (K68,000 x 100/85)       | 80,000         |
| Bank interest (K35,700 x 100/85)   | <u>42,000</u>  |
| Total taxable income               | <u>926,780</u> |
| Income tax @35% x K926,780         | 324,373        |
| Less:                              |                |
| Provisional income tax paid        | (210,000)      |
| WHT-Royalties (K80,000 x 15%)      | (12,000)       |
| WHT- Bank interest (K42,000 x 15%) | <u>(6,300)</u> |

Income tax payable

96,073

## SOLUTION TWO

(a) Helen Zulu's Personal income tax computation for the tax year 2019

|   |  |                          |                |
|---|--|--------------------------|----------------|
| K | K  |                          |                |
|   |  | <u>Earned Income</u>     |                |
|   | Salary (180 000x 10/12)                  |                          | 150,000        |
|   | Housing allowance (1200 x 10)            |                          | 12,000         |
|   | General purpose allowance (9000 x 10/12) |                          | 7,500          |
|   | Commuted car allowance (600 x 10)        |                          | 6,000          |
|   | Electricity allowance (400 x 10)         |                          | 4,000          |
|   | General purpose bonus                    |                          | 45,000         |
|   | Leave pay (90 x K30)                     | <u>2,700</u>             | 227,200        |
|   |  | <u>Investment Income</u> |                |
|   | Royalties received (10 200 x 100/85)     |                          | 12,000         |
|   | Consultancy (38,250 x 100/85)            | <u>45,000</u>            | <u>57,000</u>  |
|   | <u>Less allowable deductions</u>         | 284,200                  |                |
|   | Professional subscriptions               | <u>(1 200)</u>           |                |
|   | Assessable income                        |                          | 283,000        |
|   | Less tax free income                     | <u>(39,600)</u>          | <u>243,400</u> |
|   | Income Tax                               |                          |                |
|   | Next K9,600@25%                          | 2,400                    |                |
|   | Next K25,200@ 30%                        |                          | 7,560          |
|   | Balance K208,600@ 37.5%                  |                          | <u>78,225</u>  |
|   | Income tax liability                     |                          | 88,185         |
|   | Less:                                    |                          |                |
|   | PAYE                                     |                          | (23,750)       |
|   | WHT- Royalties 12 000 x 15%              |                          | (1,800)        |
|   | WHT- Consultancy (45,000 x15%)           | <u>(6,750)</u>           |                |
|   | Final income tax payable                 |                          | <u>55,885</u>  |

(b) Expenses incurred wholly and exclusively for letting of property are not allowable for the purpose of computing tax payable on rental income. This is because the only tax payable on the rental income is withholding tax which is charged on gross rental income and it is the final tax.

(c) Returns and payments under PAYE are made to the Zambia Revenue Authority not later than the 10<sup>th</sup> day following the end of the month in which the income was deducted.

(d) A penalty of 5% of the unpaid tax is chargeable per month the tax remains unpaid or part thereof.

Interest is chargeable on the overdue tax from the due date to the date the tax is actually paid at the BOZ discount rate plus 2%



(e) Withholding tax is due for payment on the 14<sup>th</sup> day following the end of the month to which the tax relates. If the withholding tax is paid late, the penalty is charged at a rate of 5% of the tax payable per month or part thereof. Interest is also charged on overdue tax at a rate of 2% above the Bank of Zambia discount rate.

### SOLUTION THREE

(a) Namwinga

Adjusted business profit for the tax year 2019

|   | K          | K               |
|---|------------|-----------------|
| Profit per accounts                           |            | 71,900          |
| Add:  |            |                 |
| Rent and rate (25,800 X 10%)                  | 2,580      |                 |
| Light and heat (10,500 X 10%)                 | 1,050      |                 |
| Depreciation of fixtures and fittings         | 3,000      |                 |
| Entertaining suppliers                        | 5,500      |                 |
| Entertaining customers                        | 4,600      |                 |
| Employee loan written off                     | 3,400      |                 |
| Depreciation of vehicles                      | 15,000     |                 |
| Private motor expenses (6,600 X 4,000/12,000) | 2,200      |                 |
| Political donation                            | 200        |                 |
| Squash club subscription                      | 500        |                 |
| Taxation services re shares" disposal         | 1,500      |                 |
| New printer                                   | 1,300      |                 |
| Central heating                               | 4,400      |                 |
| Own consumption (900 X 130/100)               | 1,170      |                 |
| Private telephone use (900 X 3/5)             | <u>540</u> |                 |
|   |            | <u>46,940</u>   |
|   |            | 118,840         |
| Less:   |            |                 |
| Capital allowances                            |            | <u>(17,600)</u> |
| Adjusted business profits                     |            | <u>101,240</u>  |

#### Computation

|                        |               |
|------------------------|---------------|
| First K39,600 @0%      | 0             |
| Next K9,600 @25%       | 2,400         |
| Next K25,200 @30%      | 7,560         |
| Balance K26,840 @37.5% | <u>10,065</u> |
| Income tax payable     | <u>20,025</u> |

(b) Taxation is the process through which the central government raises its revenue to meet public expenditure. The functions of taxation include:

- i. **To raise revenue for the central government-** The main function of taxation is to raise public revenue for the central government that goes towards the financing of the National Budget and provision of public goods for the benefit of all citizens of the country.
- ii. **Redistribution of income and wealth-** Taxes are used by government to redistribute income from higher to lower income households and thus remove the apparent inequalities that income is bound to bring among the Country's citizenry i.e. the Government will generally collect higher taxes from the rich through progressive tax systems and redistribute the funds collected to the

poor and thus prevent the poor from getting poorer and the rich getting richer at the expense of the poor.

- iii. **Influencing economic activity in the country (Economic regulation)** - taxes are used to influence economic activity in the country. This can be done through giving tax incentives such as capital allowances to individuals and institutions that engage in activities that contribute towards economic growth and encouraging savings through imposition of low rates of withholding taxes on investment income.
- iv. **To act as a fiscal tool to curb the effects of inflation-** taxes ultimately reduce the disposable incomes of the taxpayers and this in turn reduces their propensity to spend thus reducing the quantity of money in supply in the economy at any given time.
- v. **To protect the local Zambian industries from unfair foreign competition-** The tariffs levied on imported goods aim at raising the prices of those goods that come from low production cost Countries and as such would put local industries at a disadvantage in terms of pricing if no taxes were levied on them.
- vi. **Maintaining the well-being of the environment-** Taxes are used to maintain the well-being of the environment by imposing heavy taxes on income and gains arising from activities which are not friendly to the environment such as those contributing to global warming, pollution etc.

## SOLUTION FOUR

### (a) Customs and excise

|     |                                   |                |
|-----|-----------------------------------|----------------|
| (i) | Value for duty purposes           | \$             |
|     | Cost                              | 5,700          |
|     | Insurance                         | 1,200          |
|     | Freight charges                   | 1,900          |
|     | Incidental costs                  | <u>980</u>     |
|     |                                   | 9,780          |
|     | Exchange rate                     | <u>K11.40</u>  |
|     | Value for duty purposes in Kwacha | <u>111,492</u> |

|              |         |
|--------------|---------|
| Customs duty | K8,423  |
| Excise duty  | K10,950 |

The customs and excise duty are obtained from the import taxes table.

- (ii) Transaction value is the price actually paid or payable including insurance, freight and other incidental costs to the extent that they are paid whereas transaction value for similar goods is the price of similar goods imported by another importer into Zambia from the same source, including insurance, freight and other incidental costs.

### (b) Farming taxation

- (i) Farm improvements are permanent structures put on the farm by the farmer and include farm dwelling, fencing, cowshed, and storage facilities. Farm works on the other hand are any works done on the farm land and include water conservation, clearing & stumping, geographical survey, wells, boreholes and prevention of soil erosion.
- (ii) A farmer can be allowed to average income from farming and fishing for two consecutive tax years if:
- A farmer made a loss in one consecutive tax year and a profit in the other tax year.
  - The profit for one consecutive tax year is substantially lower than the profit for the other tax year.

### (c) The following are the qualities of a good tax system:

- Taxation should bear as lightly as possible on production. Taxes should not be so high that they make production very expensive.
- Taxes should be easy and cheap to collect, and fall directly on the ultimate payer.
- Taxes should be certain; if tax rules are complex they can be evaded.
- Taxes should bear equally so as to give no individual an advantage. i.e taxes should be charged on the ability to pay.

- v. A tax should be compatible with foreign tax systems, e.g in the case of Zambia tax system should be compatible with tax systems of the SADC and COMESA.
- vi. Taxes should be flexible. i.e it should automatically respond to changes in the rate of inflation.

(d) The following are other ways through which the government can raise revenue:

- i. **Borrowing from international financial institutions**  
The Government can borrow from the International Monetary Fund (IMF) and other financial institutions in order to raise money to finance certain projects.
- ii. **Privatization of state owned enterprises**  
This is the transfer of state owned enterprises to the private sector. The Government can raise huge amounts of revenue if there are state owned institutions to sell.
- iii. **Donor funding**  
Donor agencies have been set up to provide funding to poor countries for clearly defined projects. This cannot be used by Government as a major source of revenue to meet recurring public expenditure.
- iv. **Issue of Government securities**  
The Government may be able to borrow locally through the issue of government securities i.e government bonds and treasury bills.

## **SOLUTION FIVE**

### **(a) Turnover tax**

- (i) Types of persons who should register with ZRA for turnover tax purposes:
1. All persons carrying on businesses (other than excluded persons) whose annual turnover is not more than K800,000 (i.e. K800,000 or less)
  2. Any Person whose Business earnings are subject to Withholding Tax and it is not the final tax. Examples include rental income, commissions, interest earned by companies and royalties earned by residents.
- (ii) The due date for the payment of the tax is the 14th day following the end of the month to which the tax relates. A tax payer can elect to pay turnover tax on a quarterly basis in which case the due date will be the 14th day following the end of the quarter to which the tax relates.

Payment of turnover tax late attracts a penalty of 5% of the overdue tax per month or part thereof. Additionally interest is charged on the overdue tax at the BOZ discount rate plus 2%

- (iii) The following persons are not required to pay turnover tax:
- i. Any person whose annual business earnings are more than K800,000.
  - ii. Any person whose annual business earnings are less than K800,000 but has voluntarily registered for VAT.
  - iii. Partnership carrying on any type of business regardless of whether the annual earnings are more than K800,000.
  - iv. Any person whose income constitutes income from partnership.
  - v. Any person whose earnings are subjected to withholding tax where withholding tax is the final tax
  - vi. Any person carrying on mining operations under Mines and mines Development act
  - vii. Any person carrying on public passenger transportation business.

### **(b) Property Transfer Tax**

- (i) The following are what constitute property for the purposes of property transfer tax:
- i. Any land in Zambia (including any building on that land)
  - ii. Any building, structure or the improvements thereon.
  - iii. Any share issued by a company in Zambia that is not listed on Lusaka Stock Exchange
  - iv. Any mining right or an interest in a mining right
  - v. Any intellectual property
- (ii) Transfers to immediate family members  
Where transfer of property is made to an immediate family member, the realised value of such a transfer is the actual price received by the transferor. If no price has been charged on the transfer of such properties, the realised value is treated as having a realised value of nil and therefore no property transfer tax is charged.

Transfers within the group of companies

Where a company transfers property to another company within the same group for the purpose of internal reorganization of the group, such a transfer is deemed to have a realised value of nil by the Commissioner General, and therefore, no property transfer tax is charged.

**(c) Property transfer tax implications**

i. Sale of commercial plot :

The realised value of land is the higher of its open market valuation and the agreed contract price. The realised value of the commercial plot will therefore be K170,000 as this is higher than the open market value.

Incidental costs of sale such as estate agents fees are not deductible for the purposes of determining the realised value.

Property transfer tax will be payable on the transfer of the commercial property and will amount to:  $K170,000 \times 5\% = K8,500$

ii. Sale of Trucks

Motor vehicles do not qualify as property for the purposes of property transfer tax. Therefore, no property transfer tax will be payable on the disposal of the trucks.

iii. Farm land

Property transfer tax is payable by the transferor of the property and not the transferee.

iv. Shares in QM plc

Transfer of shares in a company that is listed is not chargeable property under the Property Transfer Act and therefore, the company will not pay any property transfer tax on the transfer of the shares in QM plc.

v. Shares in DC Ltd

Property transfer tax will be payable on the sale of shares in DC Ltd because the company is not listed on the Lusaka Stock Exchange.

Property transfer tax will be paid on the realised value of the shares which is determined as the higher of the nominal value of the shares and their open market valuation and will amount to:  $K460,000 \times 5\% = K23,000$ .

vi. Letting of house

Letting out of property does not qualify as a transfer of property for property transfer tax purposes and therefore no property tax will be payable by Charles on this transaction.

**END OF SOLUTIONS**



DIPLOMA IN ACCOUNTANCY PROGRAMME EXAMINATIONS

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LEVEL TWO

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DA: 11 PRINCIPLES OF AUDITING

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THURSDAY 12 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

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

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



## SECTION A- TWO COMPULSORY QUESTIONS

Attempt **BOTH** questions in this section.

### **QUESTION ONE**

You are an Audit Senior of Mango & Co (Mango). Mango were recently appointed as external auditors of Samba Co (Samba) for the year ending 31 October 2019 and you are in the process of planning the audit. The previous auditors issued an unmodified audit opinion last year. You are aware that Mango was appointed auditors of Samba because of lowballing and the Audit Partner emphasised the importance of audit working papers to Mango during the audit planning meeting. Samba is owned by ten shareholders and none of them is in the management of Samba and as a result they rely on the Managing Director, production manager and a small accounts department which is headed by the Finance Manager as there is no Finance Director.

Samba's principal activity is the manufacture and sale of expensive high quality cars which are sold to famous football players. Each car has unique features specified by each player in the contract and the same car cannot be manufactured for another customer. Samba requires customers to pay 75% of the total order value at the time the order is placed and the remaining 25% when the car is delivered to the customer and signed for. It is expected that at the end of the year, there will be a material amount of finished cars awaiting despatch. The finance manager will estimate the value of these cars at order value.

All cars have a three year warranty and the finance manager has only made a provision of 80% in respect of finished cars awaiting despatch. The old factory is currently undergoing extensive refurbishment in order to make it suitable for car manufacturing. Due to business expansion, the new factory was acquired and the acquisition was funded by a 10% bank loan repayable over 10 years and has profit related covenants attached to it and if they are breached the remaining loan balance will become repayable immediately. The managing director's bonus scheme based on achieving a target profit before tax was introduced during the year.

In October, there was a fire in one of the car warehouses; inventory of K180,000,000 was damaged and this has been written down to its residual value of K40,000, 000. An insurance claim has been submitted for the difference of K140,000,000. Samba is still waiting to hear from the insurance company with regards to this claim, but has included the insurance claim amount within the financial statements.

#### **Required:**

- (a) List four (4) sources of information that would be relevant in gaining an understanding of Samba Co, and for each source explain the information you would expect to obtain. (6 marks)
- (b) Using the information provided, identify and describe six(6) audit risks and explain the auditor's response to each risk in planning the audit of Samba Co. (12 marks)
- (c) Explain the importance of audit working papers to Mango & Co. (4 marks)
- (d) Explain the meaning of lowballing and whether it is allowed. (3 marks)

**[Total: 25 Marks]**

## **QUESTION TWO**

ZamCell Co (ZamCell) is a manufacturer of mobile phones. It has factories across the country and its customer base includes retailers as well as individuals. The company's year end is 31 October 2019. You are an audit senior of Kalulu & Co (Kalulu) and are currently reviewing documentation of ZamCell's internal controls in preparation for the first audit.

Customers can order mobile phones on-line. ZamCell allows both cash and credit sales and cash receipts are banked every two weeks by the chief cashier. Currently inventory levels are checked after the orders are placed and accepted. Mobile phones are despatched via local agents; however, there is no record of customer signatures to acknowledge that the customer has received the mobile phone. Recently there have been customer complaints that it takes approximately three weeks between sales orders and receipt of mobile phones, instead of the agreed three days.

ZamCell gives its customers credit facilities and credit limits are approved by sales ledger clerks. The customers who place bulk orders are given sales discounts which are approved by assistant sales representatives. Raw materials used in the manufacturing of mobile phone are purchased from a wide range of local and international suppliers, trade payables and supplier statement reconciliations are performed quarterly. Any changes to supplier details in the purchase ledger master file are done by purchase ledger clerk and are approved by senior purchase ledger clerk. During the year ZamCell invested heavily in new plant and equipment in order to improve the manufacturing process of mobile phones. Purchase requisitions for all new plant and equipment have been authorised by production supervisor.

The finance director of ZamCell informed the Audit Partner that the reason for appointing Kalulu & Co as auditors was because they audit other mobile phone companies, including ZamCell's main competitor. The Finance Director has asked how Kalulu & Co keeps information obtained during the audit confidential. The Audit Partner assured the Finance Director that appropriate safeguards to manage conflict of interest and threats to objectivity and independence of auditors will be in place.

### **Required:**

- (a) In respect of the internal controls of ZamCell Co:
- (i) Identify and explain five (5) deficiencies and their implications; (5 marks)
  - (ii) Recommend a control to address each of these deficiencies; and (5 marks)
  - (iii) Describe a test of control Kalulu & Co would perform to assess whether each of these controls, if implemented, is operating effectively. (5 marks)
- (b) Explain five (5) safeguards which Kalulu & Co should implement to ensure that conflict of interest is properly managed. (5 marks)
- (c) State five (5) threats contained within the Code of Ethics and Conduct and for each threat give one (1) example of a situation that may create the threat. (5 marks)

**[Total: 25 Marks]**

## SECTION B

There are **THREE (3)** questions in this section. Attempt any **TWO (2)** questions

### **QUESTION THREE**

You are the Audit Manager of Kandolo & Co (Kandolo) and you are aware of the following:

- (a) The auditor has responsibilities in relation to events occurring between the date of the financial statements and the date the auditor's report is signed and facts discovered after the date the auditor's report is signed but before the financial statements are issued. Guidance is given in ISA 560 Subsequent events.

**Required:**

Explain three (3) auditor's responsibilities in relation to each period. (6 marks)

- (b) Accounting estimates examples include allowances for receivables, depreciation methods, provisions etc. Guidance is given in ISA 540 Auditing accounting estimates.

**Required:**

Explain five (5) audit procedures relevant to the audit of accounting estimates. (5 marks)

- (c) The auditor has the responsibility to design audit procedures to obtain sufficient appropriate audit evidence. Guidance is given in ISA 500 Audit evidence. One of your audit clients got a bank loan of K120,000,000 on 1 August 2019 to help finance development of new products. The loan carries an annual interest rate of 15%, with interest payments made annually in arrears. The loan will be repaid over 10 years. The financial year end is 31 October 2019.

**Required:**

- (i) Explain the difference between sufficient audit evidence and appropriate audit evidence, giving an example how each may be affected or influenced. (4 marks)

- (ii) State four (4) sources of audit evidence that would help you obtain sufficient appropriate audit evidence in respect of the long-term bank loan. (4 marks)

- (d) Your audit partner has requested you to explain to your audit trainee the differences between the terms below.

**Required:**

Explain the differences between test data and audit software; and trade receivables positive confirmation and trade receivables negative confirmation. (6 marks)

**[Total: 25 Marks]**

## **QUESTION FOUR**

- (a) You are the audit manager of Zonda & Co (Zonda) and you are currently reviewing the audit senior's recommendations for the auditor's reports extracts for three clients. The financial year end in each case is 31 October 2019. Details are as follows:

Kumba Co

Kumba Co changed its accounting policy for inventory valuation at the beginning of the year from first in first out (FIFO) to average cost (AVCO). The change has been accounted for prospectively by the finance director. The difference in inventory value between the two valuation methods is K500, 000. The amount is material. The audit senior has concluded that unmodified opinion should be given.

Wanda Co

The chairman's report in the annual report of Wanda Co states that profit margin has increased by 20%. However, a note to the financial statements shows that profit margin has increased by 15%. The audit senior has concluded that modified 'expect for' opinion should be given with emphasis of matter paragraph.

Manga Co

An amount of K950, 000 has not been recognised for the restructuring cost. Management approved the closure at a board meeting on 15 September 2019 and announced the closure to employees on 30 September 2019. The factory will be closed on 31 December 2019. The amount is material and pervasive. The audit senior has concluded that disclaimer of opinion should be given.

### **Required:**

For each situation, comment on the appropriateness of the audit senior's proposals for the auditor's reports extracts and suggest an appropriate opinion (if any).

(15 marks)

- (b) You are the audit manager of Mwana & Co (Mwana) and your audit partner has requested you to identify and explain financial statement assertions relevant to classes of transactions and events; and substantive procedures relevant to the audit of account balances.

### **Required:**

- (i) Identify and explain five (5) financial statement assertions relevant to classes of transactions and events for the year under audit. (5 marks)
- (ii) Identify and explain five (5) substantive procedures relevant to the audit of newly acquired property (land and buildings). (5 marks)

**[Total: 25 Marks]**

## **QUESTION FIVE**

- (a) 5G Technology Telecoms (5G Technology) has been in business for close to 20 years selling Telecommunication services and has recently become a listed company on the Lusaka Stock Exchange (LUSE), this is after receiving the go ahead from ZICTA. As a requirement for all listed Plc companies on the LUSE and in accordance with corporate governance principles, 5G Technology is required to maintain an internal audit department. However, the Directors are of the view that the team needs to grow in size and specialist skills will be required considering the nature of the business and size of the entity, but they are not sure whether to recruit more internal auditors, or to outsource the whole function to the external auditors, KJL Partners Chartered Accountants.

5G Technology is required to comply with corporate governance principles as this is a requirement to maintain its listed status on LUSE, in view of that the Chief Financial Officer has undertaken a review of whether or not the 5G Technology complies with corporate governance requirements.

Mr.Habeenzu Banda is the chairman of 5G Technology and he was also the chief executive director though due to retire from his role as Chief Executive in the following month. The board of directors of 5G Technology comprise of eight board members of which three are non-executive directors. However due to the nature of the business Mr. Banda is not certain as to whether the number of non-executive directors will be sufficient for the board. In view of that he is considering appointing one of his close relatives, who is a retired board member of a renowned open pit Mine.

The Chief Financial Officer, John Mulenga, decides on the amount of remuneration each director is paid. Currently all the remuneration is in the form of annual bonus based on profits. Mr. Mulenga is considering setting up an audit committee, but has not under taken this task yet as he is very busy.

5G Technology is very famous in Zambia due to innovation and its large following of youth subscribers. As a result, the company has a large number of shareholders. The directors believe that it is impractical and too costly to hold an annual general meeting of shareholders at Avani resort in Livingstone. Instead, the board has suggested sending out the financial statements and any voting resolution by email; shareholders can then vote on the resolution via email.

### **Required:**

- (a) Explain the advantages and disadvantages of 5G Technologies outsourcing the internal audit department. (8 marks)
- (b) In respect of corporate governance of 5G Technologies:
- (i) Identify and explain Four corporate governance weaknesses; and (5 marks)
  - (ii) Provide a recommendation to address each weakness (5 marks)

- (b) "ZamAgric", a large listed and upcoming company, was formed on 25 July 2019 in order to invest in the agriculture sector and reduce poverty in the country. The directors are unsure as to their responsibilities, and the nature of their relationships with the external auditors. The Audit Partner has asked you to visit the client and explain to the directors the more fundamental aspects of their accountability.

Prepare briefing notes to explain to the Directors of Zam Agric:

- (a) Explain how the auditor of a company is usually appointed under legislation?  
(4 marks)
- (b) The responsibilities of the directors in relation to the accounting function of the company.  
(3 marks)

**[Total: 25 Marks]**

**END OF PAPER**

## DA11 SUGGESTED SOLUTIONS

### SOLUTION ONE

*(a) Understanding the entity and its environment*

| <i>Source of information</i>                     | <i>Information expect to obtain</i>  |
|--|--|
| Discussions with management                      | Information relating to any important matters that have occurred/ or changes to the company during the year. |
| Previous year financial statements               | Information relating to the company's key accounting policies, disclosure notes, size etc.                   |
| Previous year management reports                 | Information relating to the company's internal control weaknesses noted in the previous year.                |
| Samba's (company) website                        | Information relating to any important issues that have occurred/ or changes to the company during the year.  |
| Samba (company) accounting systems records/notes | Information on how key accounting systems operate.   |
| Current year budgets and management accounts     | Financial information relating to changes for the year to date.  |
| Permanent audit file                             | Information relating to matters of continuing importance for the company and the auditors.                   |
| Financial statements of competitors              | Information about the company's competitors, relating to their financial results and accounting policies.    |
| Industry laws and regulations                    | Information relating to how the industry is regulated.   |

*(b)*

| <i>Audit risks</i>   | <i>Responses</i>   |
|--|--|
| The firm has recently been appointed as auditor (first audit). There is a risk auditors may lack knowledge and understanding of the business, which may increase detection risk.   | Review previous auditor's working papers and consider performing additional substantive procedures on opening balances.  |
| There is no finance director. This may increase control risk and financial statements may be materially misstated due to undetected errors or frauds (weak control environment).   | Assess internal controls and if they are weak, detailed substantive testing will be needed and professional skepticism should be exercised throughout the audit.                         |
| The customers are required to pay 75% on ordering and 25% following delivery. There is a risk revenue may be overstated if recognised when order is placed. It should be treated as deferred income until the car is delivered and signed for. | Enquire from management the point at which revenue is actually recognised, and for undelivered cars verify that 75% deposits are treated as deferred income in the financial statements. |

|  |  |
|--|--|
| There is a risk revenue may be understated if the final 25% payment is only recognised when cash is received, rather than when the car is delivered and signed for. Revenue should be recognised when performance obligation is satisfied.   | For a sample of cars delivered and signed for, review invoices and receipts to verify that the final 25% payment was recognised as revenue after the car was delivered and signed for and not when cash was received.                                  |
| The finance manager will value inventory at order value. There is a risk inventory may be overstated. Inventory should be valued at the lower of cost and net realisable value (NRV).  | For cars awaiting despatch, discuss with the finance manager the basis of using order value. Verify that the order value is approximately equal to the lower of cost and NRV. Any significant differences should be discussed with management.         |
| The three year warranty on the cars gives rise to a provision. There is a risk liabilities and expenses may be understated and profit overstated by 20% to meet profit related targets. A provision should be made if it is highly probable that there will be future outflow to settle the obligation and the cost can be estimated reliably. | Discuss with the finance manager the basis of the 80% provided for and the assumptions used to assess the reasonableness of the provision. Compare the 80% provided for this year with the percentage provided for last year to assess reasonableness. |
| The old factory is undergoing extensive Refurbishment. There is a risk revenue expenditure may be understated to overstate assets and profit in order to meet profit related targets. Only capital expenditure should be capitalised.  | Obtain a breakdown of the related costs and review them to verify that only capital expenditure has been capitalised and all revenue expenditure has been expensed.  |
| Bank loan. There is a risk the loan may not be classified correctly between current and non-current liabilities, or may not be properly presented or disclosed in the F/Statements as required by IFRSs.   | Re-calculation the amounts of current and non-current liabilities to verify accuracy and review the financial statements to verify that the loan is presented and disclosed as required by IFRSs.  |
| Loan covenants'. There is a risk the company may fail to comply with the loan covenants, resulting in the loan being recalled. This may affect the going concern of the entity.  | Review the loan covenants to assess any possibilities of breaching them and maintain professional scepticism when auditing areas that may be manipulated. E.g. revenue, expenses and profit  |
| 10% finance cost. There is a risk finance cost may be understated to increase profit and meet profit related targets such as loan covenants and bonus.   | Re-calculate the finance cost using the interest rate in the loan agreement and compare this amount with the one reported in the financial statements to verify accuracy.  |
| The managing director's bonus scheme was introduced during the year which is based on achieving a target profit before tax. There is a risk profit before tax may be overstated to meet bonus target.  | Maintain professional scepticism when auditing areas that may be manipulated to overstate profit. E.g. revenue may be overstated and expenses understated.   |
| Damaged inventory. There is a risk damaged inventory may be overstated if it is recorded at a scrap value of K40, 000, 000, if it does not have any residual value. Inventory should be valued at the lower of cost and net realisable value (NRV).  | Enquire from management the assumptions used when calculating the scrap value of K40, 000,000. Inspect the condition of the damaged inventory to assess whether the K40, 000,000 scrap value is reasonable.  |



|   |  |
|---|--|
| <p>Contingent asset. There is a risk assets may be overstated if the contingent asset is recognised. Contingent asset can only be recognised when it is virtually certain that future economic benefits will flow to the entity and the amount can be reliably measured or estimated.</p> | <p>Enquire from management the basis of recognising the contingent asset (insurance claim) and enquire from the company's lawyers to verify whether it is virtually certain the insurance company will pay/settle the claim.</p> |
|---|--|

*(c) Importance of audit working papers to Mango & Co*

- (i) Provides evidence of auditor's (Mango & Co) basis for conclusion.
- (ii) Provides evidence that Mango & Co planned and performed the audit in accordance with ISAs.
- (iii) Will assist Mango & Co engagement team to plan and perform audit.
- (iv) Will assist Mango & Co in the direction, supervision and review of audit work.
- (v) Will enable Mango & Co audit team to be accountable.
- (vi) Will enable Mango & Co to retain a record of matters of continuing significance.
- (vii) Will enable Mango & Co conduct quality control reviews and inspections.

*(d) Lowballing and whether it is allowed*

*Lowballing*

Means charging the audit fee that is lower than the market price normally to win the audit tender. The problem is that it is likely to create self-interest threat to the auditor's objectivity/independence.

*Is it allowed?*

It is allowed provided the auditors have put in place appropriate safeguards to ensure the audit quality is not compromised.

## SOLUTION TWO

### (a) ZamCell internal controls

| Deficiency and implication  | Control recommended   | Test of control   |
|---|---|---|
| Cash receipts are banked every two weeks by the chief cashier. There is a risk cash may be misused or stolen. This might put pressure on the entity's cash flow.  | Cash receipts should be banked promptly and properly accounted for. E.g. cash should be banked on a daily basis.  | For a sample of cash receipts, inspect the related bank statements to verify the dates the cash receipts were deposited.  |
| Currently inventory levels are checked after the orders are placed and accepted. There is a risk of accepting customer orders when there are no mobile phones in inventory. The entity might lose revenue and customer goodwill   | Inventory should be checked before accepting any mobile phone order and only process the order if adequate mobile phones are in inventory/ in stock.  | For a sample of mobile phones orders placed and accepted verify whether the mobile phones were all delivered as agreed with the customer.   |
| There is no record of customer signatures to acknowledge that the customer has received the mobile phone. There is a risk some customers may refuse that they received their mobile phones.   | All local agents should maintain a record of customers signatures as proof of delivery and that payment will not be for any despatches without customers' signatures.   | For a sample of mobile phones despatched by local agents verify proof of delivery by inspect the record of customers signatures to verify that customers signed for mobile phones received.   |
| There have been customers complaints that it takes approximately three weeks between sales orders and receipt of mobile phones. There is a risk customers may switch to competitors, which may affect revenue and customers' complaints may damage the entity's reputation. | Appoint a responsible official who should ensure that mobile phones orders are processed promptly and mobile phones are despatched to customers timely.   | For a sample of sales orders, compare the dates on the sales orders to the dates on the goods despatch notes to verify whether mobile phones are delivered timely and discuss with the responsible official any significant delays. |
| Credit limits are approved by sales ledger clerks. The clerks lack skills and experience, therefore, there is a risk they may set credit limits too high, leading to irrecoverable debts and the entity may loss revenue.   | Credit limits should not be set by sales ledger clerks. Senior officials in the sales ledger department should be involved. E.g. the manager may set the credit limits and the director may authorise and review the credit limits. | For a sample of customers with credit limits, review their credit limits correspondence/records to verify whether credit limits were set by the manager and authorised by the director (senior officials).                          |

|   |  |   |
|---|--|---|
| <p>Sales discounts are approved by assistant sales representatives. Assistants lack skills and experience, therefore, there is a risk they may set the discount too high, leading to a loss of revenue.</p>   | <p>Assistant sales representatives should not be approving the sales discounts. Senior officials should be involved. E.g. sales manager may approve the sales discounts and the sales director may authorise and review the sales discounts.</p> | <p>For a sample of customers with sales discounts, review their sales discounts correspondence/records to verify whether sales discounts were approved by the sales manager and authorised by the sales director (senior officials).</p>    |
| <p>Trade payables and supplier statement reconciliations are performed quarterly. There is a risk errors and frauds may not be detected until after three months. Further suppliers may be underpaid and this may damage the entity's reputation.</p>                                       | <p>Trade payables and supplier statement reconciliations should be performed on a monthly basis for all suppliers by the payables accountant and these should be reviewed by a senior responsible official like a finance manager.</p>           | <p>For a sample of trade payables, enquire from management to verify whether the reconciliations were done on a monthly basis by the payables accountant and were reviewed by a senior responsible official likely the finance manager.</p> |
| <p>Any changes to supplier details in the purchase ledger master file are done by purchase ledger clerk and approved by senior purchase ledger clerk. There is a risk key supplier data can be accidentally amended or fictitious suppliers included. This increases the risk of fraud.</p> | <p>Only senior responsible officials like purchase ledger manager should have the authority to make changes to master file data. This should be controlled via passwords.</p>  | <p>Request a purchase ledger clerk to attempt to access the master file and to make an amendment; or use wrong password to access the system, the system should not allow these.</p>  |
| <p>Purchase requisitions for all new plant and equipment have been authorised by production supervisor. There is a risk production supervisor may lack skills and experience needed and wrong new plant and equipments may be acquired, leading to loss of funds and production.</p>        | <p>Huge capital expenditure should be authorised by the board of directors and purchase requisitions should be approved by senior responsible official like production director and authorised by the chief executive officer.</p>               | <p>For a sample of authorized purchase requisitions, review them to verify whether they were approved by the production director and authorised by the chief executive officer.</p>   |

*(b) Managing conflicts of interest*

- (i) Kalulu & Co should inform both ZamCell and its competitor that they would be acting as auditors for each company and, if necessary, obtain their consent.
- (ii) Use confidentiality agreements signed by employees and partners of the firm.

- (iii) Use separate engagement teams, with different engagement partners and team members (Chinese wall).
- (iv) Use separate offices and keep audit files/records separately for separate audit teams.
- (v) Give audit team members clear confidentiality and data security guidelines.
- (vi) Regular reviews by an independent review partner that appropriate safeguards are in place.
- (vii) Advising one or both clients to seek additional independent advice.
- (viii) If it is no possible to audit both, Kalulu & Co should choose their preferred client.

(c) Threats to auditor's objectivity and independence and example

| Threat        | Example  |
|---------------|--|
| Self-interest | Audit firm having shares in the audit client.  |
| Self-review   | Audit firm preparing financial statements for the audit client and then audits them.             |
| Familiarity   | Audit partner having long association with the audit client.                                     |
| Intimidation  | Outstanding audit fees or audit client threatening to sue the audit firm for previous work done. |
| Advocacy      | Audit firm representing the audit client at the meeting with the bank to raise finance.          |

### **SOLUTION THREE**

(a)

Events occurring between the date of the financial statements and the date of the auditor's report

- (i) The auditors have an active duty to perform audit procedures to identify events all the way up to when the auditor's report is signed.
- (ii) Enquire from management whether any subsequent events have occurred.
- (iii) Review or read board minutes in order to identify events. E.g. whether any assets been destroyed.
- (iv) Obtain management written representation regarding the subsequent event.
- (v) Reviewing most recent financial information to assess its impact on the financial statements.

Facts discovered after the date of the auditor's report but before the financial statements are issued

- (i) The auditors have no active duty to perform procedures (or make enquiries) during this period.
- (ii) However, if the auditors discover an event that require the financial statements to be amended:
  - Enquire from management how they intend to address the event in the financial statements.
- (iii) If the financial statements are amended:
  - Perform additional audit procedures on the amended financial statements.
  - Issue a new auditor's report on the amended financial statements.
- (iv) If financial statements are not amended and auditor's report is issued, prevent reliance on the report.

(b)

Audit procedures relevant to the audit of accounting estimates

- (i) Enquire from management assumptions used make estimates to assess their reasonableness.
- (ii) Review management's judgements for indications of management bias.
- (iii) Recalculate the estimate to verify accuracy or valuation.
- (iv) Compare the estimate with auditor's expectations and the last year's estimate and investigate variances.
- (i) Review or read disclosure notes to verify adequacy of disclosures or compliance with applicable IFRSs/IASs.
- (v) Review written management representations to assess whether management believes assumptions used are reasonable.
- (vi) Evaluate or assess whether the accounting estimates are either reasonable or misstated.
- (vii) For accounting estimates with significant risks, evaluate the adequacy of disclosures of their estimation uncertainty.

(a) Sufficient audit evidence

It means adequate or enough (quantity) audit evidence. It is influenced or affected by risk assessment, materiality of the item, source and reliability etc

Appropriate audit evidence

It means reliable and relevant (quality) audit evidence. Reliability is influenced by the source and nature of the information. Relevance may be affected by the direction of testing. Reliability is influenced by the source and nature of the information

Source of evidence regarding the bank loan

- (i) Board minutes for approval of the loan to be taken out.
- (ii) The loan agreement, confirming terms and conditions of the loan.
- (iii) Bank statement and cash book confirming receipt of the loan amount of K120, 000, 000.
- (iv) Bank confirmation letter confirming the bank loan at the year end.
- (v) Written management representation regarding the bank loan.
- (vi) A draft of financial statements showing presentation and classification of the bank loan.
- (vii) The note to the financial statements showing adequacy of loan disclosure.

(b) Test data is used to test the effectiveness of internal controls. It is performed by entering invalid data such as a wrong password or cord to access the computer system for example.

Audit software consists of computer programs or software used by the auditors to perform substantive procedures. They can be generalised audit software or custom audit software.

For positive confirmation request, the customer (confirming party) responds directly to the auditor indicating whether the customer agrees or disagrees with the stated balance.

For negative confirmation request, the customer (confirming party) responds directly to the auditor only if the customer disagrees with the stated balance.

## SOLUTION FOUR

(a)

(1) *Kumba Co*

- (i) The conclusion by the audit senior that unmodified opinion should be given is wrong.
- (ii) Unmodified opinion is given when financial statements are free from material misstatements. It is not the case here.
- (iii) Modification will be required due to material misstatement.
- (iv) The matter is material but not pervasive.
- (v) The appropriate opinion should be modified 'except for' opinion.
- (vi) The accounting treatment for the change in accounting policy is wrong, therefore, there will be disagreement on the accounting treatment.
- (vii) Change in accounting policy should be accounted for retrospectively.

(2) *Wanda Co*

- (i) The conclusion by the audit senior that modified 'except for' opinion should be given is wrong.
- (ii) Modified 'except for' opinion is given when there is a material misstatement and the matter is material but not pervasive. It is not case here.
- (iii) The emphasis of matter paragraph has been wrongly used.
- (iv) It is included in the audit report when unmodified report is given.
- (v) When there is inconsistency between the chairman's report and financial statements, other mater paragraph is used.
- (vi) The inconsistency between chairman's report and financial statements does not require modification of an audit opinion.
- (vii) The appropriate opinion should be unmodified opinion.

(3) *Manga Co*

- (i) The conclusion by the audit senior that disclaimer of opinion should be given is wrong.
- (ii) Disclaimer of opinion is given when the auditor is unable to obtain sufficient appropriate audit evidence. It is not the case here.
- (iii) Modification will be required due to material misstatement.
- (iv) The matter is material and pervasive.
- (v) The appropriate opinion should be adverse opinion.
- (vi) The accounting treatment for restructuring cost is wrong, therefore, there will be disagreement on the accounting treatment.
- (vii) The provision should be made because the closure was approved and were employees communicated to before the year end.

(b) *Mwana Co*

- (i) Financial statements assertions relevant to classes of transactions and events
  - (1) Completeness  
All transactions and events that should have been recorded have been recorded.
  - (2) Occurrence

Transactions and events that have been recorded have actually occurred and pertain to the entity.

- (3) Cut-off  
Transactions and events have been recorded in the correct accounting period.
- (4) Classification  
Transactions and events have been recorded in the proper or correct accounts.
- (5) Accuracy  
The amounts relating to recorded transactions and events have been recorded appropriately or correctly.
- (6) Presentation and disclosure  
Transactions and events should be appropriately aggregated or disaggregated and clearly described. Disclosures should be relevant and undestorable.

(ii) Substantive procedures – newly acquired property (land and buildings)

- (1) Obtain a breakdown of new land and buildings, cast the list and compare with land and buildings in assets register to verify completeness.
- (2) For a sample of new land and buildings inspect legal documents such as title deeds, land registration certificate to verify ownership.
- (3) For a sample of new land and buildings agree cost to supplier invoice to confirm valuation.
- (4) For a sample of new land and buildings physically inspect the new land and buildings to verify existence.
- (5) Inspect the purchase invoices of the new land and buildings to verify rights and obligations.
- (6) Review or read board minutes to ensure that significant capital expenditure purchases have been authorised by the board.
- (7) Review the schedule of costs to confirm that only capital expenditure has been capitalised and all revenue expenditure has been expensed.

## **SOLUTION FIVE**

(a) Advantages and disadvantages of outsourcing internal audit department.

Advantages



- Skills and experience: KJL Partners Chartered Accountants is likely to have a large pool of staff available to provide the internal audit service to 5G Technology. Internal audit staff can be used from a broader source, for example auditors with skills in computer based audits.
  - Staffing Levels: As the current internal audit department is small, then outsourcing can provide the number of staff needed straight away.
  - Cost savings: Outsourcing can be an efficient means to control the costs of internal audit as any associated costs as such training will be eliminated as KJL will train its own employees.
  - Flexibility: If the internal audit department is outsourced, 5G Technology will have total flexibility in its internal audit service. Staff can be requested from KJL to suit the company's requirements. This will ensure that, when required, extra staff is readily available for as long or short a period as needed without incurring excessive costs of maintaining an in-house expertise.
  - New Techniques: Outsourcing could provide access to new markets for 5G Technology without the need for significant levels of investment or in-house development. For example, outsourcing may include the use of audit methodology software that an in-house team would have to buy or develop.
  - Independence: Contracting out could increase independence, since staff from KJL will need to comply with robust ethical guidelines and more likely to be rotated to avoid close working relationships building up.
- Disadvantage
- Existing internal audit department: 5G Technology has an existing internal audit department; if they cannot be redeployed elsewhere in the company, then they may need to be made redundant and this could be costly for 5G Technology.
  - Conflict of interest: Conflict of interest may arise if the outsourced internal audit is being provided by KJL as external auditors.
  - Increased costs: There is the increased cost of an outsourced service, with less time spent on internal audit.
  - Lack of Knowledge: There is the risk of lack of knowledge or awareness of the organizational objectives, culture or business. This may mean that each visit the staff members are different and hence they not fully understand the systems of 5G Technologies.
  - Loss of in-house skills: If the current internal audit team is not deployed elsewhere in the company, valuable internal audit knowledge and experience may be lost.
  - Lack of permanent presences: The external audit team may not be able to provide the same flexibility or ready staff availability, particularly where problems arise, since they do not have a permanent presence.
  - Confidentiality: Knowledge of company systems and confidential data will be available to the external auditors. Although the engagement letter would provide confidentiality clauses, this may not stop breached of confidentiality.



DIPLOMA IN ACCOUNTING PROGRAMME EXAMINATIONS

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**LEVEL TWO**

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DA 12: GOVERNANCE AND COMPANY LAW

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FRIDAY 13 DECEMBER 2019

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

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**INSTRUCTIONS TO CANDIDATES**

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

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

## SECTION A – TWO COMPULSORY QUESTIONS

**Attempt both questions**

### **QUESTION ONE**

Platinum Gold Plc is a company which mines platinum and gold in North-Western Province of the Republic of Zambia. The company is jointly owned by the Community of Mufumbwe and Foreign Investors. The Community of Mufumbwe own 49% ordinary shares, whilst the Foreign Investors own 51% ordinary shares in Platinum Gold Plc.

The price of platinum and gold on the international market has been very good in the past two years and the government has started thinking of ways in which it can take over the company so that benefits from the platinum and gold sold by the company can be shared across the country. An opportunity for the takeover has just arisen - *'the waste from the mines has accidentally been disposed off into the nearby dam causing severe disease to both the local people and the animals'*. The Government Spokesperson announced on national television that, "We shall not wait to follow any procedure, we are taking over Platinum Gold Plc. Our duty is to protect our citizens from the dangers emanating from foreign controlled companies like what this company has done to our people. We are getting the 51% ordinary shares owned by the Foreign Investors in Platinum Gold Plc". Immediately the announcement was made, the police sealed off the mine stopping any foreign shareholder, management or workers from entering the premises of Platinum Gold Plc. Production has stalled and the company is currently incurring losses due to high fixed costs.

The Foreign Investors, in their individual capacity, have sued the Government on behalf of the company claiming compensation for losses incurred by the company during its closure.

The company is considering members' voluntary winding up before the Government takes over the company. An extraordinary general meeting was held at which it was resolved by a special resolution that Platinum Gold Plc be wound up.

#### **Required:**

- (a) Identify five(5) stakeholders in the scenario above. (5 marks)
- (b) Assess the views expressed by the Government Spokesperson using the Organisation for Economic Co-operation and Development (OECD) guidance. (6 marks)
- (c) Explain whether the Foreign Investors are justified in suing the Government in their individual capacity on behalf of the company. (3 marks)
- (d) i. Explain what is meant by special resolution. (3 marks)  
ii. Explain the consequences of winding up Platinum Gold Plc. (8 marks)

**[Total: 25 Marks]**

## **QUESTION TWO**

- (a) Give the characteristics of the following types of shares:
- (i) Ordinary shares (5 marks)
  - (ii) Redeemable shares (5 marks)
  - (iii) Preference shares (5 marks)
- (b) Explain how directors are appointed. (6 marks)
- (c) Explain the difference between executive and non-executive directors. (4 marks)

**[Total: 25 Marks]**

## **SECTION B**

**There are THREE (3) questions in this section. Attempt any two (2) questions.**

### **QUESTION THREE**

- (a) Discuss the duties of the promoter. (8 marks)
- (b) Explain the main issues considered in the Cadbury report. (5 marks)
- (c) Explain six (6) reasons of having the roles on Chairman and Chief Executive Officer (CEO) held by two different people. (12 marks)

**[Total: 25 Marks]**

### **QUESTION FOUR**

Munguimba Petroleum Ltd supplies petroleum products. One of its aims is to ensure that the company is run based on the following Corporate Governance concepts:

1. Honesty/Probity
2. Integrity
3. Independence
4. Fairness
5. Responsibility
6. Accountability
7. Transparency.

In its quest to expand, the company is of the view that appropriate Directors' remuneration systems should be developed and implemented.

#### **Required:**

- (a) Explain the concepts of Corporate Governance you listed above. (14 marks)
- (b) i. Discuss the importance of appropriate Directors' remuneration system. (5 marks)  
ii. Explain three (3) problems associated with Directors' remuneration. (6 marks)

**[Total: 25 Marks]**

### **QUESTION FIVE**

Malaika is a newly appointed Director of Kapper limited. She read the articles of association which prescribed what she ought to do as a Director. She then remembered that as an agent of the company, she was to maintain total diligence, integrity and professionalism. She also recalls that as an agent, she was under certain duties that arose as a result of fiduciary duties but she cannot recall which ones.

#### **Required:**

- (a) Discuss what is meant by agency problem. (5 marks)
- (b) Explain any four (4) duties that Malaika has in relation to being a Director. (8 marks)
- (c) Explain the principles which restrict alteration of articles of association, even when it is possible to hold a meeting and pass a special resolution. (12 marks)

**[Total: 25 Marks]**

**END OF PAPER**

## DA12 SOLUTIONS

### SOLUTION ONE

(a) **Stakeholders** in the scenario include:

- Owners/shareholders of the mine (Community of Mufumbwe and Foreign Investors)
- Workers
- Management
- Government
- Customers who buy the company's products

(b) The Organization for Economic Co-operation and Development (OECD) has stated that its interest in corporate governance arises from its concern for global investment. Corporate governance arrangements should be credible and should be understood across national borders.

One of the OECD principles provides guidance on the equitable treatment of shareholders. It states that all shareholders should be treated equally, including minority shareholders and overseas shareholders.

The Government Spokesperson's views are not in line with the OECD guidelines. This could negatively affect foreign direct investments which the country needs.

(c) The company is a separate legal entity from the shareholders, *Salomon v. Salomon*, thus only the company has capacity to sue for wrongs done to it. Shareholders can only sue to enforce their individual rights, not those of the company.

The **foreign investors** were wrong in suing in their individual capacities on behalf of the company.

(d) (i) A **special resolution** is a decision (resolution) of a meeting done by at least 75% or  $\frac{3}{4}$  of the members present at the meeting or proxies and voting in favour of the motion. It requires not less than 21 days notice, specifying the intention to propose the resolution as special resolution. Usually matter requiring special resolution would be provided for in the company's articles.

(ii) **Consequences of winding up Platinum Gold Plc:**

- The liquidator is appointed who will have a task of managing the company until totally wound up
- Any transfer or disposition of the company's assets during liquidation without approval of the court or any laid down procedure is void
- The assets of the company will be distributed to pay off debts
- The powers of the directors are terminated and they are dismissed.
- The company is wound up

## SOLUTION TWO

(a)

- i. **Ordinary shares**—Ordinary shares carry most risk. The capital of a company may comprise shares of one class only, known as ordinary shares, and the holder of each share is entitled to a proportionate part of profits and capital. He possesses the same voting rights as are applicable to every other share. If such shares are converted into stock of one class only, dividends are distributed in relation to the nominal value of stock held by each stock holder. Similarly, voting powers, if any, and capital rights are proportionate to the nominal value of stock held. However, many companies issue shares of two or more classes, each class having different rights as to capital, dividends, and usually voting powers also. Ordinary shares receive a fluctuating dividend, which depends upon the distribution profits left after the preference dividend has been paid.

**(ii.) Redeemable shares** -A company with a share capital may if authorized by its articles, issue shares that are redeemable S 59 (1) CA 388. But it may not:

- have an issues share capital made up entirely of redeemable shares; or
- convert shares into redeemable share if they have not been issued as redeemable (but it may purchase irredeemable shares); and it may not
- Redeem redeemable shares which are not fully paid: s 59 (3) CA 388.

**(iii.) Preference shares**- the essential characteristic of any preference share is that it can carry a prior right to receive an annual fixed dividend, say a six percent dividend.

The right is merely to receive a dividend at the specified rate before any other dividend may be paid or declared.

The rights to receive a preference dividend are deemed to be cumulative unless the contrary is stated. If, therefore, a 6% dividend is not paid in year 1, the priority entitlement is normally carried forward to year 2, increasing the priority right for that year to 12% and so on. Holders of preference shares have no entitlement to participate in any additional dividend over and above their specified rate. The preference shares are to carry a right to return of capital and they are not to carry a right to vote or only in specified circumstances such as failure to pay the preference dividend, variation of their rights or a



resolution to wind up. When preference shares carry a priority right to return of capital. The holders of the preference shares are not entitled to share in surplus assets when the ordinary share capital has been repaid.

(b) Appointment of first Directors

The application for registration delivered to the Registrar to form a company includes particulars of the first directors, with their consents. On the formation of the company those persons become the first directors. Once a company has been formed further directors can be appointed, either to replace existing directors or as additional directors. Appointment of further directors is carried out as the articles provide. Most company articles allow for the appointment of Directors:

- By ordinary resolution of the shareholders, and
- By a decision of the directors. However the articles do not have to follow these provisions and may impose different methods on the company.

When the appointment of directors is proposed at a general meeting of a public company a separate resolution should be proposed for the election of each director.

(c) An executive director is a director who performs a specific role in a company under a service contract which requires a regular, possibly daily, involvement in management. A non-executive director does not have a function to perform in a company's management but is involved in its governance. In listed companies, corporate governance codes state that boards of directors are more likely to be fully effective if they comprise both executive directors and strong, independent non-executive directors.

### **SOLUTION THREE**

(a) A promoter is a very pivotal person in the process of incorporation of a company.

Before a company is formed someone would have conceived the idea alone or in association with others. These are the promoters although the term promoter is one of commerce and not law. The following are the duties:

- to give the company its name
- to state the kind of business the company will engage in
- State if the company will be public or private
- Decide if the company will be limited by shares or guarantee etc.

After deciding on these issues the promoter(s) will take steps to actualize his/their intention.

(b) The Cadbury report

The Cadbury report was set up because of the lack of confidence perceived in financial reporting and in the ability of auditors to provide the assurances required by the users of financial statement.

The main difficulties were considered to be in the relationship between auditors and board of directors.

In particular, the commercial pressures on both directors and auditors caused pressure to be brought to bear on auditors by the board and the auditors often capitulated. Problems were also perceived in the ability of the board of directors to control their organizations.

(c) Reasons of having the roles of Chairman and Chief Executive Officer (CEO) held by two different people:

- (i) It reflects the reality that both jobs are demanding roles and ultimately the idea that one person would be able to do both jobs well. The CEO can run the company. The Chairman can run the Board and take lead in liaising stakeholders.
- (ii) There is an important difference between the authority of the Chairman and the CEO, which having the roles taken by different people will clarify. The Chairman carries the authority of the Board whereas the CEO has the

authority that is delegated by the Board. Separating the roles emphasizes that the Chairman is acting on behalf of the Board, whereas the CEO has the authority given in terms of his terms of appointment. Having the same person in both roles means that unfettered power is concentrated into one pair of hands; the board may be ineffective in controlling the CEO if it is led by the CEO.

- (iii) The separation of roles avoids the risk of conflicts of interest.
- (iv) The Board cannot make the CEO truly accountable for management if it is led by the CEO.
- (v) Separation of the roles means that is more able to express its concerns effectively by providing a point of reporting (the Chairman) for non-executive Directors.
- (vi) The Chairman is responsible for obtaining the information that other Directors require to exercise proper oversight and monitor the organization effectively. If the Chairman is also the CEO, Directors may not be sure that the information they are getting is sufficient and objective enough to support their work. The Chairman should ensure that the Board is receiving sufficient information to make informed decisions, and should put pressure on the CEO if the Chairman believes the CEO is not providing adequate information.

## **SOLUTION FOUR**

### (a) Concepts of Corporate Governance

(i) *Honesty/Probity* – This principle of corporate governance entails that management of a company must be honest and tell the truth at all times. They should avoid misleading the shareholders or other stakeholders and should not receive bribes. They must work to the best interest of a company.

(ii) *Integrity* – This means management must be straightforward in their dealings, and should have high moral standard who will not be corrupted at any point.

(iii) *Independence* – The management of the company must work independently, without bias or external influence from shareholders or other external forces. They must be able to make their own decisions based on their judgments.

(iv) *Fairness* – Management must act fairly. This is meant to protect the interest of all stakeholders especially members of the community, minority shareholders, etc. Management will have to protect their rights.

(v) *Responsibility* – Good management must be able to accept the credit or blame for government decisions. Avoid blaming others and be ready to be corrected or accept the blame for their mistakes.

(vi) *Accountability* – must provide true, unbiased financial information to stakeholders e.g shareholders, government, community, etc.

(vii) *Transparency* – Management must provide open and clear disclosure of relevant information to shareholders and other stakeholders. The information must be given to the right people, not anyone.

#### (i) Importance of appropriate Director's remuneration system.

Packages will need to attract, retain and motivate directors of sufficient quality, while at the same time taking into account shareholders' interests as well.

However, assessing executive remuneration in an imperfect market for executive skills may prove problematic. The remuneration committee needs to be mindful

of implications of all aspects of the package, also the individual contributions made by each director.

The remuneration committee must also have regard for the balance between the different elements of the package, the balance between basic rewards and incentive. A well-balanced package should aim to reduce agency costs by ensuring that directors' (agents) interest are aligned with shareholders' (principals). This means the package should reward directors who meet targets that further the interests of shareholders, for example by including a bonus based on achievement of targets that further the interests of shareholders, for example by including a bonus based on achievement of targets that are consistent with enhanced shareholder value. The remuneration committee should also be able to review what the director is doing to achieve the targets set, and be able to penalize the director if it has evidence that the director is taking excessive risks to achieve the targets

(b)(ii) Problems associated with Directors remuneration.

1. Remuneration levels that are excessive per se, and are not justified by the contribution directors have made.
2. Directors being rewarded for failure, for example receiving bonuses when their companies have performed poorly and receiving significant compensation payments when they lose office.
3. Remuneration arrangements providing incentives for directors to allow risk-taking beyond levels that would be deemed acceptable by many shareholders.

## SOLUTION FIVE

### (a) Agency Problem

The agency problem derives from the principals (owners) not being able to run the business themselves and therefore having to rely on agents (directors) to do so for them. The separation of ownership from management can cause issues if there is a breach of trust by directors by intentional action, omission, neglect or incompetence. This breach may arise, because the directors are pursuing their own interests rather than the shareholders or because they have different attitudes to risk-taking from that of the shareholders.

For example, if managers hold none or very little of the equity shares of the company they work for, what is to stop them from working inefficiently, concentrating too much on achieving short-term profits and hence maximizing their own bonuses, not bothering to look for profitable new investment opportunities, or giving themselves high salaries and perks?

One power that shareholders possess is the right to remove the directors from office. But shareholders have to take the initiative to do this, and in many companies, the shareholders lack the energy and organization to take such a step. Ultimately they can vote in favour of a takeover or removal of individual directors or entire boards, but this may be undesirable for other reasons.

### (b) Duties of Directors.

- i. **Performance:** as a director of the company, Malaika as an agent has the duty of contractual obligation to perform his agreed task.
- ii. **Skill:** an agent must undertake to maintain the standard of skill and care to be expected of a person in his profession. This standard is defendant on the skill advertised.
- iii. **Obedience:** the agent must act strictly in accordance with her principal's instructions provided these are reasonable and lawful. It is vital to note that the agent is not bound to follow unlawful instructions.
- iv. **Conflict of interest:** An agent must not allow the possibility of personal interest to conflict with the interests of his or her principal without disclosing that possibility to the principal. Upon full disclosure, it is up to

the principal to decide whether or not to proceed with the particular transaction. If there is a breach of this duty, the principal may set aside the contract so affected and claim any profit which might have been made by the agent.

- v. **Confidence:** With this position in the company, Malaika will come to know a lot of information and as an agent she must keep in confidence this kind of information. This must be so even when the director has ceased to be such.

**(c) The principles used to restrict alteration of articles of association.**

1. The alteration is void if it conflicts with the Companies Act or with general law.
2. In various circumstances, such as to protect a minority, the court may order that an alteration be made or, alternatively that an existing article shall not be altered.
3. An existing member may not be compelled by alteration of the articles to subscribe for additional shares or to accept increased liability for the shares which they hold unless they have given their consent.
4. An alteration of the articles which varies the rights attached to a class of shares may only be made if the correct rights variation procedure has been followed to obtain the consent of the class (Section 62).
5. A person whose contract is contained in the articles cannot obtain an injunction to prevent the articles being altered, but they may be entitled to damages for breach of contract. *Southern Foundries 1926 Ltd v Shirlaw 1940*. Alteration cannot take away rights already acquired by performing the contract.
6. An alteration may be void if the majority who approve it are not acting *bona fide* in what they deem to be the interests of the company as a whole.