# CERTIFIED ACCOUNTING TECHNICIAN
# STAGE 1 EXAMINATIONS
# S1.2: PRINCIPLES OF COSTING
# DATE: 28 NOVEMBER 2022
# MARKING GUIDE AND MODEL ANSWER

## MARKING GUIDE

| QN | ANSWER | Marks | QN | ANSWER | Marks |
|---|---|---|---|---|---|
| 1 | B | 2 | 26 | C | 2 |
| 2 | C | 2 | 27 | A | 2 |
| 3 | C | 2 | 28 | C | 2 |
| 4 | C | 2 | 29 | C | 2 |
| 5 | C | 2 | 30 | C | 2 |
| 6 | B | 2 | 31 | A | 2 |
| 7 | C | 2 | 32 | C | 2 |
| 8 | B | 2 | 33 | C | 2 |
| 9 | B | 2 | 34 | B | 2 |
| 10 | A | 2 | 35 | D | 2 |
| 11 | C | 2 | 36 | C | 2 |
| 12 | C | 2 | 37 | C | 2 |
| 13 | C | 2 | 38 | C | 2 |
| 14 | B | 2 | 39 | B | 2 |
| 15 | B | 2 | 40 | C | 2 |
| 16 | C | 2 | 41 | C | 2 |
| 17 | A | 2 | 42 | B | 2 |
| 18 | B | 2 | 43 | C | 2 |
| 19 | D | 2 | 44 | C | 2 |
| 20 | B | 2 | 45 | D | 2 |
| 21 | B | 2 | 46 | B | 2 |
| 22 | B | 2 | 47 | B | 2 |
| 23 | C | 2 | 48 | C | 2 |
| 24 | A | 2 | 49 | B | 2 |
| 25 | B | 2 | 50 | A | 2 |

**Model Answers**

**QUESTION ONE**

**Option B is correct**, Cash transactions occur when a payment is made or received immediately. A cash transaction is not limited to payments or receipts made in notes, and coins, they are also made by cheques, debit cards, or automated payments. What is important is the timing of the payment or receipt.

Other options are not correct as indicated below:

**Credit transactions** are transactions in which goods and/or service are given/received now while the payment was agreed to be made or received at future date.

**Capital transactions** relate to the purchase/sale of items that are to be used in the business for a considerable period of time rather than being purchased for immediate use or resale.

**Hence the correct answer should be (B)** as the payment was made by cheque immediately at the time of the purchase. If fridges were purchased for use in the business rather than resale, the transaction would have been treated as a both a cash and a capital transaction and **gave rise to correct answer as (D)**.

The transaction is not a **credit transaction** as the payment was affected immediately at the time the purchase transaction took place. This would have been treated as **credit transaction** if the payment was made at the later date compared to the time the purchase took place.

**QUESTION TWO**

**Option C is correct,** Management accounting information is needed for a variety of purposes. Among the purposes of management accounting information, the key purpose includes decision planning, controlling and decision making. Controlling enables management to control costs within an organization.

All the proposed options excluding (C) are objectives of management accounting. However, the main objective is to facilitate the management to control the costs within the business organization.

(C) is not correct as the management accounting information is provided by management accounting to internal stakeholders rather than external. The provision of information to shareholders for decision making is concerned with the financial accounting. Hence option C is not correct.

**QUESTION THREE**

**Option C is correct**, Preparation of financial statements to guide decision making is one of the objectives of financial accounting rather than cost accounting.

Other options relate to objective of management/cost accounting and could not be correct answers for question asked.

**QUESTION FOUR**

**Option C is correct,** Management accounts are prepared for internal stakeholders while financial accounts are prepared for external stakeholders.

This statement is **correct** as the one of key elements that distinguish management accounting from financial accounting is that the financial accounting has an external focus involving in reporting accounting and other information to those outside the business such as investors, lenders and other regulatory authority. While financial accounting has external focus, Management accounting has an internal focus involving in reporting accounting and other information to those inside the business such as managers.

The other suggested options are not correct as follows:

**Option (A)** would be correct if the negative element **"not"** was excluded from the statement.

**Option (B)** is not correct as it was reversed in the sense that where there should be management accounting was indicated as financial accounting and vice versa.

**Option (D)** would be correct if the negative element **"not"** was excluded from the first statement (**A**).

**QUESTION FIVE**

**Option C is correct, Management accounting** takes information on past transactions and use it to provide people inside the business with regular and focused financial information in order to run it efficiently today and into the future.

Option **(A)** would be the correct answer for bookkeeping.

Option **(B)** would be the correct answer for financial accounting

Further, option **(D)** is not correct as the first statement which is not correct about management accounting was combined with third option (C) which is correct about management accounting.

**QUESTION SIX**

**Option B is correct**, Prime cost is the total of Direct material, Direct labor, and Direct expenses

Note that indirect materials + Indirect wages + Indirect expenses =Overheads. Hence, if **overheads** were requested, the option **(C)** would be the correct answer.

**Option (A)** is not correct as it includes indirect expenses rather than direct expenses.

**QUESTION SEVEN**

**Option C is correct**, Prime cost = Direct material + Direct labor + Direct expenses

The prime cost is obtained by adding together the direct material cost incurred for material used/consumed to make the product, direct labor cost and the direct expenses (Manufacturing overheads). Hence the prime cost for the product K is computed as follows:

| | **"FRW"** |
|---|---|
| Cost of direct material consumed: | 900,000 |

| | |
|---|---|
| Add: Direct labor cost | 600,000 |
| Add: Direct expenses | 200,000 |
| **Total direct costs (Prime cost)** | **1,700,000** |

**Hint:** The cost of material consumed was used in computation instead of that of purchased materials as all material were not consumed to produce the 500 unit of the product.

Hence option **(C)** is the correct answer.

The candidate will get the correct answer to be the option (**A)** would if the candidate mistakenly used the direct material purchased instead of used in computation of the prime cost: FRW 1,000,000 + FRW 600,000 + FRW 200,000= **FRW 1,800,000**

**The option (B)** would be the correct answer if the total production cost was requested. (Production cost= Prime cost + Manufacturing overheads): FRW 900,000 + FRW 600,000 + FRW 200,000 + FRW 300,000 =**FRW 2,000,000**

The option (D) would be appropriate answer if the total production cost for a product was requested and the candidate mistakenly used the direct material purchased instead of used in computation in computation of the total production cost: FRW 1,000,000 + FRW 600,000 + FRW 200,000 + FRW 300,000= **FRW 2,100,000.**

**QUESTION EIGHT**

**Option B is correct**. The factory overhead is calculated as indirect material + indirect labor + indirect expenses.

**Option (A)** would be the correct answer if the Prime cost was requested as the Prime cost is found as direct material + Direct labor + direct expenses

**Option (C) and (D)** are not the correct answer as some component of both the prime cost and the factory overheads were mixed and could not give factory overheads in a mixed way.

**QUESTION NINE**

**B.** Apportionment of cost of maintaining factory buildings to respective departments are as follows:

| | | **"FRW"** |
|---|---|---|
| Cutting and assembling | 8,000,000*12/14 | 6,857,142.86 |
| Polishing and painting | 8,000,000*2/14 | 1,142,857.14 |

The option (A) is not correct because the floor space was misallocated to departments whereby the floor space for cutting and assembling was allocated to polishing and painting and vice versa (FRW 8,000,000*200/1,400 and FRW 8,000,000 *12,000/14,000= FRW **1,142,857.14** and **FRW 6,857,142.86**.

The candidate will get the option (C) to be the correct answer if machine hours was used to apportion the cost to departments instead of floor space (FRW 8,000,000*200/250 and FRW 8,000,000 *50/250 = FRW **6,400,000** and **FRW 1,600,000**.

Option C is not correct as during the allocation total cost was used which include indirect labor cost of FRW 4 million yet maintenance cost was only to be apportioned using square meters.

Option D, the allocation was done equally by taking maintenance cost and divide number of departments i.e 2, yet the apportionment basis was square meters of factory floor

**QUESTION 10**

**Option A is correct,** Apportionment of indirect cost to respective department is done as follows:

| | | **"FRW"** |
|---|---|---|
| Assembly department | 4,000,000*200/250 | 3, 200,000 |
| Testing department | 4,000,000*50/250 | 800,000 |

Option B considered direct cost of FRW 2,000,000 during the allocation of overheads yet direct cost aren't part of overheads

Option C, the overheads were misallocated, the assembly cost was miss allocated to testing and vice-versa

Option D, the indirect cost of FRW 4 million was divided equally to two department without considering apportionment basis

**QUESTION 11**

**Option C is correct,** A classification of cost involves classifying the cost by element into materials, labor and expenses/overheads then each can be classified further by nature into direct or indirect. At the of classification, costs will be classified as **Direct and indirect materials**, **Direct and indirect labor**, then **Direct and indirect expenses/overheads**. Hence option (C) is the correct answer for the question asked.

**Option (A)** would be correct answer if it was requested to classify cost by element

**Option (B)** could not be the correct answer as it mixed some of costs when classification by element and those when classification was made by function.

Further, **option (D)** distribution cost was not incurred and this classification doesn't give correct way to understand costing purpose.

**QUESTION 12**

**Option C is correct.** A cost is classified as variable if the activity changes and the total cost in exactly the same way. Hence **Category 1** is classified as variable cost as it is made of food and ingredients to be used to cook food. If the volume of food to be cooked change, the volume and their related cost changes in the same way. They are treated as raw materials.

Other categories are made of fixed costs. Their total cost stays the same even though the level of activity changes. However, they can vary in the long run at the time the business expands.

Hence other options are not the correct answer as they are made of fixed cost **(D)** or combine fixed and variable cost **(A, B)**.

**QUESTION 13**

**Option C is correct.** The budgeted variable cost per unit was **FRW 1.20** as per workings below:

Total actual output of **162,500** units produced at FRW **300,000**

Budgeted fixed cost which remained constant at the end of production**: FRW 87,000.**

Excess of actual spending over the budgeted**: FRW 18,000**

**Hence, the budgeted variable cost is calculated as follow**

| | **FRW** |
|---|---|
| Total actual cost | 300,000 |
| Less actual fixed costs | (87,000) |
| **Total actual variable costs (Balancing figure)** | **213,000** |
| **Less overspending of total cost compared to the budget** | **(18,000)** |
| **Total budgeted variable costs** | **195,000** |
| Actual output | 162,500 |
| Budgeted variable cost per unit FRW 195,000/162,500 | 1.2 |

If the candidate chooses **option A** to be the correct answer, it implies that overspending of actual variable cost of **FRW 18,000** compared to the budget was not considered. Hence, he considered actual variable costs as budgeted variable costs

If the candidate chooses **option B** to be the correct answer, it implies that the overspending was overspending of actual variable cost of FRW **18,000** compared to the budget was wrongly treated as an underspending.

If the candidate choose **option D** to be the correct answer, it implies that the fixed cost were omitted from computation of the total budgeted variable costs. i.e (FRW 300,000 – FRW 18,000)/162,500 = 1.74

**QUESTION 14**

**Option B is correct.** The variable cost per unit was **FRW 15,500.**

The variable cost per unit can be found using a **High-Low method** used to estimate variable and fixed part of semi-variable cost.

Therefore, the variable cost per unit can be estimated as

$$\frac{Cost\ at\ high\ level\ of\ activity - Cost\ at\ low\ level\ of\ activity}{Total\ unit\ at\ high\ level\ of\ activity - tota\ unit\ at\ low\ level\ of\ activity}$$

Hence the variable cost per consultation is estimated as

$$\frac{FRW289{,}125{,}000 - FRW\ 269{,}750{,}000}{5{,}750 - 4{,}500} = FRW\ 15{,}500$$

If the candidate chooses (**A**), it implies that only both overheads and number of units at **high** level of activity were considered to derive the variable cost per unit: FRW 289,125,000/5,750 units= **FRW 50,283 per unit.**

If the candidate chooses (**C**), it implies that only both overheads and number of units at **low** level of activity were considered to derive the variable cost per unit: FRW 269,750,000/4,500 units= **FRW 59,944 per unit.**

If the candidate chooses option (**D**), it implies that the variable cost per unit was wrongly computed by taking the average [(Cost at low level of activity + Cost at high level of activity)/ (Number of units at low level + Number of units at high level)] = [(FRW 269,750,000+ FRW 289,125,000)/ (4,500units+ 5,750units)] =FRW 558,875,000/ 10,250 units = **FRW 54,524/unit.**

**QUESTION 15**

**Option B is correct.** The cost per one cartridge will be **FRW 5,016.67** as per workings below:

| **Details** | **Amount in FRW 000** | **FRW 000** |
|---|---|---|
| Variable cost | 2,500 *12(output) | 30,000 |
| Rent cost | 2,000*12 (Months) | 24,000 |
| Depreciation | 5,000 | 5,000 |
| Supervision cost | 100*12 (month) | 1,200 |
| **Total production cost** | | **60,200** |
| **Unity produced** | | **12,000** |
| **Total cost /cartridge** | **60,200/12** | **5,016.67** |

If the candidate choose **option (A)** as the correct answer, implies that direct expenses were omitted from calculation. Hence the total unit cost will be derived as [(FRW 1,000+1,400) *12,000 +FRW 24,000,000 + FRW 5,000,000 + FRW 1,200,000]/ 12,000units = FRW 59,000,000/ 12,000 units = **FRW 4,916.67/ unit**

The candidate will choose **option (C)** if depreciation cost was ignored from computation of the unit cost. Hence the total unit cost will be derived as [FRW 30,000,000 + (FRW 2,000,000*12) + FRW 1,200,000]/ 12,000 units = **FRW 4,600 /unit.**

**Option D compute total cost per unit after adjusting units by 20% projected next year:**

**i.e** = $\frac{Frw\ 60{,}200{,}000}{12{,}000*1.2} = FRW\ 4{,}180.55$

**QUESTION 16**

**Option C is correct**. The cost per one cartridge will be **FRW 4,680.5** as per workings below:

| **Details** | | **FRW 000** |
|---|---|---|
| Variable | 2,500 *14.4(output) | 36,000 |
| Fixed rent | 2,000*12 (Months) | 24,000 |
| Depreciation | 5,000 | 5,000 |
| Supervision cost | 100*12 month * 2 supervisors | 2,400 |
| Total production cost | | **67,400** |
| **Total cost /cartridge** | **67,400/14.4** | **4,680.5** |

If the candidate choose **option (B)** as the correct answer, implies that direct expenses were omitted from calculation. Hence the total unit cost will be derived as [(FRW 1,000+1,400) *14,400 + FRW 24,000,000 + FRW 5,000,000 + FRW 1,440,000]/ 14,400units = FRW 65,960,000/ 14,400 units = **FRW 4,513.88/ unit**

If the candidate choose **option (A)** as the correct answer, implies that the candidate did not consider the cost of second supervisor yet the activity level reached the level needed to hire the second supervisor. Hence the total unit cost will be derived as FRW 36,000,000 +FRW 29,000,000 + FRW 1,200,000]/ 14,400units = FRW 66,200,000/ 14,400 units = **FRW 4,597.22/ unit**

The candidate will choose option (D) if depreciation cost was ignored from computation of the unit cost. Hence the total unit cost will be derived as (FRW 36,000,000 + FRW 24,000,000 + FRW 1,440,000)/14,400 units = **FRW 4,266.66 /unit**

**QUESTION 17**

**Option A is correct,** some areas of the business incur the costs, but also earn income. As income minus cost result in profit, these areas are known as profit centres. Managers in these centres are responsible of both costs incurred and revenues earned which ends in profit. Hence a profit centre manager has the responsibility of generating and maximizing profits.

If the candidate chooses **option (B)**, this wants to describe an investment centre whereby responsible manager is responsible of calculating how much to be invested in respective areas or project and assessing whether these projects will generate an adequate return on investment.

If the candidate chooses **option (C)**, this will describe a cost centre. A cost centre is a centre which incurs costs only. As this centre incurs costs only, the centre manager is responsible for managing costs such that they can be minimized but without compromising the quality of output.

**QUESTION 18**

**Option B is correct**, Profit centres are areas of the business that incur the costs, but also earn income.

Hence, firms that manufacture and sell their products to market has various retail shops where products are sold and costs of products and revenue generated from them as well as profits ascertained. These retail shops are called profit centres. Hence **option (B)** is the correct answer.

If the candidate chooses from other options, he/she want to describe cost centres.

**QUESTION 19**

**Option D is correct**, there is no correct answer in the suggested options.

If candidate choose **option (B),** he/she is describing revenue centre

If the candidate chooses **option (C)**, he/she is describing an investment centre

**Option (A)** will be the correct answer if the negative "**not**'' is removed from the statement and end by only.

**Note:** Candidate should read carefully the proposed options to be able to identify which option/s is/are correct as per the requirement.

**QUESTION 20**

**Option B is correct**. The room servicing cost per occupied room-night was **FRW 25,000.**

For our scenario, the room servicing cost was apportioned to different rooms on the basis of occupancy rate.

The number of rooms occupied = 40*80%= 32 room-nights

The room servicing cost per occupied room-night last period is calculated as FRW 800,000/32= **FRW 25,000/room-night**

If the candidate chooses option **(A),** he/she mistakenly omitted to consider the percentage of room occupied and consider that all rooms were occupied. Hence the servicing cost for occupied room calculated as FRW 800,000/40 rooms= **FRW 20,000/room-night**

The candidate who chose **option (C)** had wrongly computed the number of occupied rooms as total rooms servicing costs multiply with percentage of occupancy

For option D, FRW 80,000 represent total cost not occupancy cost per room

**QUESTION 21**

**Option B is correct**, under coding system, various methods of coding data exist such as alphabetic, numeric, and alpha-numeric coding system and each business will have its own coding structure that can best suit its transactions and operations. However, though a purely alphabetic coding systems may also be used, it tends to be rather confusing to use as it uses only letters to code various data. This might be difficult to classify data. Hence **option (B)** is the correct answer for the question.

If the candidate chooses **option (A)**, numeric coding systems are common methods of coding date and easy to use not confusing.

Option C, Numeric and alpha-numeric coding systems are the most common in practice and in assessments. The negation i.e not made it incorrect option

**QUESTION 22**

**Option B is correct.** A good coding system will possess both of the following features**:**

- Each item should have a unique code
- Codes re uniform in structure and length

If the candidate chooses option (A), he/she is trying to indicate type of coding system not features for each good coding system.

**Option (C)** will be the correct answer if the negative statement "**not**" was not included in the option.

**QUESTION 23**

**Option C is correct,** In a manufacturing business, there are three type of inventories such as inventory of raw materials, inventory of works –in- progress and inventory of finished goods. For our case an inventory of raw materials is made of A, B, and C as it is made of various materials /ingredients used to be used while making cookies which are fresh and yet to be processed. Hence **option (C)** is the correct answer to the question.

If the candidate chooses **option (D),** he /she is referring to the inventory of finished goods as production was completed and they are ready for delivery.

The candidate who chooses **option (B)** is describing both the inventory of both works in progress and finished goods altogether. This is because produced cookies awaiting the quality check are considered to be works in progress as they are not yet ready for delivery to be qualified as finished goods.

The **option (A)** could not be correct as it mixed inventory of raw materials with the one of finished goods.

**QUESTION 24**

**Option A is correct**, Raw material inventories are kept by manufacturers so that materials are available for transfer to production lines when they are needed.

The candidate will choose the **option (B)** when it was asked the type of inventory of finished goods. This can be found in both manufacturing and trading industries. Only inventory of finished goods is found in trading business such that they can be sold without further modification.

**Option (C) and (D**) could not be the correct answer as though store ledger accounts held by the accounts department are not very similar to inventory cards, there are two important differences between the store ledger accounts and the inventory cards indicated below:

- Cost details are recorded in the store ledger account so that the unit cost and the total cost of each issue and receipt is shown. The balance after inventory movement is also valued. The value is recorded as these accounts form part of cost accounting system.
- Store's ledger accounts are written up and kept in the costing part of the accounts department or in the store's office separate from the stores by a clerk experienced in cost bookkeeping

**QUESTION 25**

**The following workings relates to question 25 and 26**:

| Date | Details | Quantity | Cost per unit in FRW | Value in FRW |
|---|---|---|---|---|
| 01 May 2021 | Opening balance | 1,000 | 900 | 900,000 |
| 10-May-21 | Receipts | 2,000 | 850 | 1,700,000 |
| | **Balance as at 10 may 2021** | **3,000** | | **2,600,000** |
| 15-May-21 | Issues | 1,000 | 900 | 900,000 |
| | | 500 | 850 | 425,000 |
| | **Balance as at 15 may 2021** | **1,500** | **850** | **1,275,000** |
| 25-May-21 | Receipts | 1,000 | 870 | 870,000 |
| | **Balance as at 15 may 2021** | 2,500 | | **2,145,000** |
| 28-May-21 | Issues | 1,500 | 850 | 1,275,000 |
| | | 200 | 870 | 174,000 |
| | **Closing balance** | **800** | **870** | **696,000** |
| | **Cost of stock issued** | **3,200** | | **2,774,000** |

**Model Answer for Question 25**

**Option B is correct**, the value of closing stock under FIFO will be **FRW 696,000**

The **option (A: FRW 720,000)** will be the correct answer if it was requested to estimate the value of closing stock using LIFO. Refer to working shown under Question 27

If the student chooses the option C, he/she suggest that average method was used as shown below

| | FRW | Unity price | FRW |
|---|---|---|---|
| Opening | 1,000 | 900 | 900,000 |
| Purchase | 2,000 | 850 | 1,700,000 |
| **Total** | **3,000** | | **2,600,000** |
| Issue | (1,500) | 867 (Average) | (1,300,500) |

| | | | |
|---|---|---|---|
| Balance | 1,500 | | 1,299,500 |
| Purchase | 1,000 | 870 | 870,000 |
| Balance | 2,500 | 867.8 average | 2,169,500 |
| Issue | (1,700) | 867.8 | (1,475,260) |
| **Closing stock** | **800** | **867.8** | **694,240** |

Option D is the opening stock as at 01 May 2021 not closing stock

**QUESTION 26**

**Option C is correct,** the value of stock issued is estimated at **FRW 2,774,000** when FIFO was used.

If the candidate chooses (A: **FRW 2,750,000**), he/she estimated the value of stock issued using LIFO instead of FIFO as requested. Refer to working under answer 28

If the student chooses the option (B: **FRW 2,477,000**), he/she reversed numbers while interpreting the final result after computation.

Option D is the value of cost of good issued using average method: i.e 1,300,500 + 1,475,260 = 2,775,760

**QUESTION 27**

**Option A is correct,** the value of closing stock estimated using LIFO is **FRW 720,000**.

As shown below

| | **Qty** | **Unit price** | **Closing stock** |
|---|---|---|---|
| | | **FRW** | **FRW** |
| Opening stock | 1,000 | 900 | 900,000 |
| Purchase | 2,000 | 850 | 1,700,000 |
| **Total** | **3,000** | | **2,600,000** |
| Issue | (1,500) | 850 | (1,275,000) |
| Balance after issue | 1,500 | | 1,325,000 |
| Purchase | 1,000 | 870 | 870,000 |
| Balance | 2,500 | | 2,195,000 |
| Issue on 28 May 2021 | (1,000) | 870 | (870,000) |
| | (500) | 850 | (425,000) |
| | (200) | 900 | (180,000) |
| **Balance as at 28 May 2021/Closing stock** | **800** | | **720,000** |

If the candidate choose **option** (**B: FRW 696,000**), he/she estimated the value of closing stock using FIFO instead of LIFO as requested.

If the candidate choose option **(C: FRW 2,195,000)**, he/she forgotten to include the second issue of FRW 1,700kg equivalent to FRW 1,475,000.

Hence closing stock will be **FRW 2,195,000** which is the closing stock as at 15 May 2021 as issue of stock subsequent to this date was omitted in computation of closing stock. Or 720,000+FRW 1,475,000= **FRW 2,195,000.**

For option D, FRW 694,240 represent closing stock when average method was used

**QUESTION 28**

**Option C is correct**. The cost of issues is estimated to **FRW 2,750,000** if LIFO was used.

Option A represent cost of issues under FIFO method

If the option (**B: FRW 696,000**) is chosen, it implies that the candidate computed the value of closing stock using FIFO instead of computing the value of issues using LIFO.

**Workings are indicated in the table below:**

| | **QTY** | **Unity Price** | **Value** |
|---|---|---|---|
| Issue on 15 May 2021 | 1,500 | 850 | 1,275,000 |
| Issue on 28 May 2021 | 1,000 | 870 | 870,000 |
| | 500 | 850 | 425,000 |
| | 200 | 900 | 180,000 |
| | | | 2,750,000 |

**Option D, represent cost of goods purchased not issued i.e 2,000*850 + 1,000*870 = 2,570,000**

**QUESTION 29**

**Option C is correct.** The value of closing stock as at 15 May 2021 is estimated at **FRW 1,299,995** using the AVCO.

**Workings**

| **Date** | **Details** | **Quantity** | **Cost per unit in FRW** | **Value in FRW** | **Average price per unit in FRW** |
|---|---|---|---|---|---|
| 01 May 2021 | Opening balance | 1,000 | 900 | 900,000 | 900 |
| 10-May-21 | Receipts | 2,000 | 850 | 1,700,000 | |
| | **Balance as at 10 may 2021** | **3,000** | | **2,600,000** | 866.67 |

| Date | Details | Quantity | Cost per unit in FRW | Value in FRW | Average price per unit in FRW |
|---|---|---|---|---|---|
| 15-May-21 | Issues | 1,500 | **866.67** | 1,300,005 | |
| | **Balance as at 15 may 2021** | 1,500 | | **1,299,995** | **866.67** |

The average price per unit under AVCO is calculated as:

$$\frac{\text{Total value of existing inventory} + \text{Total value of unit added to inventory}}{\text{Total number of units of existing inventory} + \text{Total number of units added to inventory}}$$

Hence the unit price used while computing the value of issues as at 15 may 2021 was computed as follows:

$$\frac{\text{FRW } 900{,}000 + \text{FRW } 1{,}700{,}000}{1{,}000 \text{ Kgs} + 2000 \text{ Kgs}} = \textbf{FRW 866.67 /Kg}$$

Hence the closing stock will be found by subtracting stock as at 10 May 2021 issues of 15 may 2021 as: FRW 2,600,000 – FRW 1,300,005=**FRW 1,299,995.**

If candidate choose option (A: **FRW 1,275,000**), the FIFO was used to estimate the value of closing stock instead of AVCO as required. Hence closing stock was FRW 850*1,500= **FRW 1,275,000.**

If candidate choose option (B: **FRW 1,325,000**), the LIFO was used to estimate the value of closing stock instead of AVCO as required. Hence closing stock was FRW 900*1,000 +FRW 850*500= **FRW 1,325,000.**

**QUESTION 30**

**Option C is correct.** Umubaji had to pay to the carpenter Murava in week 2 of the month of May 2020 an amount of **FRW 81,600** as per workings below:

| | | |
|---|---|---|
| Basic hours at time -rate: | **FRW** 1,500 *40 | 60,000 |
| Overtime hours at overtime –rate: | FRW 12 *1,800 | 21,600 |
| **Gross wage for the week 2** | | **81,600** |

The candidate who chooses option **(A: FRW 60,000)** did not consider overtime hours worked by Murava. Hence the pay was computed as FRW 1,500*40= **FRW 60,000**

The candidate who chooses option **(B: FRW 78,000)** did not consider overtime rate and remunerated Murava based on normal rate. Hence the pay was computed as FRW 1,500*52= **FRW 78,000.**

For candidate who chooses option D, the candidate considered total hours worked at an overtime rate i.e 52*1,800 = 93,600

**QUESTION 31**

Correct answer is A, as shown here: hired carpenters was 10, Murava was among and worked overtime and instructions was not to consider him. Then pay to the remaining 9 carpenters for one week is: 9*40*1,500 = 540,000

For students who chooses option B, they got it wrong as this represents total pay including the one for Murava at normal rate i.e overtime pay rate for Murava not considered 10*40*FRW 1,500 = 600,000

For students who chooses option C, they got it wrong as this represents total pay for 10 carpenters including the one for Murava i.e (40*9*1,500) + 81,600 = 621,600

Option D, is wrong as the rate used to compute pay was overtime rate for 9 carpenters i.e 40*9*FRW1,800 = FRW 648,000

**QUESTION 32**

**Option C is correct.** Mubumbyi was to be paid FRW 205,200 while Murava was to be paid **FRW 292,800** as per workings below:

As Mubumbyi did not reach the minimum production, the rate per brick will be reduced to **FRW 108/brick** (120*90%). Hence the total wage to be paid to Mubumbyi was to be computed as 1,900 *108= **205,200**

As Murava produced above the required level, the payment was to be computed as

| | |
|---|---|
| For the first 2,000 bricks produced, 2000*120 | 240,000 |
| For bricks produced after 2000 bricks, 400*(120*110%) | 52,800 |
| **Total to be paid** | **292,800** |

The candidate who chooses option (A) ignored the close for producing above and below the minimum level. Hence pay was 1,900* FRW 120 = FRW 228,000 for Mubumbyi and 2,400*FRW 120 =FRW 288,000 for Murava.

The candidate who chooses option (B) wrongly paid Mubumbyi at an overtime rate yet he did not produce above expected minimum quantity. Hence Mubumbyi was paid as 1,900* (FRW 120*110%) = 1,900*FRW 132= **FRW 250,800.**

**QUESTION 33**

**Option C is correct.** Mubumbyi will be paid an amount of **FRW 240,000** if the production of 2,000 bricks was achieved as per workings below:

Mubumbyi will be paid at the normal rate due to that the production was at the required minimum production. Hence the payment will be **240,000** (FRW 120*2,000).

If option (A) is chosen, the candidate considered that Mubumbyi was paid at an overpay rate including 10% yet the production did not exceed required production. i.e 2,000*FRW120*110% = FRW 264,000

If **option (B: FRW 216,000)** is chosen, the candidate considered that Mubumbyi was penalized for not achieving the minimum production yet it was achieved at 2,000 cements bricks. Hence the pay was to be 2,000*FRW 108 = **FRW 216,000.**

**QUESTION 34**

**Option B is correct**. Overheads refers to all indirect costs incurred during the production of a given product within a manufacturing firm

The candidate who chose the option (A) was describing prime cost.

The candidate who chose the option (C) was describing production cost.

The candidate who chose the option (D) was describing part of component of prime cost and not overheads.

**QUESTION 35**

**Option (D) is correct due to the following:**

**Option (D)** is correct as the total variable cost varies directly with the level of activity. This means that each unit produced causes the same amount of cost to be incurred. So, the cost per unit remains constant however many units are produced. The change in total cost will depend on the number of units produced.

**Option C)** is correct as the total fixed cost remains constant over a given level of activity. This means that each extra unit produced do not cause extra cost to be incurred. In summary, these are cost which are not affected by the level of output and they are incurred in relation to the period rather than the level of activity.

The option (B) would be the correct answer if the word "**could not be changed at all**" was not included in the statement. This is because the total fixed cost remains constant over given level of activity and may change if the business decided to expand beyond a certain level of activity. Hence become step fixed cost. Hence **option (B)** is not the correct answer for the question.

**QUESTION 36**

**Option C is correct**. The graph describes a **variable cost per unit**. As per cost behavior, the cost per unit remains constant regardless unity produced. The change in total cost will depend on the number of units produced.

**Option (D)** total costs could not be constant as it varies based on level of production.

**Option (A)** would be the correct answer if the graph has an upward-sloping straight line which passes through the origin (0, 0).

**Option (B)** would be the correct answer if the graph has an upward- sloping like the total variable cost graph, but starts part of the way up the Y-axis at the level of the total fixed cost element.

**QUESTION 37**

**Option C is correct.** The direct material cost variance is FRW 420,000 adverse.

A material cost variance is found by: Budgeted material cost-Actual material cost. Hence the

Hence a material cost variance is calculated as (10,000* 3*FRW 100) - FRW 3,420,000) = FRW 3,000,000 – FRW 3,420,000 = FRW 420,000. Hence an adverse variance as the actual cost of materials incurred exceeded the budgeted material cost.

If option **B, FRW 2,420,000 Adverse)** was chosen, it implies that the candidate failed to multiply by the number of Kgs required to produce 1 unit (i.3Kg). Hence the variance computed as 10,000* FRW 100 -3,420,000 = **FRW 2,420,000 Adverse**.

If **option A: FRW 420,000 favorable),** this implies that the candidate wrongly treated budgeted costs to be the actual and vice versa. Hence material cost variance become FRW 3,420,000 – FRW 3,000,000 = **FRW 420,000 Favorable.**

**QUESTION 38**

**Option C is correct.** Cost variance= Budgeted cost-actual cost incurred.

If the actual cost incurred is less than the budgeted cost, the variance is favorable. If the actual cost incurred exceed the budget, the variance is adverse. Hence for our case, we have an adverse variance implying that the budget is less than actual spending. Hence Actual cost of material is found by **Budgeted cost + Adverse variance**= FRW 7,000,000+ FRW 500,000 = **FRW 7,500,000**.

Hence **option (C: FRW 7,500,000)** is the correct answer.

If option (**A: FRW 6,500,000)** is chosen, the candidate wrongly considered the variance to be a favorable. If it is favorable variance, it implies that the budget was greater than actual. Hence the actual spending be calculated as **Budgeted cost –favourable variance.** Therefore, the actual spending would be calculated found as FRW 7,000,000 –FRW 500,000= FRW 6,500,000.

If the candidates choose option **B, FRW 5,000,000,** he/she wrongly picked the figure for sales variance. Hence FRW 7,000,000- FRW 2,000,000 = **FRW 5,000,000.**

**QUESTION 39**

**Option B is correct.** The budgeted advertising cost was **FRW 520,000**

Cost variance= Budgeted cost-actual cost incurred. **Hence Budgeted cost = Actual cost +/- Variance**

If the variance is favorable, it implies that the actual costs incurred were less than budgeted cost. Hence Budgeted cost =Actual cost + favorable variance

If the variance is adverse, it implies that the actual cost incurred were higher than budgeted costs. Hence, Budgeted cost =Actual Cost - Adverse variance

For our case, we have an adverse variance. Hence, the budgeted expenditure is equal to FRW 600,000 - FRW 80,000 = **FRW 520,000. Hence option (B) is the correct answer.**

**Option A: FRW 680,000 would be the correct answer,** if the variance was considered to be favorable. Hence budgeted cost be calculated as FRW 600,000 + FRW 80,000 = FRW 680,000.

If **option C: FRW 1,100,000)** is chosen, the candidate wrongly picked the figure for material variance. Hence, FRW 600,000 - FRW 500,000= **FRW 100,000**.

**QUESTION 40**

**Option C is correct.** Budgeted sales is **FRW 16,000,000.**

**Variance = Budgeted result-actual results**

Interpretation for revenue variance is a bit different from the one for cost variance.

If the variance is favorable, it implies that the actual revenue earned were higher than those budgeted. Hence Budgeted revenue =Actual cost-favorable variance

If the variance is adverse, it implies that the actual revenue earned are lower than those budgeted. Hence, Budgeted cost =Actual revenue earned + Adverse variance.

For our case, we have favorable variance implying that actual revenue earned were higher than budget sales. Hence budgeted sales =Actual sales made – Favorable variance = FRW 18,000,000- FRW 2,000,000 = **FRW 16,000,000.**

**If option B: FRW 20,000,000** may be chosen if the variance was adverse. Hence budgeted sales can be found as FRW 18,000,000 + FRW 2,000,000= **FRW 20,000,000.**

If **option (A: FRW 17,500,000),** it implies that the candidate wrongly picked the figure for material variance and computed the budgeted sales as FRW 18,000,000 – FRW 500,000 = **FRW 17,500,000.**

**QUESTION 41**

**Option C is correct,** the significance of the variance is 11.11% Adverse as per workings below:

Variance significance (% variance) = (Budgeted Results-Actual results)/Budgeted results *100

= (FRW 4,500,000- FRW 5,000,000) *100 = 11.11% Adverse.

If the **option A: 11.11% favorable** is chosen, the candidate had wrongly considered **FRW 5,000,000** to be the budgeted cost and **FRW 4,500,000** to be the actual cost incurred on the denominator. The significance of the variance will be the same as the above, but favorable.

If the **option (B: 10% Adverse)** is chosen, it implies that the candidate had wrongly divided by the actual cost instead of the budget. Hence the variance significance become FRW = (FRW 4,500,000- FRW 5,000,000) *100=**10% Adverse.**

**Option D,** divided budgeted cost to the actual costs i.e 4,500,000/5,000,000 = 9%

**QUESTION 42**

**Option B is correct**. The total cost variance will be **FRW 150,000 Adverse** computed as follows

| | | |
|---|---|---|
| Total direct material budget (1,000*20*60) | = | 1,200,000 |
| Total direct labor budget (500*20*60) | = | 600,000 |
| Production overheads budget | | 500,000 |
| **Total production cost** | | **2,300,000** |
| Compared to actual cost of | | 2,450,000 |
| **Variance (Adverse)** | | **150,000** |

**Option (A)** will be the correct answer if the actual cost was FRW 2,300,000 while the total budgeted cost was FRW 2,450,000.

If the option **(C: FRW 1,860,000 A)** is chosen, the candidate had forgotten to multiply by the unit cost per bottle by the number of bottles in the box. Hence the variance become: (FRW 1,000*60+ FRW 500*60 + FRW 500,000) - FRW 2,450,000 = **FRW 1,860,000 Adverse**.

If the option **(D: FRW 1,920,000 favorable)** is chosen, the candidate had forgotten to multiply by the unit cost per box by the number of boxes produced and further wrongly interpreted variance obtained as favorable instead of adverse. Hence the variance become: (FRW 1,000*20+ FRW 500*20 + FRW 500,000) - FRW 2,450,000 = **FRW 1,920,000.**

**QUESTION 43**

**Option C is correct.** For management accounting purpose, costs can be classified by function as production, selling and distribution, Administration, and Finance. Hence Option iii made of ABC would be part of classification of cost by function.

If **option (B)** is chosen, the candidate classified costs by their nature as cost can be classified as direct and indirect cost.

**Options (A)** could not be the correct answers as they mix both classification by nature and by function.

**QUESTION 44**

**Option C is correct**. As per management accounting, costs can be classified by function, element and by nature.

**Option (A)** would be correct for management accounting

**Option (B)** will be correct for financial accounting.

**QUESTION 45**

**Option D is correct.** The significance of the variance depends on the context of organization. Managers will want to be aware of significant variances, whether they are adverse or favorable. One might think that managers are only concerned with adverse variances, but a favorable variance might be an indication of the job well done by a department manager or the fact that the budget was not fair reflection of the cost or income expected. However, normally managers of the business

only wish to be informed about significant variances by means of a variance report or significance report.

**Other options** are not the correct answers as only the word "**significance**" qualifies the answer to be correct as only significant variances are reported to management for investigation.

Hence no correct answer was included among the suggested options.

**QUESTION 46**

Correct answer is B: A goods received note (GRN) will be completed by goods inwards staff on the basis of a physical check, which involves counting the items received and seeing that they are not damaged.

**Dispatch note,** this is a message or letter sent by seller to the buyer informing the later that the goods ordered was dispatched

Purchase requisition form: A document used by internal staff requesting authorization to buy particular goods

Purchase order is issued by buyer to the seller informing type, quantity of goods to be procured

**QUESTION 47**

**Option B is correct**. Because FIFO issues purchased items at lower prices first, it ends with closing stock with items purchased at higher prices and hence high closing stock which will increases the profit for the period.

**Option (A)** is not the correct answer because during inflation (general price rising), stock items purchased latest at higher prices are sold last in case LIFO was used leaving items purchased earlier at low prices. This resulted in closing stock with items purchased at lower prices which lower the profit. If FIFO was used, items purchased earlier at low prices are issued first leaving in the closing stock items purchased latest at higher prices. This result in higher closing stock and higher profit. Noted that the higher the closing stock the higher the profit and vice versa.

**Option (C)** is not correct as when FIFO was used, it results in higher closing stock and **higher** profit instead of **lower**.

**QUESTION 48**

**Option C is correct.** The estimated price to be notified to customer for the job 500 is **FRW 2,344,600** as per workings below:

| **Production cost:** | **FRW** |
|---|---|
| Direct Materials | 1,065,000 |
| Direct Labour | 326,000 |
| Machine Cost (140*FRW 850) | 119,000 |
| **Total Production Cost** | **1,510,000** |
| Plus 60% of prime cost (FRW 1,065 + FRW 326 = FRW 1,391*60%) | 834,600 |
| Estimated price for the job | **2,344,600** |

If the **option (B: FRW 2,225,600)** was chosen, it implies that the candidate did not consider production overheads. Hence estimated job cost become FRW 1,065,000 + FRW 326,000 + FRW 1,391,000*60%= **FRW 2,225,600.**

If the **option (A: FRW 1,823,000)** was chosen, it implies that the candidate did not consider direct labor cost. Hence estimated job cost become FRW 1,065,000 + 140* FRW 850+ FRW 1,065,000 *60%= **FRW 1,823,000.**

**If option (D: FRW 2,416,000)** was chosen, the candidate applied mark up to the total production costs instead of mark up. FRW 1,065,000 + FRW 326,000 + 140* FRW 850+ 60% (FRW 1,065,000 + FRW 326,000 + 140* FRW 850) = **FRW 2,416,000**.

**QUESTION 49**

**Option B is correct.** As shown below

We need first to determine the number of units issued from the stock calculated as:

| | |
|---|---|
| Opening stock | 100 |
| Receipt 500 + 600 | 1,100 |
| **Total goods available for the month** | **1,200** |
| Issue (Balancing figure) | (400) |
| Closing stock | 800 |

After getting the number of items issued, we need to compute the value of these items using FIFO as follows:

| **Date** | **Details** | **Quantity** | **Cost per unit in FRW** | **Value in FRW** |
|---|---|---|---|---|
| 1-July-21 | Opening balance | 100 | 700 | 70,000 |
| 16-July-21 | Receipts | 500 | 800 | 400,000 |
| 29-July-21 | Receipt | 600 | 850 | 510,000 |
| 30-July- 21 | Issue | (100) | 700 | (70,000) |
| | Issue | (300) | 800 | (240,000) |
| **Total issue** | | **400** | | **310,000** |

Option A used average method to value inventory as shown below

| **Date** | **Details** | **Quantity** | **Cost per unit in FRW** | **Value in FRW** |
|---|---|---|---|---|
| 01-Jul-21 | Opening balance | 100 | 700 | 70,000 |
| 16-Jul-21 | Receipts | 500 | 800 | 400,000 |
| 29-Jul-21 | Receipt | 600 | 850 | 510,000 |
| | | 1,200 | 816.67 | 980,000 |
| **30-Jul-21** | **Issue** | **400** | **816.67** | **326,667** |

Option C, used LIFO yet FIFO was asked as shown below

| Date | Details | Quantity | Cost per unit in FRW | Value in FRW |
|---|---|---|---|---|
| 01-Jul-21 | Opening balance | 100 | 700 | 70,000 |
| 16-Jul-21 | Receipts | 500 | 800 | 400,000 |
| 29-Jul-21 | Receipt | 600 | 850 | 510,000 |
| 30-Jul-21 | Issue | 400 | 850 | 340,000 |

**QUESTION 50**

Correct answer is A: as shown below

| Date | Details | Quantity | Cost per unit in FRW | Value in FRW |
|---|---|---|---|---|
| 1-July-21 | Opening balance | 100 | 700 | 70,000 |
| 16-July-21 | Receipts | 500 | 800 | 400,000 |
| 29-July-21 | Receipt | 600 | 850 | 510,000 |
| 30-July- 21 | Issue | (100) | 700 | (70,000) |
| | Issue | (300) | 800 | (240,000) |
| **Total issue** | | **400** | | **310,000** |
| Closing stock | | 200 | 800 | 160,000 |
| | | 600 | 850 | 510,000 |
| | **Total** | **800** | | **670,000** |

Option B used average method to value inventory as shown below

| Date | Details | Quantity | Cost per unit in FRW | Value in FRW |
|---|---|---|---|---|
| 01-Jul-21 | Opening balance | 100 | 700 | 70,000 |
| 16-Jul-21 | Receipts | 500 | 800 | 400,000 |
| 29-Jul-21 | Receipt | 600 | 850 | 510,000 |
| | | 1,200 | 816.67 | 980,000 |
| 30-Jul-21 | Issue | 400 | 816.67 | 326,667 |
| 31-Jul-21 | Closing stock | 800 | | 653,333 |

Option C, used LIFO yet FIFO was asked as shown below

| Date | Details | Quantity | Cost per unit in FRW | Value in FRW |
|---|---|---|---|---|
| 01-Jul-21 | Opening balance | 100 | 700 | 70,000 |
| 16-Jul-21 | Receipts | 500 | 800 | 400,000 |
| 29-Jul-21 | Receipt | 600 | 850 | 510,000 |
| 30-Jul-21 | Issue | 400 | 850 | 340,000 |
| 31-Jul-21 | Closing stock | 800 | | 640,000 |

Option D considered closing stock and valued it at price of last goods received i.e 800*850 = 680,000

**END OF MARKING GUIDE AND MODEL ANSWERS**