
CERTIFIED ACCOUNTING TECHNICIAN (CAT)
STAGE 1 EXAMINATION
S1.2 PRINCIPLES OF COSTING
PILOT PAPER

Instructions

- 1 Time allowed: **2 hours**
- 2 This examination has **one** section only: **Section A**.
- 3 Section A has **50 compulsory** multiple choice questions equal to 2 marks each.

Section A

1. Which of the following describes capital transactions?

- A The day to day income and expenses associated with running a business
- B Transactions where payment is immediate
- C Transactions where payment is to be made at some point in the future
- D Purchase of assets for short term use in the business
- E None of the above

(2 marks)

2. Bella Umuhoza is paid on a piecework basis as follows:

Up to 100 units per week	RWF200 per unit
101 to 120 units per week	RWF230 per unit
121 units or more per week	RWF260 per unit

Only the additional units qualify for the higher rate and rejected units do not qualify for payment.

Last week Bella produced 142 units of which 10 were rejected.

What is Bella's gross pay for the week?

- A RWF27,720
- B RWF30,320
- C RWF30,360
- D RWF34,320
- E None of the above

(2 marks)

3. Receipts and issues of a raw material for a period were:

	<i>Units</i>	<i>RWF per unit</i>	<i>Cumulative total RWF</i>
Day 1 balance	170	3,700	629,000
Day 3 receipt	230	3,600	1,457,000
Day 5 issue	110		
Day 7 issue	140		

Using the LIFO inventory pricing method, what is the total cost of the issue on Day 7?

- A RWF504,000
- B RWF506,000
- C RWF510,000
- D RWF629,000

(2 marks)

4. Ishema Ltd recorded the following costs for the year:

- (i) Factory supervisor's wages – RWF500,000
- (ii) Bank interest on a business loan – RWF3,000,000
- (iii) Mileage costs for sales representatives – RWF250,000
- (iv) Purchase of stationery for the sales office – RWF100,000
- (v) Costs of processing sales staff payroll – RWF120,000

If costs are classified by function, what were the total selling and distribution costs for the year?

- A RWF470,000
- B RWF3,100,000
- C RWF3,500,000
- D RWF350,000
- E None of the above

(2 marks)

5. Claude Twizeyimana has calculated the cost and revenue variances for the month.

In which of the following areas will the above information primarily aid management?

- A Control
- B Decision making
- C Implementing
- D Planning
- E None of the above

(2 marks)

6. Inventory can be classified as raw materials, work-in-progress and finished goods.

Which of the following are raw materials?

- A Toy cars waiting to have wheels attached
- B Sheet metal rolled and cut but not yet assembled
- C Training shoes boxed and ready for sale
- D Paint used in the production of ornaments
- E None of the above

(2 marks)

7. Which of the following are characteristics of management accounts?

- (i) The information is of a monetary nature.
- (ii) They are used to provide an historical record and as a future planning tool.
- (iii) There is a legal requirement to prepare them.
- (iv) They help with decision making inside the business.

- A (i) and (ii)
- B (ii) and (iii)
- C (i) and (iii)
- D (ii) and (iv)
- E None of the above

(2 marks)

8. Which of the following defines a credit transaction?

- A A transaction which involves the receipt of an invoice
- B A transaction whereby payment is made at some future date
- C A transaction which involves a bank transfer
- D A transaction whereby payment is immediate
- E None of the above

(2 marks)

9. Pizza Tonight is a fast food restaurant and take away selling pizza and fried chicken.

Which of the following costs would be classified as direct costs?

- (i) Cheese used on the pizza

- (ii) Maintenance of cooking equipment
- (iii) Electricity for cooking, lighting and heating
- (iv) Wages of employees who fry the chicken

- A (i) and (ii)
- B (i) and (iv)
- C (ii) and (iii)
- D (iii) and (iv)
- E None of the above

(2 marks)

10. The Ishimwe Clothing partnership produces fashion items.

If costs are classed by function, which of the following would be classed as an administration cost?

- A Wages of sewing machinists
- B Insurance of the office building
- C Commission paid to sales staff
- D Purchases of thread
- E None of the above

(2 marks)

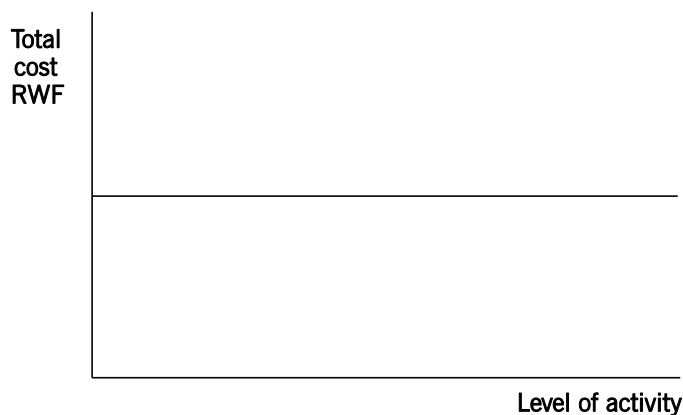
11. A production operative is paid RWF600 per hour for a basic 35-hour week. Overtime is paid at time and a half. Overtime premium is treated as an indirect cost. The operative worked for 38 hours in week 4.

What were the total direct and indirect costs relating to the operative in week 4?

	<i>Direct cost</i>	<i>Indirect cost</i>
	RWF	RWF
A	22,800	900
B	21,000	2,700
C	21,000	900
D	22,800	2,700

(2 marks)

12. Which of the following costs would be most likely to be illustrated by the diagram given below?



- A Telephone costs
- B Total piecework wages and salaries costs
- C Direct material cost per unit

- D Fixed production cost per unit
 E None of the above **(2 marks)**

13. The Umuhire Co-operative makes several products including sets of tools for mechanics named 'Toolkits'. The requirements per Toolkit unit are as follows:

Per unit

Material A	2 kg @ RWF620 per kg
Material B	3 kg @ RWF560 per kg
Labour	2 hours @ RWF500 per hour

Toolkits are sold to tool shops in packs of ten and the packaging for ten units is RWF1,400.

Administration costs are RWF200,000 per year.

Fixed production costs are RWF3,000,000 per year.

Umuhire makes 10,000 units of Toolkits a year.

What is the prime cost per Toolkit unit?

- A RWF4,060
 B RWF4,360
 C RWF4,380
 D RWF5,320 **(2 marks)**

14. Total production costs and output over three periods have been:

<i>Period</i>	<i>Production costs</i>	<i>Output</i>
<i>d</i>	RWF'000	
1	RWF168,750	13,100 units
2	RWF190,000	14,800 units
3	RWF192,750	14,300 units
4	RWF182,250	14,100 units

What are the estimated variable production costs per unit if the high–low method is applied?

- A RWF11,071
 B RWF12,500
 C RWF13,500
 D RWF20,000 **(2 marks)**

The following information relates to questions 15 and 16

The overhead expenses of Karera Ltd are coded using a five-digit coding system, an extract from which is as follows:

<i>Cost centre</i>	<i>Code no.</i>	<i>Types of expense</i>	<i>Code no.</i>
Machining	20	Indirect materials	210
Finishing	21	Depreciation of production machinery	220
Packing	22	Indirect wages	230
Stores	23	Maintenance materials	240
Maintenance	24	Machine hire costs	250

The following information relates to questions 19, 20 and 21

The Manzi Co-operative makes the following purchases and issues.

1 October	Purchases	2,000 units for RWF6m
31 October	Purchases	3,000 units for RWF9.9m
15 November	Issues	4,000 units
20 November	Purchases	1,500 units for RWF4.35m
24 December	Issues	500 units

19. At 31 December which of the following closing inventory valuations using FIFO is correct?
- A RWF4,350,000
 B RWF5,900,000
 C RWF6,000,000
 D RWF14,250,000 **(2 marks)**

20. At 31 December which of the following closing inventory valuations using AVCO is correct?
- A RWF5,800,000
 B RWF6,000,000
 C RWF6,024,000
 D RWF6,230,000 **(2 marks)**

21. Using the LIFO method of inventory valuation, what was the cost of the materials issued on 24 December?
- A RWF1,450,000
 B RWF1,650,000
 C RWF5,900,000
 D RWF12,900,000 **(2 marks)**

22. The following spreadsheet shows budgeted income and variances for last month for Ruzindana Ltd. It is company policy to provide managers with a variance report highlighting significant variances.

Any variance in excess of 7% is considered significant.

	A	B	C	D
1	Income/Expenditure	Budget RWF'000	Variance RWF'000	Adverse (A) or Favourable (F)
2	Income	36,000	3,000	F
3	Material	9,200	828	A
4	Labour	10,000	650	F
5	Overheads	8,500	1,700	A

Which variances would be considered to be significant?

- A Income and material
 B Income and overheads

- C Material and labour
 D Material and overheads
 E None of the above

(2 marks)

23. The Musoni partnership manufactures toys. The following costs occurred in June:

Managers' salaries	RWF4,000,000
Wages for production workers (fixed wage plus volume related bonus)	RWF5,000,000
Packaging for finished toys	RWF2,000,000
Insurance costs for factory	RWF1,000,000

How much should be classified as fixed, semi-variable and variable costs?

	<i>Fixed costs</i>	<i>Semi-variable costs</i>	<i>Variable costs</i>
A	RWF5,000,000	RWF5,000,000	RWF2,000,000
B	RWF5,000,000	RWF7,000,000	RWF0
C	RWF1,000,000	RWF5,000,000	RWF6,000,000
D	RWF1,000,000	RWF9,000,000	RWF2,000,000

(2 marks)

24.

Cost	Actual cost RWF'000	Variance RWF'000
Production overheads	16,336	590 A
Administration	9,756	250 F

What were the production overhead budget and administration budget for the period?

	<i>Production overheads</i> RWF'000	<i>Administration</i> RWF'000
A	16,926	10,006
B	15,746	9,506
C	16,926	9,506
D	15,746	10,006

(2 marks)

25.

Type	Statement
1	At 6,000 units the total cost is RWF60,000,000 and at 8,000 units the total cost is RWF60,000,000.
2	At 3,000 units the cost is RWF15 million and at 6,500 units the cost is RWF32.5 million.
3	At 1,300 units the cost is RWF2,650,000 and at 4,700 units the cost is RWF9,450,000.
4	At 1 to 2,500 units the total cost is RWF20,000,000, and at 2,500 to 10,000 units the total cost is RWF40,000,000. At 10,000 to 20,000 units the total cost is RWF70,000,000.

Which of the following costs is a variable cost?

- A Type 1
- B Type 2
- C Type 3
- D Type 4

(2 marks)

26.

	Payment method
1	Labour is paid RWF4,000 for 10 units, RWF8,000 for 20 units, RWF12,000 for 30 units and so on. A bonus of RWF20,000 is paid if output exceeds 35 units for four days in a row.
2	Labour is paid RWF400 per unit for 10 units, RWF500 per unit for any units over 10 and RWF600 per unit for any units over 15.
3	Labour is paid RWF600 per hour.
4	Labour is paid RWF600 per hour plus RWF700 if output exceeds 25 units.

Which payment method is time rate plus bonus?

- A Payment method 1
- B Payment method 2
- C Payment method 3
- D Payment method 4

(2 marks)

27. The Uwimana Co-operative makes wooden bookcases. The following costs occur:

Wood used to make the bookcases	RWF3m
Insurance of the factory	RWF0.25m
Wages of carpenters who assemble the shelves	RWF2.5m
Wages of employees who paint the shelves	RWF1m

How much of the costs are direct costs?

- A RWF3 million
- B RWF5.5 million
- C RWF6.5 million
- D RWF6.75 million
- E None of the above

(2 marks)

28. A partnership had an opening inventory value of RWF7,500 (300 units valued at RWF25 each) on 1 June. The following receipts and issues were recorded during June.

8 June receipts 220 units RWF40 per unit
15 June issues 250 units

The partnership currently uses the LIFO method for costing inventory but is thinking of changing to FIFO. If the company changed from LIFO to FIFO, how would the profits be affected?

- A Profits would increase by RWF3,300.
B Profits would decrease by RWF3,300.
C Profits would increase by RWF10,000.
D Profits would decrease by RWF10,000. **(2 marks)**

29. Mukandanga Ltd incurs fixed costs per year of RWF24 million. Variable costs are RWF10,000 per unit.

What is the total cost per unit if 20,000 units are produced?

- A RWF1,200
B RWF10,000
C RWF11,200
D RWF224 million **(2 marks)**

30. The following occurred at Centre AB during the year:

Sales RWF30 million
Costs RWF16 million
Capital expenditure RWF10 million

If Centre AB is treated as a profit centre, how much is the manager of the centre responsible for?

- A RWF4 million
B RWF14 million
C RWF16 million
D RWF30 million **(2 marks)**

31. Dative Murebwayire is paid a basic wage of RWF549 per hour. Overtime is paid at time and a half for all hours over 37 hours per week.

Dative's gross wage for week 2 was RWF21,960.

How many hours did Dative work in week 2?

- A 26.7 hours
B 39 hours
C 40 hours
D 41.5 hours
E None of the above **(2 marks)**

The following information relates to questions 32, 33 and 34

Robert Ruzindana has produced the following report regarding budgeted and actual costs for the month. Some of the figures are missing. Variances are considered to be significant if they are adverse and exceed 5% or if they are favourable and exceed 7%.

Cost type	Budget RWF'000	Actual RWF'000	Variance RWF'000
Revenue	190,400	?	14,280 F
Materials	32,580	31,640	?
Labour	75,920	80,476	?
Production overheads	44,340	41,680	?
Administration overheads	11,360	?	1,560 F

32. What is the material variance for the month?
- A RWF940,000 Favourable
 B RWF940,000 Adverse
 C RWF64,220,000 Favourable
 D RWF64,220,000 Adverse **(2 marks)**
-
33. Are the following statements true or false?
- 1 The labour variance is adverse.
 2 The labour variance is insignificant.
- A Both statements are true.
 B Both statements are false.
 C Statement 1 is true and statement 2 is false.
 D Statement 1 is false and statement 2 is true. **(2 marks)**
-
34. Are the following statements true or false?
- 1 The production overhead variance is significant.
 2 The actual administration overheads were RWF12,920.
- A Both statements are true.
 B Both statements are false.
 C Statement 1 is true and statement 2 is false.
 D Statement 1 is false and statement 2 is true. **(2 marks)**
-

35.

Materials used in production	RWF400m
Advertising	RWF50m
Wages of employees supervising production workforce	RWF100m
Rent of office building	RWF200m

If costs are classified by element, how much of the costs would be classed as expenses?

- A RWF50 million
- B RWF200 million
- C RWF250 million
- D RWF350 million

(2 marks)

36. Twizeyimana Central Bus Company Ltd uses lubricant LU14 for servicing its buses. Below is an extract from the inventory control policy for LU14:

'LU14 should be ordered in quantities of 5,000 litres when the inventory balance falls below 5,000 litres. At an inventory balance of over 5,000 litres, inventory can be ordered in quantities below 5,000 litres.'

Inventory record – LU14

Date	Receipts			Issues			Balance	
	Quantity litres	Cost per litre (RWF'000)	Total cost (RWF'000)	Quantity litres	Cost per litre (RWF'000)	Total cost (RWF'000)	Quantity litres	Total cost (RWF'000)
Balance 15 March							4,000	3,360
16 March	5,000	0.88	4,400				9,000	7,760
24 March				3,000	0.84	2,520	6,000	5,240
30 March	2,000	0.92	1,840				8,000	7,080
31 March				4,000	0.87	3,480	4,000	3,600

Are the following statements true or false?

- 1 The method of valuation used for issues of LU14 is LIFO.
- 2 The inventory order policy has been complied with.

- A Both statements are true.
- B Both statements are false.
- C Statement 1 is true and statement 2 is false.

D Statement 1 is false and statement 2 is true.

(2 marks)

The following information relates to questions 37 and 38

The Umwali Taxi Partnership's maintenance department incurred the following times for servicing taxis during 20X1:

	Hours
Normal time hours worked	825
Overtime hours worked (paid at time and a half)	208
Overtime hours worked (paid at double time)	87
Total hours worked	1,120

The maintenance staff's normal time hourly rate is RWF450 per hour.

Overtime premiums paid are included as part of maintenance labour cost.

37. What is the maintenance labour cost of normal time working?

- A RWF238,500
- B RWF371,250
- C RWF504,000
- D RWF589,950

(2 marks)

38. What is the maintenance labour cost premium of time and a half?

- A RWF19,575
- B RWF46,800
- C RWF93,600
- D RWF140,400

(2 marks)

39. Manzi Bus Company Ltd's maintenance department incurred the following times for servicing buses in 20X2:

	Hours
Normal time hours worked	725
Overtime hours worked (paid at time and a half)	138
Overtime hours worked (paid at double time)	67
Total hours worked	930

The maintenance staff's normal time hourly rate is RWF500 per hour.

Overtime premiums paid are included as part of maintenance labour cost.

What is the total maintenance labour cost?

- A RWF430,500
 B RWF465,000
 C RWF533,000
 D RWF567,500
- (2 marks)**

40. Management accounts are prepared for which of the following?

- A Tax authorities
 B Shareholders
 C Auditors
 D Shop floor workers
 E None of the above
- (2 marks)**

41. PCU Learning Media publishes textbooks, teaching classroom notes and literature books. The business is split into four profit centres: textbooks, classroom course notes, novels and children's books.

The business's coding system is a five-digit system, with the first two digits being the profit centre and the last three digits being the cost or income.

<i>Cost/profit centre</i>	<i>Code no.</i>	<i>Types of revenue/expense</i>	<i>Code no.</i>
Textbooks	50	Royalties	510
Course notes	60	Printing	520
Novels	70	Advertising	530
Children's books	80	Sales to bookshops	540
		Sales to schools	550

Last week the following costs were incurred:

<i>Code</i>	<i>RWF'000</i>
50530	65
60530	85
70510	50
80510	70

How much was paid for royalties paid to novel writers last week and what was the total advertising cost for PCU?

	<i>Royalties for novel writers</i>	<i>Advertising cost</i>	
	<i>RWF</i>	<i>RWF</i>	
A	50,000	150,000	
B	120,000	65,000	
C	50,000	65,000	
D	120,000	150,000	(2 marks)

42. The Mugabo Co-operative makes car radios for a production level of 14,000 units and has the following costs:

Material	11,000 kg at RWF600 per kg
Labour	8,100 hours at RWF450 per hour
Expenses	RWF48,000,000

What is the variable cost per unit and the total cost per unit?

	<i>Variable cost per unit</i>	<i>Total cost per unit</i>
	RWF	RWF
A	732	4,160
B	1,050	4,160
C	732	4,479
D	1,050	4,479

(2 marks)

43. Bazizane Ltd is a small business with three managers – a sales manager, a production manager and a finance manager.

Significant adverse variances for the month were as follows:

Revenue	RWF200,000
Materials	RWF300,000
Labour	RWF250,000
Production overheads	RWF100,000
Interest	RWF150,000

How much of the variances is the production manager responsible for?

- A RWF100,000
- B RWF550,000
- C RWF650,000
- D RWF850,000

(2 marks)

44. The Mucyo Association recorded the following actual results for the month of June:

	RWF'000
Income	78,000
Expenditure:	
Materials	19,100
Labour	11,800
Overheads	15,300

Budgeted results were:

	RWF'000
Income	75,000
Expenditure:	
Materials	18,600
Labour	12,400
Overheads	15,500

What is the total variance for June?

	RWF'00	
	0	
A	2,700	Favourable
B	3,300	Adverse
C	2,700	Adverse
D	3,300	Favourable

(2 marks)

45. The Umuhoza Co-operative is a manufacturing organisation with 34 employees who are paid a basic hourly rate of RWF550 for a standard 37-hour week with any overtime hours paid at a rate of time and a half. In a typical week the employees all work 6 hours of overtime and produce a total 2,000 units of the organisation's product.

What is the total unit labour cost for the product?

- A RWF374
 - B RWF402
 - C RWF430
 - D RWF860,200
- (2 marks)**

46. Which of the following is a cost centre?

- A The total depreciation expense of a business
 - B The direct labour cost of a product
 - C An entire business organisation
 - D One of the supermarkets owned by a supermarket chain
 - E None of the above
- (2 marks)**

47. The IG Co-operative, a cake manufacturer, recorded the following values at the month end:

1	Flour	RWF50,000
2	Cakes awaiting icing	RWF170,000
3	Cakes ready for sale	RWF300,000
4	Sugar	RWF100,000

What was the work-in-progress valued at?

- A RWF150,000
 - B RWF170,000
 - C RWF300,000
 - D RWF620,000
- (2 marks)**

48. Are the following statements true or false?

- 1 A budget is a financial plan for an organisation.
- 2 If actual revenue is less than budgeted revenue then the result is a favourable variance.

- A Both statements are true.
 - B Both statements are false.
 - C Statement 1 is true and statement 2 is false.
 - D Statement 2 is true and statement 1 is false.
- (2 marks)**

49. The following costs occurred in the month of June at a fruit farm:

Seeds – type A	RWF1.75m
Seeds – type B	RWF2.25m
Wages for fruit A pickers	RWF2.5m
Wages for fruit B pickers	RWF2.5m
Rent for administration building	RWF1m

Telephone costs RWF0.25m

What was the overhead cost for June?

- A RWF1 million
- B RWF1.25 million
- C RWF4 million
- D RWF5 million

(2 marks)

50. Are the following statements about reporting significant variances true or false?

- 1 A significant revenue variance would be reported to the sales manager.
- 2 A significant office stationery expenses variance would be reported to the human resources manager.

- A Both statements are true.
- B Both statements are false.
- C Statement 1 is true and statement 2 is false.
- D Statement 1 is false and statement 2 is true.

(2 marks)

End of question paper

Total (100 marks)
