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**CERTIFIED ACCOUNTING TECHNICIAN (CAT)**  
**STAGE 1 EXAMINATION**  
**S1.2 PRINCIPLES OF COSTING**  
**DATE: 5 June 2019**

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**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.

Which of following is capital expenditure?

- A Maintaining the earning capacity of non-current assets
- B Day-to-day expenses incurred in conducting business
- C Selling and distribution expenses
- D Purchase of goods for resale
- E None of the above

(2 marks)

2. Giramahoro Ltd makes several products including Product AB. The requirements per unit of Product AB 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

Administration costs are RWF200,000 per year.

Product AB is sold in packs of ten and the packaging for ten units costs RWF1,400.

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

Giramahoro Ltd makes 10,000 units of Product AB a year.

What is the production cost per unit of Product AB?

- A RWF4,060
- B RWF4,360
- C RWF4,380
- D RWF5,620

(2 marks)

3. Total production costs and output over two periods have been:

<i>Period</i>	<i>Production costs</i> RWF'000	<i>Output</i>
1	135,200	191,000 units
2	112,100	158,000 units

Based on this experience, what are the estimated total costs for 160,000 units?

- A RWF1,500,000
- B RWF112,000,000
- C RWF113,264,000
- D RWF113,500,000
- E None of the above

(2 marks)

4. Which of the following statements about management accounting are **true**?

- (i) Management accounts are prepared primarily for managers.
- (ii) Management accounts consider future data only.
- (iii) Management accounts include financial and non-financial information.

- A (i) and (iii)
- B (ii) and (iii)
- C (ii) only
- D (iii) only

(2 marks)

5. Robert is paid a basic wage of RWF300 per hour. Overtime is paid at time and a third for all hours over 38 hours per week.

Robert's gross wage for week 3 was RWF13,800.

How many hours did Robert work in week 3?

- A 34.5 hours
- B 44 hours
- C 46 hours
- D 48.6 hours

(2 marks)

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6. Umuhoza Ltd produces snack food and biscuits and incurs the following costs:

Type 1: Interest incurred on a bank overdraft

Type 2: Office salaries and wages

Type 3: Chocolate used in the manufacture of snacks

Type 4: Television advertising for the biscuits

Using classification by function, which of the following shows the correct classification of the costs?

	<i>Production</i>	<i>Administration</i>	<i>Selling and distribution</i>	<i>Finance</i>	
A	Type 1	Type 3	Type 2	Type 4	
B	Type 4	Type 2	Type 3	Type 1	
C	Type 3	Type 2	Type 1	Type 4	
D	Type 3	Type 2	Type 4	Type 1	(2 marks)

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7. Which two of the following costs are fixed costs?

Type	Statement
1	Costs of RWF20,000,000 are made up of a cost of RWF5,000,000 and a further cost of RWF3,000 per unit at 5,000 units.
2	At 3,000 units the cost is RWF4,000 per unit and at 4,000 units the average cost is RWF3,000 per unit.
3	At 6,000 units the cost is RWF45,000,000 and at 8,000 units the cost is RWF60,000,000.
4	At 6,000 units the total cost is RWF60,000,000 and at 8,000 units the total cost is RWF60,000,000.

- A Types 1 and 2
- B Types 2 and 4
- C Types 3 and 4
- D Types 1 and 4

(2 marks)

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**The following information relates to questions 8 and 9**

Last month, trainee accountant Clement drafted the following report regarding budgeted and actual costs. Some of the figures are missing. Variances are considered to be significant if they are adverse and exceed 6% of budget or if they are favourable and exceed 8% of budget.

<i>Cost type</i>	<i>Budget</i>	<i>Actual</i>	<i>Variance</i>	<i>Variance</i>
	RWF'000	RWF'000	RWF'000	%
Revenue	510,200	556,118	?	?
Materials	82,530	?	5,777 Favourable	?
Labour	?	67,465	?	3% Adverse
Production overheads	34,340	35,670	?	?
Selling and distribution overheads	13,160	?	1,370 Adverse	?

8. What is the budgeted labour cost for the month?

- A RWF65,441,050
- B RWF65,500,000
- C RWF69,488,950
- D RWF69,551,546

**(2 marks)**

9. Which of the following statements are true?

- (i) The revenue variance is adverse.
- (ii) The materials variance is significant.
- (iii) The revenue variance should be reported to the purchasing manager.

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

**(2 marks)**

10. The cost per unit of an expense item at different levels of activity is shown below:

<i>Activity</i> <i>(units)</i>	<i>Average cost per unit</i>
	RWF'000
200	13.50
300	9.00
400	7.50
500	6.00

What is the behavioural classification of the expense item?

- A Fixed cost
- B Semi-variable cost
- C Stepped-fixed cost
- D Variable cost

**(2 marks)**

11. Umutoni Ltd makes a single product. Production of 5,000 units incurs the following costs:

Materials            6,500 kg at RWF600 per kg  
Labour 8,000 hours at RWF500 per hour  
Overheads          RWF700,000

What is the full unit cost at a production level of 5,000 units?

- A    RWF1,580
- B    RWF1,720
- C    RWF701,580
- D    RWF8,600,000
- E    None of the above

**(2 marks)**

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12. Francis is paid RWF420 an hour and is expected to make 50 units an hour. Any excess production will be paid a bonus of RWF100 per unit.

Which of the following statements are true?

- (i)    During a 42-hour week, if Francis produces 2,200 units, he would receive a bonus.
- (ii)   During a 40-hour week, if Francis produces 2,400 units, he would receive a bonus of RWF40,000.
- (iii)   During a 45-hour week, if Francis produces 2,500 units, he would receive total pay of RWF18,900.

- A    (ii) and (iii)
- B    (i) and (ii)
- C    (iii) only
- D    (i), (ii) and (iii)

**(2 marks)**

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13. A business has collected data relating to a particular cost incurred at four different activity levels:

- When the output was 5 units the cost totalled RWF20,000.
- When the output was 10 units the cost totalled RWF40,000.
- When the output was 50 units the cost totalled RWF200,000.
- When the output was 75 units the cost totalled RWF300,000.

Which of the following best describes this cost?

- A    A semi-variable cost
- B    A fixed cost
- C    A production cost
- D    A variable cost

**(2 marks)**

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14. Which of the following describes a trade payable?

- A    A person or organisation owing money to the business in return for goods supplied
- B    A person or organisation to whom the business owes money in return for goods supplied
- C    A person or organisation to whom the business owes money which was lent to finance the trading operations of the business
- D    A person or organisation who has purchased goods from the business

**(2 marks)**

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The following information relates to questions 15 and 16

Mugabo Ltd is an accountancy training company with a training centre. The training centre contains both classrooms for teaching and offices for administration staff. Its costs are coded using a four digit coding system. An extract from the coding system is as follows:

<i>Element</i>	<i>Code</i>	<i>Nature</i>	<i>Code</i>
Materials	500	Direct	A
		Indirect	B
Labour	600	Direct	A
		Indirect	B
Expenses	700	Direct	A
		Indirect	B

15. What is the coding for the wages of an accountancy tutor?

- A 600A
- B 600B
- C 700A
- D 700B

**(2 marks)**

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16. What is the coding for textbooks given to students?

- A 500A
- B 500B
- C 700A
- D 700B

**(2 marks)**

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17. Cost MM is fixed in total for a period.

If the level of activity in the period is increased by 50% what change would occur in Cost MM per unit of activity?

- A Decrease by a third
- B Decrease by a half
- C Increase by a third
- D Increase by a half

**(2 marks)**

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18. The following spreadsheet shows budgeted income and variances for last month for Maniraho Ltd.

Any variance in excess of 5% is considered significant.

	A	B	C
1	Income/Expenditure	Budget RWF'000	Actual RWF'000
2	Income	96,000	99,840
3	Material	9,200	9,844
4	Labour	11,000	11,440
5	Expenses	8,500	9,010

Which variances would be considered to be significant?

- A Income and material
- B Income and expenses
- C Material and labour
- D Material and expenses
- E None of the above

**(2 marks)**

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19. In a business that manufactures office furniture for resale, which of the following would be classed as direct costs?

- (i) Insurance of machinery
- (ii) Metal used in the manufacture of storage cabinets
- (iii) Wages paid to the office supervisor
- (iv) Plastic used in the production of desk drawer handles

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

**(2 marks)**

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20. Assuming a company uses the piecework method, which of the following statements is/are true?

- (i) An employee who is paid RWF200 per unit would earn RWF668,000 for production of 720 units
- (ii) An employee who is paid RWF125 per unit would earn RWF45,000 for production of 360 units
- (iii) Employees will earn more when production is increased

- A (ii) and (iii)
- B (i) and (ii)
- C (iii) only
- D (i), (ii) and (iii)

**(2 marks)**

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21. Rose runs a bakery and recorded the following inventory values at the month end:

- (i) Cakes awaiting icing – RWF165,000
- (ii) Honey – RWF50,000
- (iii) Cakes ready for sale – RWF250,000
- (iv) Butter – RWF100,000

Inventory is classed as raw materials, work in progress and finished goods.

What was the value of the raw materials at month end?

- A RWF150,000
- B RWF165,000
- C RWF250,000
- D RWF620,000

**(2 marks)**

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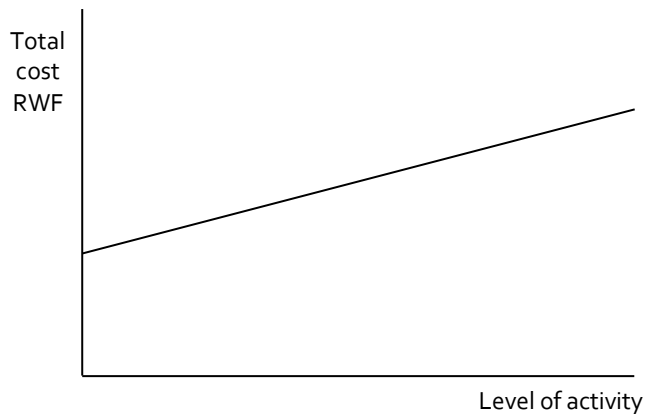
22. An investment centre manager is responsible for which of the following?

- A Investments only
- B Costs and investments only
- C Profit only
- D Costs, revenues and investments

**(2 marks)**

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



- A Factory supervisors' salaries
- B Factory rent
- C Piecework wages with a minimum wage
- D Direct materials

**(2 marks)**

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24. Division A incurred gross wages in September of RWF56.26 million. The wages analysis shows the following summary breakdown of the gross pay. Overtime was worked to catch up on a backlog after several employees were off sick.

	<i>Paid to direct labour</i> RWF'000	<i>Paid to admin staff</i> RWF'000
Ordinary time	31,125	11,900
Overtime: basic pay	6,490	3,500
premium	2,370	875

What is the direct wages cost for division A in September?

- A RWF31,125,000
- B RWF37,615,000
- C RWF39,985,000
- D RWF53,015,000

**(2 marks)**

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25. The opening inventory of a single raw material in the stores is 900 units at RWF600 per unit. At the start of the month, 300 units at RWF650 per unit are received and later in the month 500 units are issued.

Are the following statements true or false?

- 1 FIFO values the closing inventory at RWF435,000.
  - 2 AVCO values the closing inventory at RWF428,750.
- 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)**

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26. Karera Ltd has recorded the following data in the last few months.

<i>Total costs of production</i> RWF'000	<i>Volume of production</i> Units
8,458	444
9,648	614
9,663	575

Based on these figures, what are the company's fixed costs per month?

- A RWF859,382
- B RWF1,190,000
- C RWF4,373,877
- D RWF5,350,000
- E None of the above

**(2 marks)**

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**The following information relates to questions 27 and 28**

27. Twizeyimana Ltd is a company that makes sports equipment and incurs the following costs:

	RWF'000
Bank overdraft interest	3,000
Factory insurance	10,000
Fuel for delivery van	25,000
Advertising costs	22,000
String used in badminton racquets	50,000
Wages of racquet stringers	60,000

What is the total overhead cost?

- A RWF13,000,000
- B RWF32,000,000
- C RWF35,000,000
- D RWF60,000,000

**(2 marks)**

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28. How much of the costs are production costs?

- A RWF110,000,000
- B RWF121,000,000
- C RWF135,000,000
- D RWF146,000,000

**(2 marks)**

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The following information relates to questions 29, 30 and 31

Nduwayezu Ltd had no opening inventory and recorded the following receipts and issues for the quarter.

1 July	Receipt	2,400 units for RWF600 per unit
31 July	Receipt	4,000 units for RWF620 per unit
15 August	Issue	5,100 units
20 August	Receipt	1,500 units for RWF650 per unit
24 September	Issue	500 units

29. What is the value of the issue on 15 August using the first in, first out (FIFO) method?

- A RWF3,060,000
- B RWF3,114,000
- C RWF3,123,750
- D RWF3,140,000

**(2 marks)**

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30. Using the last in, first out (LIFO) method of inventory valuation, what was the value of total issues for the period?

- A RWF1,430,000
- B RWF3,140,000
- C RWF3,414,000
- D RWF3,465,000

**(2 marks)**

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31. What is the value of the issue on 15 August using the average cost method (AVCO)?

- A RWF3,060,000
- B RWF3,114,000
- C RWF3,123,750
- D RWF3,136,500

(2 marks)

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32. Which of the following managers would a significant income variance be reported to?

- A Purchasing manager
- B Administration manager
- C Human resources manager
- D Production manager
- E None of the above

(2 marks)

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33. DCE Ltd is an airline.

Which of the following are indirect costs for DCE Ltd?

- (i) Fuel for planes
  - (ii) Pilots' wages
  - (iii) Airport landing fees
  - (iv) Advertising
- A (i), (ii) and (iii)
  - B (ii) and (iii)
  - C (iii) and (iv)
  - D (iv) only

(2 marks)

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34. A hair salon incurs the following costs:

Type 1: Interest incurred on a bank overdraft

Type 2: Hair stylists' wages

Type 3: Shampoo and conditioner

Type 4: Advertising fliers

Which of the following shows the correct classification of the costs?

- |   | <i>Type 1</i> | <i>Type 2</i> | <i>Type 3</i> | <i>Type 4</i> |
|---|---------------|---------------|---------------|---------------|
| A | Expense       | Labour        | Expense       | Expense       |
| B | Material      | Labour        | Expense       | Expense       |
| C | Expense       | Material      | Material      | Labour        |
| D | Expense       | Labour        | Material      | Expense       |

(2 marks)

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35. Which of the following statements are true?

- (i) Costing cannot be used for service businesses, only for manufacturing businesses.
  - (ii) Information to help with future costs can be sourced from inside and outside the organisation.
  - (iii) The budgeted number of units of sale is a good source of data for estimating future income.
- A (i), (ii) and (iii)
  - B (ii) and (iii)
  - C (i) and (iii)

D (ii) only

(2 marks)

36. Which of the following are work in progress?

- (i) Wheat held by a flour miller
- (ii) Drinks awaiting bottling by a drinks manufacturer
- (iii) Doors awaiting polishing by a door manufacturer
- (iv) New cars held by a car manufacturer

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

(2 marks)

37. Kayitesi Ltd is a manufacturing organisation with 50 employees.

The basic hourly rate is RWF500 for a standard 35-hour week.

Overtime hours are paid at time and a half.

Last week the employees each worked four hours of overtime and produced a total 1,000 units.

What is the average unit labour cost for the product?

- A RWF925
- B RWF975
- C RWF1,025
- D RWF1,025,000
- E None of the above

(2 marks)

38. Eustache is a car salesman earning a basic wage of RWF400 per hour for a 35-hour week. He is entitled to a bonus of RWF5,000 per car sold. In week 2, he sold three cars.

Alphonse is a mechanic earning RWF450 per hour for a 35-hour week with overtime paid at double time. In week 2 he worked 40 hours.

Are the following labour calculations correct or incorrect for week 2?

	<i>Basic pay</i>	<i>Overtime or bonus</i>
	RWF	RWF
Eustache	14,000	15,000
Alphonse	15,750	2,250

- A Both employees' labour calculations are correct.
- B Both employees' labour calculations are incorrect.
- C Eustache's is correct and Alphonse's is incorrect.
- D Eustache's is incorrect and Alphonse's is correct.

(2 marks)

39. In June, a company budgets to produce 25,000 units with the following total costs:

Material	4,000 kg @ RWF500 per kg
Labour	9,000 hours @ RWF450 per hour
Overheads	RWF990,000

The actual costs in June were RWF7,625,000.

What was the total cost variance in June?

- A RWF585,000 Favourable

- B RWF585,000 Adverse
- C RWF1,575,000 Favourable
- D RWF1,575,000 Adverse

**(2 marks)**

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40. Mutabazi Ltd currently uses the last in, first out (LIFO) method of inventory valuation and has an opening inventory value of RWF9,000,000 on 1 February (300 units valued at RWF30,000 each). Receipts and issues were recorded as follows for February:

3 February	Receipts	220 units for RWF40,000 per unit
15 February	Issues	180 units
16 February	Issues	100 units
20 February	Receipts	120 units for RWF48,000 per unit

If Mutabazi Ltd changed from the LIFO to the first in, first out (FIFO) method of inventory valuation, how would the profits be affected?

- A Profits would increase by RWF8,400,000.
- B Profits would decrease by RWF8,400,000.
- C Profits would increase by RWF2,200,000.
- D Profits would decrease by RWF2,200,000.

**(2 marks)**

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41. Bazizane Ltd manufactures windows.

Which of the following lists could be used as cost centres for Bazizane Ltd?

- (i) Cost per window, cost per day
- (ii) Direct costs, indirect costs
- (iii) Construction, glazing, administration, selling and distribution

- A (i), (ii) and (iii)
- B (i) and (iii)
- C (i) and (ii)
- D (iii) only

**(2 marks)**

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42. M Ltd has a significant direct materials variance during the month.

This should be reported to which two of the following managers?

- (i) Distribution manager
- (ii) Sales manager
- (iii) Production manager
- (iv) Purchases manager
- (v) Human resources manager

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

**(2 marks)**

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43. During 2013, Umwali Ltd bought new factory premises for RWF60 million and built an extension to its head office at a cost of RWF25 million. Machinery was maintained at a cost of RWF4 million during the year and the head office was repainted at a cost of RWF5 million. What was Umwali Ltd's capital expenditure in 2013?

A RWF60 million  
B RWF85 million  
C RWF89 million  
D RWF94 million

(2 marks)

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44. MK Ltd is a meal delivery service and incurs the following costs in June:

	RWF'000
Cost of transporting vegetables from the supplier's premises	4,000
Wages of factory workers engaged in oven and equipment maintenance	89,000
Depreciation of vehicles used for deliveries to customers	20,000
Cost of indirect production materials	25,000

What is the total prime cost for June?

A RWF4,000,000  
B RWF93,000,000  
C RWF118,000,000  
D RWF138,000,000  
E None of the above

(2 marks)

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45. Which of the following statements are true?

- (i) The material cost per unit was budgeted to be RWF400 but was actually RWF500, so an adverse material variance will arise.
- (ii) Labour costs were as budgeted, but although time was budgeted to be 20 hours, only 15 hours were needed, so an adverse labour variance will arise.
- (iii) Production overheads were budgeted to be RWF20 million but actual costs were 10% less, so a favourable variance will arise.
- (iv) Revenue was 50% less than expected, so a favourable variance will arise.

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

(2 marks)

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46. A manufacturing organisation has 20 employees who are paid a basic hourly rate for a standard 40-hour week. Each unit they produce takes 15 mins but 5% of units made are faulty. How many good units should the organisation produce in a week?

A 3,040 units  
B 3,200 units  
C 11,400 units  
D 12,000 units

(2 marks)

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47. K Ltd recorded a favourable material variance of 5% of budget in December. The variance was RWF45,000.

What was the actual cost of material in December?

- A RWF132,750
- B RWF855,000
- C RWF900,000
- D RWF945,000

**(2 marks)**

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48. M Ltd produces chocolates and sweets. The costs for July were:

Colourings for sweets	RWF100 million
Packaging for chocolates	RWF20 million
Heating and lighting for office	RWF40 million
Depreciation for plant and equipment	RWF50 million
Wages of machine operatives	RWF130 million

What was the total overhead cost for July?

- A RWF40 million
- B RWF50 million
- C RWF90 million
- D RWF110 million
- E None of the above

**(2 marks)**

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49. A company employs 25 direct production operatives and 15 indirect staff in its manufacturing department. The normal operating hours for all employees is 40 hours per week and all staff are paid RWF450 per hour. Overtime working is to satisfy general production requirements and needs both direct and indirect staff. Hours are paid at the basic rate plus 50%.

During a particular week all employees worked for 45 hours.

What amount would be charged as an indirect cost?

- A RWF45,000
- B RWF303,750
- C RWF320,625
- D RWF348,750

**(2 marks)**

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50. Which of the following are true?

- (i) With LIFO, inventories are issued at a price which is close to the current market value.
- (ii) With FIFO, the inventory valuation will be very close to replacement cost.
- (iii) Under the weighted average method of inventory valuation, a new price is calculated whenever there is an issue of materials.

- A (i) only
- B (i) and (ii)
- C (i) and (iii)
- D (ii) and (iii)

**(2 marks)**

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**Total (100 marks)**

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