

**ASSOCIATION OF ACCOUNTANCY BODIES IN WEST AFRICA  
ACCOUNTING TECHNICIANS SCHEME, WEST AFRICA**

**PART III EXAMINATIONS – MARCH 2022**

**COST ACCOUNTING**

**Time Allowed: 3 hours**

**SECTION A:        PART I        MULTIPLE-CHOICE QUESTIONS        (30 Marks)**

**ATTEMPT ALL QUESTIONS**

**Write ONLY the alphabet (A, B, C, D or E) that corresponds to the correct option in each of the following questions/statements.**

1. Cost Accounting is concerned with all the following, **EXCEPT**
  - A. Establishment of budgets and standard costs
  - B. Determination of actual costs of operation
  - C. Providing information on historical costs of operation
  - D. Establishment of the analysis of variances
  - E. General administration of the business
2. Decision making is concerned with
  - A. Prioritising suppliers' payments
  - B. Establishment of cost objectives
  - C. Design of cost system and procedures
  - D. Making a choice between alternatives
  - E. Analysis and recording of past costs
3. Cost per unit of production or service provided by costing system is used by management as a factor in
  - A. Material cost control
  - B. Wages cost control
  - C. Organisational planning
  - D. Production planning and cost control
  - E. Capital expenditure decision making
4. A good cost accounting information must possess all the following qualities, **EXCEPT**
  - A. Tax consciousness
  - B. Timeliness
  - C. Accuracy
  - D. Cost effectiveness
  - E. Robustness

5. The amount of expenditure incurred on or attributable to, a specified thing or activity is referred to as
- A. Cost
  - B. Cost per unit
  - C. Price
  - D. Total cost
  - E. Imputed cost
6. Which of the following is the correct basis of apportioning costs of rates and cleaning between cost centers in an organisation?
- A. Floor Area
  - B. Number of employees
  - C. Turnover
  - D. Book value of premises
  - E. Volume of production
7. Which of the following is **NOT** an example of a cost unit?
- A. A piece of machine
  - B. Guest per night
  - C. Passenger per trip
  - D. Outpatient visit
  - E. Kilowatt-hour
8. Prime Cost + Indirect Cost =
- A. Factory Overhead
  - B. Production Cost
  - C. Market Value of Production
  - D. Total Cost
  - E. Cost of work in progress
9. The costs that need to be considered when taking a decision are known as
- A. Period costs
  - B. Unavoidable costs
  - C. Variable costs
  - D. Product costs
  - E. Relevant costs
10. Which of the following does **NOT** belong to costs classified according to behaviour?
- A. Fixed cost
  - B. Stepped fixed cost
  - C. Product cost
  - D. Variable cost
  - E. Mixed cost

11. Which of the following is **NOT** affected by cost behaviour?
- A. Nature of cost
  - B. The existence of spare capacity
  - C. Element of cost
  - D. The level of activity
  - E. The volume of sales demand
12. The process of cost allocation involves
- A. Sharing of a common cost
  - B. Allotment of direct cost
  - C. Re-budgeting of production cost
  - D. Allotment of whole items of cost
  - E. Recovery of overhead cost
13. Which of the following is **NOT** a semi-variable cost?
- A. Cost of electricity
  - B. Telephone charges
  - C. Salesman salary
  - D. Cost of running of motor vehicle
  - E. Rent of a factory premises
14. A production or service location, function or activity for which cost, and revenue can be ascertained is known as
- A. Operation centre
  - B. Profit centre
  - C. Revenue centre
  - D. Cost centre
  - E. Functional centre
15. Which of the following does **NOT** characterise a Just-In-Time (JIT) environment?
- A. A move towards a batch size of one
  - B. Storage-pull production
  - C. A move towards zero inventory
  - D. 100% on time deliveries
  - E. Elimination of non-value adding activities
16. Which of the following is **NOT** a reason for stock-taking error?
- A. Frequent verification of stock sheet
  - B. Error in weighing, counting or measuring
  - C. Omitting a whole group of stock
  - D. Poor writing, illegible figures causing misreading
  - E. Calculation errors on stock

17. Given: Usage      40 – 120 units  
          Lead time    20 – 30 days  
          EOQ            2,500 units

The maximum stock level is

- A. 1,700 units  
B. 2,500 units  
C. 3,495 units  
D. 3,600 units  
E. 5,300 units
18. Which of the following items would **NOT** be considered as part of the cost of imported materials taken into stores?
- I. Trade discount  
II. Freight and carriage charges  
III. VAT  
IV. Cost of non-returnable containers
- A. I  
B. III  
C. I & III  
D. III & IV  
E. I, III & IV
19. A cost driver is
- A. An activity which generates cost  
B. A common cost which is shared over cost centers  
C. A cost that connects all cost together  
D. Any cost incurred by a transport firm  
E. An item of factory overheads

**Use the following information to answer questions 20 and 21.**

Joseph values his stock of raw materials at the end of every month using weighted average method. His raw material purchases for the month of June was as follows:

June 5	-	1,000 kgs @	₦25 per kg
June 19	-	2,500 kgs @	₦20 per kg
June 28	-	1,100 kgs @	₦28 per kg

During the same period, Joseph issued the following quantities of raw materials for factory use: 1,300kgs on June 20, 1,500kgs on June 25, and 1,600kgs on June 30.

20. What is the value of materials issued on June 25
- A. ₦25,125
  - B. ₦30,000
  - C. ₦32,145
  - D. ₦33,700
  - E. ₦37,500
21. At which price would the closing stock of raw materials at June 30 be valued?
- A. ₦24.33
  - B. ₦24.43
  - C. ₦25.45
  - D. ₦25.63
  - E. ₦28.00
22. Which of the following is **NOT** a basic production-based remuneration scheme?
- A. Piece work
  - B. Inconvenience allowance
  - C. Time work
  - D. High day-rate system
  - E. Overtime premium
23. Which of the following is **NOT** a primary source of information for labour remuneration preparation?
- A. Attendance Register
  - B. Clock cards
  - C. Job sheets
  - D. Tax Clearance Certificate
  - E. Clocking cards
24. Which of the following is **NOT** a precaution to eliminate or reduce payroll fraud?
- A. Payment countermand at bank
  - B. Work segregation
  - C. Institution of suitable procedures on employee identification
  - D. Adequate authorisation procedures
  - E. Proper supervision of material deliveries
25. Which of the following is **NOT** a functional classification of overheads
- A. Administrative Overheads
  - B. Production Overheads
  - C. Operating Overheads
  - D. Selling Overheads
  - E. Distribution Overheads

26. Which of the following relevant ledgers is NOT maintained under interlocking accounting system?
- A. Work-in-progress ledger
  - B. Production overhead ledger
  - C. Cost of sales ledger
  - D. Stores ledger
  - E. Nominal ledger
27. Which of the following are subdivisions of specific order costing?
- I Job costing
  - II Process costing
  - III Service costing
  - IV Batch costing
  - V Contract costing
- A. I & IV
  - B. I, IV & V
  - C. II, III & IV
  - D. II, III & V
  - E. I, II, III, IV & V
28. Which of the following is **NOT** a requirement for an effective and workable job costing system?
- A. Quantity of identical items ordered by customer
  - B. Sound system of communication
  - C. Well organised apportionment basis
  - D. Appropriate time booking system
  - E. Comprehensive work documentation
29. A site engineer assesses the value of work on a contract site to be GH¢2,000,000. The initial payment made on the contract was GH¢850,000 and the agreed retention percentage is 20%. What is the amount of the current progress payment?
- A. GH¢680,000
  - B. GH¢750,000
  - C. GH¢920,000
  - D. GH¢1,150,000
  - E. GH¢1,600,000
30. The costing method commonly used in petroleum refinery is
- A. Batch costing
  - B. Job costing
  - C. Service costing
  - D. Process costing
  - E. Contract costing

## SECTION A: PART II

## SHORT ANSWER QUESTIONS

### ATTEMPT ALL QUESTIONS

**Write the correct answer that best completes each of the following questions/statements**

1. The collection of cost data in an organised way by means of an accounting system is .....
2. A general term that encompasses tracing accumulated costs and allocating such costs to a cost object is .....
3. Cost = quantity multiplied by .....
4. Any activity for which a separate measurement of costs is desired is known as.....
5. Costs which may be saved when a given alternative option is adopted are referred to as .....
6. The way in which total costs per unit are affected by fluctuations in the level of activity is referred to as .....
7. Special charges made in the cost accounts, but not in the financial accounts to reflect the use of the company's assets is known as .....
8. A stock recording system whereby the stock balance is shown on the record after every stock movement is known as .....
9. The two main approaches to the task of stock-taking are ..... and .....
10. The budgeted productive hours for a piece of work after 20% idle time has been incurred is 15,600 hours. If the total budgeted wage bill is Le113,100, what will be labour wage per hour?
11. The totality of indirect cost associated with manufacturing activities is referred to as .....
12. The costing technique for sharing overheads between different products on a fair basis, reflecting volume and efforts is .....
13. The point of focus for accumulating costs relating to an activity in an activity-based costing system is known as .....

14. Continuous operation/process costing is sometimes called .....
15. Kerry undertakes a job that costs L\$600,000 to complete, if Kerry is expecting a sales margin of 20% on the job, what will be the price of the job?
16. The decision rule where a binding single limiting factor exists is to maximise.....per unit of the limiting factor
17. The costs already incurred, which are not relevant for making a decision towards a proposed project is referred to as .....
18. The activity which helps to design products which meet customer needs at lowest cost while assuring the required standard of quality and reliability is .....
19. Work study as a means of raising production efficiency of an operating unit has two main parts, namely, ..... and.....
20. The concept of continuous improvement that involves everybody from the CEO to the most junior employee is called .....



**SECTION B: ATTEMPT ANY FOUR QUESTIONS****(50 MARKS)****QUESTION 1**

1. APEXA Garments Limited started business three years ago as a maker of children's dresses. The company's scope of operation has expanded to a level that requires establishment of a cost accounting system. The Company's Managing Director has invited you to make a brief presentation to the management on Cost Accounting System using the following as guides:
- a. Definition of Cost Accounting. (1 Mark)
  - b. THREE aims of establishing cost accounting system. (1 ½ Marks)
  - c. FIVE main purposes of using cost codes in a business organisation. (5 Marks)
  - d. FIVE advantages of Cost Accounting Information. (5 Marks)

**(Total: 12 ½ Marks)****QUESTION 2**

- a. Define the term overhead apportionment (1 Mark)
- b. Estopp Limited has three production departments; Mashing, Boiling and Fermenting, and two main service departments; Transport and Security.

The overheads incurred by the departments are as follows:

Department	L\$
Mashing	192,000
Boiling	128,000
Fermenting	104,000
Transport	38,400
Security	24,000

Analysis of the services provided by Transport and Security departments reveals the following percentages of total time spent for the benefit of each department.

Service Department	Production Department			Service Department	
	Mashing	Boiling	Fermenting	Transport	Security
Transport	35%	30%	20%	-	15%
Security	60%	10%	20%	10%	-

**Required:**

Show the apportionment of production service department costs to production departments using the repeated distribution method. (11 ½ Marks)

**( Total:12 ½ Marks)**

**QUESTION 3**

The following balances were extracted from the books of TIMEXX Construction Limited in respect of construction of an office complex awarded to it by Estyl Corporation on 1<sup>st</sup> July 2019. The Company prepares its accounts to 30<sup>th</sup> June, 2020.

	<b>₦</b>
Materials purchased for the project	360,000
Material issued from store	180,000
Cost of plant used on site	120,000
Wages	250,000
Direct Expenses	85,600
Head Office Expenses	33,400
Sub-Contractor Charges	30,650
Cash received relating to work certified	935,000

**Additional Information**

- (i) The materials on site on 30<sup>th</sup> June 2020 was ₦154,350
- (ii) Accrued wages and direct expenses were ₦15,650 and ₦8,350 respectively as at 30<sup>th</sup> June 2020.
- (iii) Depreciation on plant is to be provided at 25% per annum
- (iv) The cash received was in respect of work completed and certified as at 30<sup>th</sup> June 2020 from which a retention fee of 15% was deducted.
- (v) The company only takes credit for 2/3 of the profit on the work certified.

**You are required to:**

- a. Prepare Contract Account for the year ended 30<sup>th</sup> June 2020, showing the amount included in TIMEXX Construction Limited profit and loss account. (8 ½ Marks)
- b. Calculate the work in progress. (2 Marks)
- c. Show Estyl Corporation Account in the books of TIMEXX Construction Limited. (2 Marks)

**(Total: 12 ½ Marks)**

#### QUESTION 4

Skidon Limited has a cash balance of GMD432,000 as at the beginning of June.  
The following information are extracted from the records of the company.

(i) Creditors for purchases give 1 month's credit

(ii) Credit sales are settled as follows:

40% in month of sale

45% in the next month

12% in the following month

The balance is considered in receivables

(iii) Salaries are paid in the current month

(iv) Fixed overheads are paid one month in arrears which also include a monthly depreciation of GMD80,000

(v) Other budgeted payments and receipts for the period are presented in the table below.

Month	Cash Sales	Credit Sales	Purchases	Salaries	Fixed Overheads
	GMD	GMD	GMD	GMD	GMD
April		1,184,000	883,200	144,000	480,000
May		1,312,000	979,200	144,000	480,000
June	320,000	1,280,000	960,000	152,000	480,000
July	352,000	1,440,000	1,104,000	209,000	512,000
August	400,000	1,600,000	1,200,000	160,000	512,000

**You are required to prepare for June, July and August:**

a. A schedule of budgeted collection from debtors (4 Marks)

b. A cash budget (8 ½ Marks)

**(Total: 12 ½ Marks)**

## QUESTION 5

Wesco Limited has received a request for quotation for a one-off contract from a customer.

The company uses relevant costing approach when quoting for a contract of such nature. According to the contract specifications, Wesco Limited will require two types of materials and a certain number of skilled labour hours for the contract.

**Material Y.** The contract requires 4,800 litres of this material, which is also used by the company in its normal production activities. The company currently has in stock 3,200 litres of material Y which it has purchased few weeks back at a cost of GMD313,600. At the time of preparing the quotation the price of the material has risen by 5%.

**Material Z.** 320 litres of this material will be required. 400 litres of the material which cost GMD50,000 are in the store and are not required for normal production. If not used on the contract, the stock of material Z would be sold for GMD176 per litre.

**Skilled Labour.** 1280 hours of skilled labour will be required. Skilled labour is paid GMD152 per hour. The company usually produces TAR, and on which all its available skilled labour are engaged.

The following information relates to production of TAR.

	GMD per litre
Selling price	1,600
Skilled labour	(608)
Other variable costs	<u>(352)</u>
Contribution	<u>640</u>

### Required:

Prepare calculations showing the total relevant costs for deciding about the contract with respect to the following cost elements.

- Materials Y and Z (5 ½ Marks)
- Skilled labour (4 Marks)
- Total contract relevant cost (3 Marks)

**(Total: 12 ½ Marks)**

## QUESTION 6

- a. The cash flows of Sankay Limited for three projects A, B and C are given below:

	<b>Project A</b>	<b>Project B</b>	<b>Project C</b>
	<b>Le</b>	<b>Le</b>	<b>Le</b>
Capital Expenditure	80,000	128,000	144,000
Cash Inflow			
Year 1	40,000	24,000	52,000
2	16,000	32,000	66,000
3	16,000	40,000	26,000
4	8,000	16,000	26,000
5	24,000	16,000	28,000
6	12,800	40,000	20,000

**You are required to:**

Calculate the payback period for the three projects. (10 ½ Marks)

- b. List **FOUR** reasons why payback method of capital investment appraisal is widely used despite its limitation.

(2 Marks)

**(Total: 12 ½ Marks)**

## **SOLUTION TO QUESTIONS**

### **PART 1**

### **MULTIPLE-CHOICE**

1. D
2. A
3. A
4. A
5. A
6. D
7. E
8. C
9. E
10. D
11. E
12. B
13. B
14. A
15. E
16. A
17. A
18. C
19. C
20. B
21. D
22. E
23. C
24. E
25. B
26. B
27. B
28. D
29. D
30. B

## Workings

Q 17.

Maximum stock level

$$= \text{Reorder level} + \text{EOQ} - (\text{Minimum usage} \times \text{minimum lead time})$$

Reorder level = maximum usage x maximum lead time

$$= 120 \times 30 = 3600 \text{ units}$$

$$\text{Maxi stock level} = 3600 + 2500 - (40 \times 20)$$

$$= \underline{5300 \text{ units}}$$

Q 20.

Weighted Average Price =  $\frac{\text{Stock Value} + \text{Receipt Value}}{\text{Quantity in Stock} + \text{Quantity Received}}$

Quantity in Stock + Quantity Received

$$\frac{(1,000\text{kg} \times \text{N}25) + (2,500\text{kg} \times \text{N}20)}{(1000 + 2500)}$$

$$= \frac{\text{N}75,000}{3,500} = \text{N}21.428$$

$$= \text{N}21.428$$

$$3,500\text{kg} = \text{approx. N}21.43$$

No material was purchased after the issue of 1,300kg on June 20. Therefore, the next issue of 1500kg of June 25 will be valued at N21.43

$$1500\text{kg} \times \text{N}21.43 = \underline{\text{N}32,145}$$

Q.21.

The price at which closing stock of raw materials would be valued:

$$= \frac{(700\text{kg} \times \text{N}21.43) + (1,100 \times \text{N}28)}{700\text{kg} + 1,100\text{kg}} = \underline{\text{N}25.45}$$

Q 29

Current progress payment

$$= \text{Value Certified} - \text{Retention} - \text{Payment made already}$$

$$= \text{N}2,000,000 - 20\% (2,000,000) - 850,000$$

$$= 2,000,000 - 400,000 - 850,000$$

$$= \underline{\text{N}750,000}$$

## PART 11 SHORT-ANSWERS

1. Cost accumulation
2. Cost assignment
3. Price/Rate
4. Cost object
5. Avoidable cost
6. Cost behaviour
7. Notional Charges
8. Perpetual inventory
9. Periodic stocktaking and continuous stocktaking
10. ~~₦~~5.80
11. Production/Manufacturing overhead
12. Overhead Apportionment
13. Cost pools
14. Average costing/Repetitive/Rolling/Perpetual Operation
15. ~~₦~~750,000
16. Contribution
17. Sunk cost/Historical Cost/Past Cost
18. Quality Assurance/Total Quality Management
19. Methods study and Work measurement
20. Kaizen

### WORKINGS

$$\begin{aligned}\text{Q10. The total labour hours} &= \frac{15,600 \text{ or } 15,600 \times 100}{(1-0.20) \quad 1 \quad 80} \\ &= 19,500 \text{ hours} \\ \text{: Wage per hour} &= \frac{\text{₦}113,100}{19,500 \text{ hrs}} = \text{₦}5.80 \\ \text{Q. 14. Price of Job} &= \frac{600,000}{(1-0.20)} = \text{₦}750,000\end{aligned}$$



## QUESTION 1

### a. Definition of Cost Accounting

The establishment of budgets, standards, costs and actual costs operations, processes, activities or products; and the analysis of variances, profitability, or the social use of funds.

### Alternative Solution

Cost Accounting is the application of accounting and costing principle, methods and techniques in the ascertainment of cost and the analysis of savings and/or excesses as compared with previous experience or standard.

### b. Aims of establishing cost accounting system

- i. Ascertainment of the cost of goods produced or services provided
- ii. Ascertainment of the future costs of goods and services
- iii. Comparison of budgeted costs, with the actual costs and then investigate the variances
- iv. Determination of profitability or otherwise of a product, a service, a department or the entire organisation.
- v. Identification of management needs in terms of information, in order to make sound decisions.
- vi. Confirmation of the cost of goods produce or services provided

### c. Purposes of using cost codes in business

- i. To facilitate mechanized data processing
- ii. To serve as a control over the accuracy of postings by establishing check codes.
- iii. To aid logical and systematic arrangement of costing records.
- iv. To assist precise identification of items.
- v. To reduce clerical work.
- vi. To reduce data storage, since a codes occupy lesser storage space than full description.
- vii. It assists the organization to effectively manage cost.
- viii. It aids in identifying profit making
- ix. It helps the management in time management
- x. It aids in sustainability growth

### d. Advantages of Cost Accounting

- i. It helps in identification of efficient and inefficient methods in order to take corrective measures to improve efficiency.

- ii. It helps to facilitate production control
- iii. It helps to identify profitable and unprofitable product, projects and services
- iv. It facilitates stock control
- v. It facilitates accurate estimation of cost of various cost units.
- vi. It aids decision making such as make or buy, delete or retain pricing or Outsourcing.
- vii. It helps to generate comparative information on jobs, products, projects and Services.
- vii. It assists in improving cost efficiency
- ix. It improves departmental accountability
- x. It gives in pricing decisions.

## QUESTION 2

a. Overhead apportionment is the procedure whereby indirect costs are spread fairly between cost centres

b.

	Mashing R	Production Department Boiling R	Service Department Fermenting R	Service Department Transport R	Security R
Overhead Cost	192,000	128,000	104,000	38,400	24,000
Reapportion					
Transport(3.5:3:2:1.5)	13,440	11,520	7,680	(38,400)	5,760
Reapportion					
Security(6:1:2:1)	17,856	2,976	5,952	2,976	(29,760)
Reapportion					
Transport(3.5:3:2:1.5)	1,041.60	892.80	595.2	(2,976)	446.40
Reapportion					
Security(6:1:2:1)	267.84	44.64	89.28	44.64	(446.40)
Reapportion					
Transport(3.5:3:2:1.5)	15.62	13.39	8.93	(44.64)	6.70
Reapportion					
Security(6:1:2:1)	4.02	0.67	1.34	0.67	(6.70)
Reapportion					
Transport(3.5:3:2:1.5)	0.23	0.20	0.13	(0.67)	0.10
Reapportion					
Security(6:1:2:1)	0.06	0.01	0.02	0.01	(0.10)
	<u>224,625.38</u>	<u>143,447.71</u>	<u>118,326.90</u>		

### QUESTION 3

a.

<u>TIMEXX Construction Ltd</u>				
DR	Contract Account			CR
	<u>₦</u>	<u>₦</u>		<u>₦</u>
Materials purchased for site		360,000	Materials c/f	154,350
Materials issued		180,000	Cost of date c/f	839,300
Cost of plant ( <del>₦</del> 120, 000×25%)		30,000		
Wages	250,000			
Accrued wages	<u>15,650</u>	265,650		
Direct expenses	85,600			
Accrued expenses	<u>8,350</u>	93,950		
Head office expenses		33,400		
Sub-contractor charges		<u>30,650</u>		
		<u>993,650</u>		<u>993,650</u>
Cost to date b/d		839,300	Value of work certified (wk)	1,100,000
National profit:				
- Taken	147,730			
-Not taken	<u>112,970</u>	<u>260,000</u>		
		<u>1,100,000</u>		<u>1,100,000</u>
Material b/f		154,350	Profit b/f	112,975

b. Work – in- progress

	<u>₦</u>
Cost to date	839,300
Profit taken	<u>147,730</u>
	987,030
Cash Received	<u>(935,000)</u>
Work –in-progress	<u>52,030</u>

c. Estyl Corporation

	₦		₦
Work Certified	1,100,000	Cash received	935,000
		Bal c/d	165,000
	<u>1,100,000</u>		<u>1,100,000</u>
Balance b/d	165,000		

Working:

$$1. \text{ Cash received (including retention)} = \frac{\text{₦}935,000}{(1 - 0.15)} = \text{₦}1,100,000$$

$$2. \text{ Notional profit (₦}1,100,000 - \text{₦}839,300) = \text{₦}260,700$$

$$3. \text{ Profit taken} = \frac{2}{3} \times \frac{\text{Notional Profit} \times \text{cash received}}{\text{work certified}}$$

$$\frac{2}{3} \times \frac{260,700}{1} \times \frac{935,000}{1,100,000} = \text{₦}147,730$$

**QUESTION 4**

a. Schedule of Budgeted Debtors Collection

	June ₦	July ₦	August ₦
Debtors as at April 28, 2020	142,080		
Debtors as at May	590,400	157,440	
June Sales (wk1)	512,000		153,600
		576,000	
July Sales (wk1)			
		576,000	648,000
August Sales(wk1)			
			<u>640,000</u>
	<u>1,244,480</u>	<u>1,309,440</u>	<u>1,441,600</u>

b. Cash Budget

	June N	July N	August N
Opening balance	432,000	465,280	557,720
Receipts from Debtors	1,244,480	1,309,440	1,441,600
Cash Sales	<u>320,000</u>	<u>352,000</u>	<u>400,000</u>
Total Cash available	<u>1,996,480</u>	<u>2,126,720</u>	<u>2,399,320</u>
Purchases	979,200	960,000	1,104,000
Salaries	152,000	209,000	160,000
Fixed Overheads (wk2)	<u>400,000</u>	<u>400,000</u>	<u>432,000</u>
Total Disbursement	<u>1,531,200</u>	<u>1,569,000</u>	<u>1,696,000</u>
Balance c/f	<u>465,280</u>	<u>557,720</u>	<u>703,320</u>

Workings

	Current N	1month N	2month N
	40%	45%	12%
June Sales N1,280,000	512,000	576,000	153,600
July Sales N1,440,000	596,000	648,000	-
August N1,600,000	640,000	-	-

  

	June N	July N	August N
Fixed Overheads			
Amount (arrears)	480,000	480,000	512,000
Depreciation	<u>(80,000)</u>	<u>(80,000)</u>	<u>(80,000)</u>
	<u>400,000</u>	<u>400,000</u>	<u>432,000</u>

## QUESTION 5

<b>a.</b>	Relevant material costs for material Y and Z	GMD
	Material Y- material currently in stock (3,200@GMD102.90)	329,280
	-Additional materials required (1,600@GMD102.90)	<u>164,640</u>
		<u>493,920</u>
	Material Z-materials Required (320 @ GMD176)	<u>56,320</u>

### Working

Replacement price/ltr for material Y with 5% inflation rate

$$= \left( \frac{313,600}{3,200} \right) \times 1.05 = \underline{\underline{\text{GMD102.9}}}$$

	Total Relevant cost for Skilled Labour	GMD
<b>b.</b>	Skilled Labour (1,280hrs @ GMD152)	194,560
	Opportunity cost of Labour (1,280hrs @ GMD160)	<u>204,800</u>
		<u>399,360</u>

### Working

$$\text{Contribution of TAR forgone} = \frac{\text{GMD640}}{4\text{hrs}} = \text{GMD160}$$

$$\text{i Where: Hours Required} = \frac{\text{GMD608}}{\text{GMD152}} = 4\text{hrs/Litre}$$

<b>c.</b>	Total Contract Relevant Cost	GMD	GMD
	Material y	493,920	
	Material z	<u>56,320</u>	550,240
	Skilled Labour		<u>399,360</u>
			<u>949,600</u>

## QUESTION 6

### Payback Period

a.	Project A		Project B		Project C	
	Cash Flow	Cumulative ₦	Cash Flow ₦	Cumulative ₦	Cash Flow ₦	Cumulative ₦
Year						
0	(80,000)	(80,000)	(128,000)	(128,000)	(144,000)	(144,000)
1	40,000	(40,000)	24,000	(104,000)	52,000	(92,000)
2	16,000	(24,000)	32,000	(72,000)	66,000	(26,000)
3	16,000	(8,000)	40,000	(32,000)	26,000	-
4	8,000	-	16,000	(16,000)	28,000	
5	24,000		16,000		28,000	
6	12,800		40,000		20,000	

Payback:    Project A    =    4 years  
                  Project B    =    5 Years  
                  Project C    =    3 years

### b. Reasons why payback method is widely used.

- i. It is easily understood by all categories of managerial staff.
- ii. It favours quick returns projects which may produce faster growth for the firm and enhance liquidity.
- iii. It provides management with the summary of when the initial investment would be recouped.
- iv. It affords the management choice of projects with quickest payback which tends to minimize time related risk.
- v. It is objective, since it uses project cash flows rather than accounting profits.
- vi. It is appropriate in situations where risky investments are made in uncertain markets.
- vii. The short-term approach typical by the PBP method reduces that possibility of loss through obsolescence.
- viii. It is most suitable when the future is very uncertain.
- ix. It gives an induction to the prospective investors specifying when their finds are likely to be repaid.
- x. A company is compelled to invest in projects having shortest PBP in the case of capital rationing.