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

PART III EXAMINATIONS – SEPTEMBER 2021

COST ACCOUNTING

Time Allowed: 3 hours

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

1. The basic users of cost accounting reports are
   A. Financial Analyst and Financial Institution
   B. Cost Accountant and Tax Authorities
   C. Contractors and Engineers
   D. Suppliers and Customers
   E. Shareholders and management.

2. Cost accounting is useful for
   A. Anyone using scarce resources
   B. All profit seeking concerns provided they are not subject to perfect competition
   C. All industrial concerns, whether in the private sector or public sector, but not for service organisations like banks or insurance companies
   D. Only industrial concerns in the private sector since only they wish to maximise profits
   E. Only industrial concerns using activity based costing

3. Which of the following is **NOT** a characteristic of cost?
   A. It may vary with time, volume, firm, method or purpose
   B. It may be ascertained in different ways by different persons
   C. It is a flexible concept
   D. It does not represent the same contents under every situation
   E. Ascertainment of profitability of activities carried out

Use the following information to answer questions 4 and 5

A firm earns a profit of ₦60,000. The total contribution amounted to ₦90,000, while the variable cost for the period is ₦220,000.

4. The fixed cost for the period is
   A. ₦30,000
   B. ₦70,000
   C. ₦110,000
   D. ₦150,000
   E. ₦280,000

5. Determine the sales value of the firm
   A. ₦130,000
   B. ₦150,000
   C. ₦280,000
   D. ₦310,000
   E. ₦370,000

6. The fundamental and important method of classification of costs according to traceability is divided into........... and ....
   A. Direct and Indirect Cost
   B. Fixed and Variable Cost
   C. Controllable and Uncontrollable Cost
   D. Step and Mixed Cost
   E. Traceable and Non-Traceable Cost

7. Which of the following methods of pricing issues are close to current economic values?
   A. Last-In-First-Out
   B. First-In-First-Out
   C. Replacement price
   D. Weighted average price
   E. Next-in-First-Out

8. Which of the following is part of continuous inventory count?
   A. Annual inventory taking
   B. ABC analysis inventory system
   C. Periodic inventory system
   D. Capital inventory system
   E. Perpetual inventory system

9. Which of the following methods of wages payment should be used for indirect workers?
   A. Rowan Plan
   B. Differential Piece Rate Plan
   C. Halsey Plan
   D. Gantt's Task Plan
   E. Bonus Plan

10. Cost of idle time arising due to non-availability of raw materials is
   A. Charged to costing profit or loss
   B. Charged to factory overhead
   C. Recovered by inflating the wage rate
   D. Charged to the beginning of the period
   E. Recovered at the end of the period

11. In a job process where standard time is 8 hours, actual time taken is 6 hours and the time rate is ₦200 per hour. What is the total wages under Halsey Premium Plan?
A. ₦1,800
B. ₦1,600
C. ₦1,400
D. ₦1,200
E. ₦1,000

12. Which of the following is **NOT** an objective of time booking?
A. To ascertain the labour cost of a job, order or process
B. To ascertain the cost of idle time
C. To ascertain the cost of capital investment on labour basis
D. To control labour cost by comparing actual time spent with standard time allowed
E. To provide the basis of apportioning overhead where overhead is based on time spent

13. The comparative assessment of relative worth of jobs in a job hierarchy of an organisation on the basis of nature and requirement of different factors required to perform various jobs is
A. Job Merit
B. Job Rating
C. Job Analysis
D. Job Evaluation
E. Job Specification

14. Which of the following is a method of absorption of factory overheads in an organisation that produces a uniform type of product?
A. Percentage of direct wages
B. Direct labour hour rate
C. Machine hour rate
D. A rate per unit of output
E. Percentage of work done

15. When the amount of under or over-absorption is significant, it should be disposed-off by
A. Transferring to costing profit or loss
B. The use of supplementary rates
C. Carrying over as deferred charge to the next accounting year
D. The amount of over absorption will be written off cost
E. The comprehensive overheads is taken over

16. The following are the basis of apportionment of overhead of service cost centre, **EXCEPT** the number of
A. Employees or total wages bill
B. Labour hours or machine hours
C. Inspection hours or time worked
D. Purchase orders
E. Jobs done and carried out

17. Badejah operates an integral cost and financial accounting system. The accounting entries for an issue of direct materials to production would be
A. DR Cost of Sales Account - CR Finished Goods Control Account
B. DR Work-in-Progress Account- CR Finished Goods Control Account
C. DR Work-in-Progress Account -CR Stores Control Account
D. DR Finished Goods Control Account- CR Work-in-Progress Account
E. DR Stores Control Account -CR Work-in-Progress Account

18. The use of the same costing principles and practices by several undertakings is known as
A. Uniform costing
B. Job costing
C. Batch costing
D. Process costing
E. Contract costing

19. Which of the following is **NOT** an example of where unit costing is applicable?
A. Collieries
B. Quarries
C. Brick-making
D. Breweries
E. Book publishing

20. An essential feature of batch costing is
A. The production is continuous
B. The product is homogeneous
C. Each batch is treated as a cost unit
D. The processes are standardised
E. Costs are collected product-wise

21. Where a contract is 40% completed, amount of profit to be credited will be
A. The amount of profit estimated
B. 40% of the estimated profit
C. A third of the notional profit multiplied by cash ratio

D. Estimated profit at work certified and cash ratio
E. Estimated profit at cash ratio and uncertified work

22. In process costing, cost per unit increases due to
A. Abnormal loss
B. Abnormal gain
C. Normal loss
D. Normal gain
E. Seasonal gain

23. The cost attributable to cost units on the basis of benefit received from indirect activities is called
A. Operating costing
B. Activity based costing
C. Target costing
D. Uniform costing
E. Unit costing

24. In a "Make or Buy" decision, which of the following factors will ultimately prevail?
A. Return on investments
B. Management decision
C. Incremental revenue
D. Key limiting factor
E. Net profit/loss

25. Which of the following is **NOT** a sunk cost?
A. Book values of an existing fixed asset.
B. Cost of new plant to be purchased
C. Assets with no realisable value
D. Cost of a resource acquired in the past
E. Depreciation of old machines purchased

26. The difference between actual sales and breakeven sales is
A. Margin of safety
B. Margin of best fit
C. Contribution
D. Margin of volume
E. Margin of cost

27. Basic standard is established for a
A. Short period
B. Current period
C. Indefinite period
D. No period

E. Medium period

28. Which of the following is **NOT** a benefit of performing post-implementation audits of capital budgeting decisions?
A. It aims to compare the actual performance of the investment projects
B. It attempt to encourage more thorough and realistic appraisals of future investment projects
C. It aims to necessitate the appointment of the investment project manager
D. It aims to facilitate major overhauls of ongoing investment projects
E. It aims to seek an improvement in quality and cohesion

29. Which of the following is **NOT** a common measure of investment appraisal techniques?
A. Net Present Value
B. Annual Rate of Return
C. Internal Rate of Return
D. Accounting Rate of Return
E. Pay Back Period

30. A set of concepts and tools for getting all employees focused on continuous improvement in the eyes of the customer is called
A. Automated Production Technology
B. Kaizen Costing
C. Just-in-Time Technology
D. Planned Based Budgeting System
E. Total Quality Management

SECTION A: PART II SHORT ANSWER QUESTIONS (20 MARKS)

ATTEMPT ALL QUESTIONS

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

1. Charging of overheads to cost units is known as..............

2. Cost of personnel department is apportioned to different departments on the number of ....

3. The clause in a contract which provides that under certain specific conditions, the contract sum will be increased appropriately is known as.................

4. In contract costing, work-in-progress certified is valued based on .... and uncertified work is valued at ....

5. The excess of anticipated loss over actual loss in a process is called ....

6. The difference between sales and variable cost is known as ....

7. A system of book keeping in which the cost accounts are distinct from financial accounts, the two sets of accounts being kept continuously in agreement by the use of control accounts or made easily reconcilable by other means is called ....

8. A cost which has both fixed and variable elements is referred to as ....

9. The process used by companies to improve their bottom-line through a systematic downward review of expenses is known as ....

10. A document used in labour costing to record for each worker in respect of time spent by him on each job during the day is known as .

11. The portion of the cost which has been consumed during the current accounting period and does not contribute to the revenue of the organisation is called ....

12. The statement in which the difference between financial accounting and cost accounting can be compared using the conformity to an existing status and requirement is known as ....

13. A responsibility centre for which costs are accumulated is termed .....

14. The cost which can be influenced by the action of a specific member of an undertaking at a given level of authority can be defined as ....

15. The cost of converting raw materials into finished products which is the aggregate of direct labour cost, direct expenses and production overhead is called ....

16. A responsibility centre for which revenue and variable costs are accumulated is termed ....

17. An absorption rate used throughout a factory and for all jobs and units of output irrespective of the department in which they were produced is known as ....

18. A system of justifying all items of cost in alignment with budget before they are incurred is known as ....

19. The cost of production which are not traceable to production units are known as ....

20. An estimate which serves as a device for planning and controlling of the sources and uses of the liquid assets of an entity to ensure their availability is known as ....

SECTION B: ATTEMPT ANY FOUR QUESTIONS (50 MARKS)

QUESTION 1

The ICWA defines cost accounting as ''the process of accounting for cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units''.

Required:

a. State **FIVE** differences between cost accounting and financial accounting. (7½ Marks)

b. Explain briefly **FIVE** factors to be considered when installing a good cost accounting system. (5 Marks)

(Total 12½ Marks)

QUESTION 2

You have just been employed as the bookkeeping officer in Tastanet Manufacturing Limited a company that produces plastic and fibre toys.

The following information relates to the books of accounts of the company

Cost Accounts

	Le'000
Opening inventory of raw materials	3,500
Closing inventory of raw materials	4,200
Opening inventory of work-in-progress	4,900
Closing inventory of work-in-progress	5,600
Opening inventory of finished goods	6,300
Closing inventory of finished goods	7,000
Factory overheads	7,000
Office & administrative overheads	7,700
Selling & distribution overheads	8,400
Net Loss	1,000

Financial Accounts

	Le'000
Opening inventory of raw materials	3,150
Closing inventory of raw materials	3,780
Opening inventory of work-in-progress	5,600
Closing inventory of work-in-progress	6,300
Opening inventory of finished goods	6,650
Closing inventory of finished goods	7,420
Factory overheads	8,400
Office & administrative overheads	7,000
Selling & distribution overheads	7,400
Interest on investment	700
Bad debt written off	1,050
Rent (credit)	1,350
Transfer fees received	750
Legal fees charges	480
Loss on sales of machine	500
Income tax paid	420
Preliminary expenses written off	550
Store adjustments (credit)	1,260

Required:

a. State **FIVE** reasons for the differences in cost accounts and financial accounts. (2½ Marks)

b. Prepare a statement reconciling the net loss of cost account with a net profit of Le 630,000 in the financial accounts (10 Marks)

(Total 12½ Marks)

QUESTION 3

Hubby Golden Transport Services Limited owns a fleet of 10 trucks each costing ₦900,000. The company has employed one manager Mr. Shukete who is paid ₦100,000 per month, an accountant Ms. Alomaja who gets ₦50,000 per month and Supervisor Mr. Zack Kokobi who is on a salary of ₦20,000 per month.

Each of the trucks are insured at 2% of cost per annum, Kober Local Government imposed a monthly levy of ₦15,600 per truck while Drivers' Union fees borne by the company is ₦1,200 each month.

Other expenses are as follows:
- Driver's salary per month - ₦15,000 each
- Truck Cleaner's salary per month is ₦10,000 each for 5 cleaners who take care of 2 trucks each.
- Mechanic salary's per annum is ₦360,000
- Repairs and maintenance – ₦180,000 per year
- Diesel consumption – 3 kilometres per litre @ ₦90 per litre

Other information provided include:

(i) The estimated useful life of the trucks is 5 years

(ii) Distance travelled by each truck per day is 200 kilometres

(iii) Effectives period of work per month is 25 days

(iv) The truck has a normal capacity of 100 tonnes.

Required:

a. Prepare an operating statement per month (10½ Marks)

b. Calculate the cost per tonne (1 Mark)

c. Calculate the cost per kilometres (1 Mark)

(Total 12½ Marks)

QUESTION 4

a. List **FIVE** broad types of standards (2½ Marks)

b. OGILVY Limited provides the following different and unique case scenario:

   i. Budgeted production – 4,000 units. The product requires 5 hours to produce. In July, 2017; 24 effective working days of 8 hours a day, 3,600 units of the product were produced. The company employs 100 workers in the production department to produce the product.

   Calculate Efficiency Ratio, Activity Ratio and Capacity Ratio. (6 Marks)

   ii. When Activity Ratio = 90% and Efficiency Ratio = 96%.

   Calculate Capacity Ratio. (2 Marks)

   iii. When Activity Ratio = 96% and Capacity Ratio = 93.75%.

   Calculate Efficiency Ratio. (2 Marks)

(Total 12½ Marks)

QUESTION 5

Pob-Babs Nigeria Limited has the capacity to produce 50,000 units of their major product called "LeePee" per month. The company currently plans to produce and sell 40,000 units of the product monthly for ₦1,500 each.

The cost of production per unit is as follows:

	₦
Direct Materials	380:00
Direct Wages	255:00
Direct Expenses	165:00
Variable Factory Overheads	100:00
Fixed Factory Overheads	50:00
Variable Selling Expenses	25:00
Fixed Administrative Expenses	50:00
	1,025:00

Note Variable selling expenses is the cost of delivery

Required:

a. Sapata Enterprises places a special order of 6,000 units of LeePee at ₦850 per unit from Pro-Babs instead of the normal price of ₦1,500. Should Pob-Babs Nigeria Limited accept the offer? (7½ Marks)

b. If the answer to (a) above is **NO**, what is the minimum price the company should accept for the offer? (5 Marks)

(Total 12½Marks)

QUESTION 6

a. Obojoh Enterprises furnishes you with the following information relating to half year ending 30th June 2019.

Fixed Expenses	-	₦750,000
Sales	-	₦2,000,000
Profit	-	₦500,000

During the second half of the same year, the firm has projected a loss of ₦100,000.

You are required to calculate:

i. Contribution margin ratio and breakeven point (4 Marks)

ii. Margin of safety for the period ending 30th June 2019 (2 Marks)

iii. Expected sales volume for second half of the year if selling price and fixed expenses remain unchanged in the second half of the year (2 Marks)

iv. The breakeven point and margin of safety for the year ended 31st December 2019. (2 Marks)

b. State **FIVE** uses of breakeven analysis (2½ Marks)

(Total 12½ Marks)

SOLUTION TO QUESTIONS

Multiple Choice Questions

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

Workings

3. Contribution = Fixed Cost + Profit
 ₦90,000 = Fixed Cost + ₦60,000
 Fixed Cost = ₦90,000 – ₦60,000
 Fixed Cost = ₦*30,000 (C)*

4. Contribution = Sales – Variable Cost

₦90,000 = Sales – ₦220,000

Sales = ₦90,000 + ₦220,000

Sales = ₦*310,000 (C)*

11. Calculation of Total Pay = (C)

Time Allowed (a)	8 hours
Time Taken (b)	6 hours
Time Saved (c = a – b)	2 hours
Hourly Rate (d)	N200
Basic Pay (e = b X d)	₦1,200
Bonus Pay (½ X TS X HR) (f= ½ X c X d)	₦200
Total Pay (g = e + f)	₦1,400

SHORT ANSWER QUESTIONS

1. Absorption
2. Employees
3. Escalation clause
4. Contract price and cost *½ Each*
5. Abnormal gain
6. Contribution
7. Non-integral/Non-integrated/Interlocking System
8. Mixed Cost/Semi-Variable Cost/Semi-Fixed Cost
9. Cost Reduction
10. Daily Time Sheet/Card
11. Sunk Cost
12. Reconciliation
13. Cost centre
14. Controllable Cost
15. Conversion Cost / Production Cost
16. Contribution Centre
17. Blanket Absorption Rate
18. Cost Control
19. Overhead/Indirect Cost
20. Cash Budget

ESSAY QUESTIONS

QUESTION 1

a. Differences between Cost Accounting and Financial Accounting

S/N	AREAS OF DIFFERENCE	FINANCIAL ACCOUNTING	COST ACCOUNTING
1.	USERS	Information are meant for both Internal Users e.g. Management, Employees etc. and External Users e.g. Inventors, Banks etc.	Information are meant for Internal Users only e.g. Management, Employees etc.
2.	OBJECTIVES	The objectives of preparing financial accounting information is to establish the profitability and financial position of an enterprise	The objectives of cost accounting information is to help management in planning, controlling, evaluating and decision making
3.	TIME FOCUS	The focus of financial accounting is purely historical	The focus of cost accounting is futuristic because the accountant cannot just assume that what happened in the past will exactly be the same in the future when providing relevant information for planning purposes to management.
4.	REGULATION	a. Professional requirements The preparation of financial accounting is governed by generally accepted accounting principles and standards such as IAS, IFRS, concepts and conventions etc. b. Statutory requirements The preparation of financial accounting is governed or guided by the provisions of the laws such as CAMA, BOFIA etc.	a. Professional requirements The preparation of cost accounting is not governed by any standard b. Statutory requirements The preparation of cost accounting is not governed by any statute, it is subject to the specific requirements of each business organisation

5.	REPORTING TIME	Financial accounting information is always prepared at fixed periods of 3, 6, 12 or 18 months as the case may be	Cost accounting information/statement is prepared at any point in time as required by the management.
6.	APPROXIMATION AND ESTIMATION	In the reporting of Financial Accounting, approximation and estimation is not permitted as Management must account to the last value.	In the preparation of Cost Accounting Information approximation and estimation of values are allowed with some degree of tolerance
7.	DECISION MAKING	Financial accounts, being historical, are of limited use in decision making	Cost accounts, being current, are basically designed to facilitate decision making
8.	MONETARY TERMS	Financial accounting information is basically expressed in monetary terms.	Cost accounting information gives preference to units, quantities, volume apart from the common denomination of money.
9.	AUDIT	Financial accounting information is subject to independent statutory audit	cost accounting information is not subject to statutory audit
10.	VOLUME OF INFORMATION	Financial accounting represents a summary of the entire financial transaction that took place within the period of 12 or 18 months. As a result of this, essential information is usually omitted especially as it relates to limited segment of the organisation	Cost accounting represents segmental information designed principally to generate adequate information on all aspects of the organisation.
11.	FOCUS OF REPORTING	The focus of financial accounting is for the totality of the business.	The focus of cost accounting is usually production- or service-based

1½ mark per point Any 5 Points Max of 7½ Marks
{½ each for area of difference, accurate comparison of cost accounting and financial accounting}

b. Factors to be considered when installing a good cost accounting system.

i. The nature of the business
ii. The designer should consider the objective of costing system whether to fix selling price or control cost or both.
iii. The organizational structure of the business
iv. Technical aspects should be studied thoroughly by the designer
v. The size and layout of the organisation should be studied
vi. Existing methods and procedures for the purchases, receipts, inspection, storage, issue, return and transfer of materials, work-in-progress, finished goods and inventory should be studied
vii. Existing methods of wages payment
viii. Various forms to be used by costing system should be standardized as far as possible.
ix. The degree of accuracy desired should be determined
x. The system should be easy to understand and simple to operate
xi. The system should be economical to install and operate
xii. The system should be flexible to adopt the changing requirements of the business
xiii. The extent of details in which the cost information is required should be determined
xiv. The various fields where cost control is to be exercised should be determined

1 mark per point
Max of 5 Marks
(Total: 12 ½ Marks)

QUESTION 2

a. Reasons for the differences in cost accounts and financial accounts
i. Under absorption of overheads
ii. Over absorption of overheads
iii. Different bases for valuation of inventory
iv. Different methods of depreciation
v. Items included only in financial accounts
vi. Items included only in cost accounts (notional expenses)

½ mark per point
Max of 2½ Marks

Tastanet Manufacturing Limited
Reconciliation Statement

Details	Le	Le
Net Loss as per Cost Account		½ (1,000,000)
Add: items having the effect of higher profit in financial account:		
Over-valuation of opening inventory raw materials (3,500,000 – 3,150,000)	½ 350,000	
Under-valuation of closing inventory of work-in-progress (6,300,000 – 5,600,000)	½ 700,000	
Under-valuation of closing inventory of finished goods (7,420,000 – 7,000,000)	½ 420,000	
Over-absorption of office & Admin overheads (7,700,000 – 7,000,000)	½ 700,000	
Over-absorption of selling & distribution overheads (8,400,000 – 7,400,000)	½ 1,000,000	3,170,000
Add: Income Excluded for Cost Accounts:		
Interest on investment	½ 700,000	
Rent received	½ 1,350,000	
Transfer fees received	½ 750,000	
Store adjustments	½ 1,260,000	4,060,000
Add: items having the effect of lower profit in cost account:		
Under-valuation of opening inventory of work-in-progress (5,600,000 – 4,900,000)	½ 700,000	
Under-valuation of opening inventory of finished goods (6,650,000 – 6,300,000)	½ 350,000	
Over-valuation of closing inventory raw materials (4,200,000 – 3,780,000)	½ 420,000	
Under-absorption of factory overheads (8,400,000 – 7,000,000)	½ 1,400,000	(2,870,000)
Less: Expenses Excluded for Cost Accounts:		
Bad debts written off	½ 1,050,000	

Income tax paid	½ 420,000	
Preliminary expenses written off	½ 550,000	
Legal fees charges	½ 480,000	
Loss on sales of machine	½ 500,000	
Net Profit as per financial accounts		½ 630,000

20 ticks for 10 Marks
½ mark per tick
(Total: 12 ½ Marks)

QUESTION 3

a)

Hubby Golden Transport Services Limited {½}

Operating Statement per Month

Particulars	₦
Depreciation	150,000{½}
Drivers salary	150,000{½}
Truck cleaner's salary	50,000{½}
Diesel consumption	150,000{½}
Repair & Maintenance	15,000{½}
Insurance	15,000{½}
Local Government Levy	1,300{½}
Union Fees	1,200{½}
Manager's salary	100,000{½}
Accountant's salary	50,000{½}
Supervisor's salary	20,000{½}
Mechanic's salary	30,000{½}
Operating Cost per month	732,500{½}

a. Cost per tonne = ₦732,500 ÷ 500,000 Tonnes = ₦1:465 per Tonne {½}
b. Cost per kilometre = ₦732,500 ÷ 5,000 Kilometres = ₦146:50 per Kilometre {½}

WORKINGS

1. Depreciation = (₦900,000 X 10 Trucks) ÷ (12 months x 5 years) = ₦150,000 {½}

2. Driver's Salary = ₦15,000 x 10 drivers = ₦150,000
{½}
3. Truck cleaner's salary = ₦10,000 x 5 cleaners = ₦50,000
{½}
4. Diesel consumption = (200km÷3km) X 25 days X ₦90 = ₦150,000
{½}
5. Repairs & Maintenance Cost = ₦180,000 ÷ 12 months = ₦15,000
{½}
6. Insurance = 2% X (₦900,000 X 10 trucks) ÷ 12 months = ₦15,000
{½}
7. Mechanic's Salary = N360,000 ÷ 12 months = 30,000
{½}
8. Total Kilometres per month = 200 kilometres X 25 days = 5,000 kilometres {½}
9. Total Tonnes per month = 200 kilometres X 25 days 100 Tonnes= 500,000 Tonnes

{½}

25 ticks for 12 ½ Marks
½ mark per tick
(Total: 12 ½ Marks)

QUESTION 4

a. Types of Standards
   i. Ideal Standards
   ii. Attainable Standards
   iii. Loose Standards
   iv. Current Standards
   v. Basic Standards

½ mark per point
Max of 2½ Marks

b. OGILVY Limited
   i) Calculation of Activity Ratio

$$\text{Efficiency Ratio} = \frac{SH_{BOAO}}{AH} \times 100\% \quad \{½\}$$

$$= \frac{5 \times 3{,}600}{19{,}200} \times 100\% \quad \{½\}$$

$$= \underline{93.75\%} \quad \{1\}$$ *2 Marks*

Activity Ratio = $\frac{SH_{BOAO}}{BH}$ X 100% {½}

= $\frac{5 \times 3{,}600}{20{,}000}$ X 100% {½} = 90% {1} *2 Marks*

Capacity Ratio = $\frac{AH}{BH}$ X 100% {½}

= $\frac{19{,}000}{20{,}000}$ X 100% {½} = 96% {1} *2 Marks*

ii. Capacity Ratio = $\frac{\text{Activity Ratio}}{\text{Efficiency ratio}}$ X 100% {½}

= $\frac{90}{96}$ X 100% {½} = 93.75% {1} 2 Marks

iii. Efficiency Ratio = $\frac{\text{Activity Ratio}}{\text{Capacity ratio}}$ X 100% {½}

= $\frac{96}{93.75}$ X 100% {½} = 102.4% {1} 2 Marks

(Total: 12 ½ Marks)

QUESTION 5

a. Calculation of Relevant Cost and Contribution for the special order of 6,000 units at N850 per unit

	Unit Cost		6,000 units
	₦		₦
Direct Materials (₦380 x 6,000)	380:00{1}		2,280,000:00{1}
Direct Wages (₦255 x 6,000)	255:00{1}		1,530,000:00{1}
Direct Expenses (₦165 x 6,000)	165:00{1}		990,000:00{1}
Variable Factory Overheads (₦100 x 6,000)	100:00{1}	OR	600,000:00{1}
	900:00{1}		5,400,000:00{1}
Special Offer (6,000 x ₦850)	850:00{1}		5,100,000:00{1}
Contribution	(50:00) {1}		(300,000:00){1}

Decision – the company should not accept the special order because it present a negative contribution of (₦300,000). {½ mark}

b. The minimum price the company should accept for the offer is the total variable cost per unit

	₦
Direct Materials	380:00 {1}
Direct Wages	255:00 {1}
Direct Expenses	165:00{1}
Variable Factory Overheads	100:00{1}
Total Variable Cost per unit	900:00{1}

(Total: 12 ½ Marks)

QUESTION 6

a. Obojoh Enterprises

Breakeven Analysis

i. Contribution margin ratio

Contribution = Fixed Cost + Profit {½}

= ₦750,000 + ₦500,000

Contribution = ₦1,250,000 {½}

Contribution Margin Ratio (CMR) = (Contribution ÷ Sales) x 100 {½}

= (1,250,000 ÷ 2,000,000) x 100

= 0.625 or 62.5% {½}

Breakeven Point Sales = (Fixed Cost ÷ CMR) {½}

= (₦750,000 ÷ 0.625)

= ₦1,200,000 {½}

ii. Margin of safety for the period ending 30th June 2019

Margin of Safety = Actual Sales – Breakeven Sales {½}

= ₦2,000,000 – ₦1,200,000

= ₦800,000 {½}

Alternative Solution

Margin of Safety = Profit ÷ CMR {½}

= ₦*500,000 ÷ 0.625*

= ₦*800,000* {½}

iii. Expected sales volume for second half of the year if selling price and fixed expenses remain unchanged in the second half of the year

Contribution = Fixed Cost – Loss {½}
= ₦750,000 – ₦100,000
Contribution = ₦650,000 {½}

Contribution Margin Ratio (CMR) = (Contribution ÷ Sales) x 100
= 0.625 or 62.5% as it was in the first half year

Sales = (Contribution ÷ CMR) {½}
= (₦650,000 ÷ 0.625)
= ₦1,040,000 {½}

iv. The breakeven point and margin of safety for the year ended 31st December 2019.

Contribution Margin Ratio will be the same because selling price not changed.
Therefore, CMR = 62.5%
The fixed expenses for the whole year is ₦1,500,000 (i.e. ₦750,000 for each half year)

Breakeven Point Sales = (Fixed Cost ÷ CMR) {½}
= (₦1,500,000 ÷ 0.625)
= ₦2,400,000 {½}

Margin of safety for the period year ended 31st December 2019
Margin of Safety = Actual Sales – Breakeven Sales {½}
= (₦2,000,000 + ₦1,040,000) – ₦2,400,000
= ₦640,000 {½}

b. Uses of Break-Even Analysis:

i. It helps in the determination of selling price which will give the desired profits.
ii. It helps in the fixation of sales volume to cover a given return on capital employed.
iii. It helps in forecasting costs and profit as a result of change in volume.
iv. It gives suggestions for shift in sales mix.

v. It helps in making inter-firm comparison of profitability.
vi. It helps in determination of costs and revenue at various levels of output.
vii. It is an aid in management decision-making (e.g., make or buy, introducing a product etc.), forecasting, long-term planning and maintaining profitability.
viii. It reveals business strength and profit earning capacity of a concern without much difficulty and effort.

½ mark per point maximum of 2 ½ marks

(Total: 12 ½ Marks)