



**THE INSTITUTE OF CHARTERED ACCOUNTANTS
OF NIGERIA**

PATHFINDER

MAY 2013 INTERMEDIATE

Question Papers

Suggested Solutions

Plus

Examiners' Reports

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FOREWORD

This issue of the **PATHFINDER** is published principally, in response to a growing demand for an aid to:

- (i) Candidates preparing to write future examinations of the Institute of Chartered Accountants of Nigeria (ICAN);
- (ii) Unsuccessful candidates in the identification of those areas in which they lost marks and need to improve their knowledge and presentation;
- (iii) Lecturers and students interested in acquisition of knowledge in the relevant subjects contained herein; and
- (iv) The profession; in improving pre-examinations and screening processes, and thus the professional performance of candidates.

The answers provided in this publication do not exhaust all possible alternative approaches to solving these questions. Efforts had been made to use the methods, which will save much of the scarce examination time. Also, in order to facilitate teaching, questions may be altered slightly so that some principles or application of them may be more clearly demonstrated.

It is hoped that the suggested answers will prove to be of tremendous assistance to students and those who assist them in their preparations for the Institute's Examinations.

NOTES

Although these suggested solutions have been published under the Institute's name, they do not represent the views of the Council of the Institute. The suggested solutions are entirely the responsibility of their authors and the Institute will not enter into any correspondence on them.

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THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

INTERMEDIATE EXAMINATIONS – MAY 2013

COSTING AND QUANTITATIVE TECHNIQUES

Time Allowed: 3 hours

SECTION A: PART I MULTIPLE-CHOICE QUESTIONS (20 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:

Use the following data to answer questions 1 and 2:

Unit selling price	₦500
Variable cost/unit	₦260
Fixed cost	₦52,000
Tax rate	40%

1. What is the break-even point?
 - A. 250 units
 - B. 218 units
 - C. 217 units
 - D. 215 units
 - E. 210 units
2. Determine the units that should be produced to achieve a target income after tax of ₦12,000.
 - A. 300 units
 - B. 266 units
 - C. 250 units
 - D. 247 units
 - E. 246 units

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3. Which of the following is **NOT** involved in the problems of interpretation of variances?
- A. Inflation
 - B. Opportunity cost of variance
 - C. Cost benefit analysis of variance
 - D. Shortage of materials in the store
 - E. Type of efficiency standard in operation
4. Which of the following is **NOT** a characteristic of customer's definition of product quality?
- A. Performance
 - B. Aesthetics
 - C. Durability
 - D. Empathy
 - E. Features
5. Under which of the following labour remuneration methods will direct labour cost always be a variable cost?
- A. Day rate
 - B. Hourly rate
 - C. Piece rate
 - D. Differential piece rate
 - E. Group bonus scheme
6. A contractor has just invited an Engineer to site for assessment. The Engineer's Certificate issued at the end of the day revealed the following:

	£
Cost of work to date	361,000
Cost of work not yet certified	40,000
Value of work certified	400,000

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What is the value of notional profit on the contract so far?

- A. 30,000
 - B. 43,000
 - C. 79,000
 - D. 321,000
 - E. 360,000
7. Successful implementation of Just-In-Time (JIT) does **NOT** require
- A. Elimination of non-value adding activities
 - B. A focus on continuous improvement
 - C. Persistent efforts to reduce inventory
 - D. A focus on improving quality of processes
 - E. High quality inputs from vendors
8. Activity-Based Costing focuses on causes of costs incurred which are otherwise known as
- A. Planning
 - B. Valuation
 - C. Estimation
 - D. Cost Driver
 - E. Prediction
9. Which of the following is **NOT** a benefit of budgeting?
- A. It establishes a system of control
 - B. It fulfils illegal reporting obligations
 - C. It is a starting point for strategic planning
 - D. It helps to coordinate the activities of the various departments
 - E. It reduces the level of budget padding
10. Technology is reducing costs within the supply chain by
- A. Reducing competition among alternative suppliers
 - B. Reducing the exchange of information within the value chain
 - C. Reducing the need to generate paper documents for purchase transactions
 - D. Delaying payment transactions
 - E. Increasing cost of acquisition of technology

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11. Marginal and Absorption costing produce the same net profit where
- A. First-In-First-Out valuation stock is used
 - B. First costs are not included
 - C. Overheads are spread over cost unit
 - D. Overheads are absorbed using standard cost
 - E. Opening and closing stock do not exist
12. The following data is available in connection with the fixed overheads of a factory for the month of March:

Budgeted production hours 40,000

Budgeted fixed production cost ~~£~~145,000

Actual hours worked 38,000

Standard hours for actual production 27,000

What was the fixed production overhead capacity variance for the month of March?

- A. ~~£~~7,250 (A)
 - B. ~~£~~7,250 (F)
 - C. ~~£~~39,875 (A)
 - D. ~~£~~39,875 (F)
 - E. ~~£~~42,362 (A)
13. An index number increases each year by 10% of its value in the previous year. If its value in 2000 was 170, its value in 2003 is closest to
- A. 224
 - B. 225
 - C. 226
 - D. 227
 - E. 228

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14. If $A = \{1, 2, 3, 4, 6\}$ the cardinality of set A is
- A. 1
 - B. 2
 - C. 3
 - D. 4
 - E. 5
15. A Linear Programming problem is based on the following assumptions **EXCEPT**
- A. Proportionality
 - B. Additivity
 - C. Equality
 - D. Continuity
 - E. Certainty
16. A manufacturing company is independently working on two separate jobs. If the probability that either of the jobs will be finished on time is 0.2, the probability that just one of the jobs will be finished on time will be
- A. 0.16
 - B. 0.32
 - C. 0.46
 - D. 0.52
 - E. 0.76
17. If A and B are two matrices, then $A+B = B + A$ is the statement of the
- A. Identity law
 - B. Associative law
 - C. Commutative law
 - D. Distributive law
 - E. Equality law
18. The beginning and end points of an activity are called events or
- A. Network
 - B. Routes
 - C. Links

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- D. Nodes
 - E. Activity arrows
19. A firm's profit from the sale of calculators is given by the function $\pi(x) = 500(x - 2)(12 - x)$ where x is the price (in Naira) at which the calculators are sold. The selling price which maximises the profit is then equal to
- A. ₦2
 - B. ₦5
 - C. ₦6
 - D. ₦7
 - E. ₦12
20. The policy where an en-masse replacement of items is made is known as
- A. Group policy
 - B. Individual policy
 - C. Ordinary policy
 - D. Maintenance policy
 - E. Company policy

SECTION A: PART II

SHORT-ANSWER QUESTIONS

(20 Marks)

ATTEMPT ALL QUESTIONS

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

1. The difference between sales value and the marginal cost of sales is known as
2. A cost technique which is the easiest and most certain way to increase profit in the short term is called
3. A group of managers composed to supervise and take responsibility for the budget setting process is known as

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Use the following data to answer questions 4 and 5:

In a period, 50,000 units of Product x were produced and sold, costs and revenues were

	₹
Sales	250,000
Production costs:	
Variable	87,500
Fixed	37,500
Selling and distribution overhead (fixed)	62,500

4. What is the contribution per unit of Product x?
5. Calculate the net profit.
6. An attempt to reflect more accurately, in product costs, those activities which influence the level of support overhead is called
7. Standard which is best suited for performance evaluation and which can positively influence employee's motivation is known to be
8. Discarded substances from production having no saleable value are called
9. The technique of investigating, comparing and evaluating a company's products, processes and or services against those of competitors or companies believed to be "best in class" is called
10. Costs incurred aimed at influencing customers to place orders are classified as
11. An incentive scheme in which employees receive a certain proportion of their company's profit for the year as an addition to normal wages is referred to as
12. A move towards zero inventory and an emphasis on perfect quality that is zero defects are features of
13. A standard Linear Programming problem with all constraints having "a greater than or equal to sign" is a problem.

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14. A firm has tendered proposals for two independent contracts A and B. If the probabilities of not getting the contracts are 0.4 and 0.2 respectively, then the probability of getting both contracts is
15. If $A = \begin{pmatrix} 2 & -2 \\ 3 & 2 \end{pmatrix}$ and $B = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$, then the value of BA is
16. Given that the value and price indices are 76.5% and 96.7% respectively, then the quantity index is
17. In Replacement Analysis, the point at which to seek the replacement of an item is the point.
18. If every element of set A is contained in set B, then set A is said to be a of set B.
19. In a transportation problem, method makes effective use of the cost information and yields a better initial solution than that obtained by the other method.
20. If total revenue equals total cost, the transaction whereas if marginal revenue equals marginal cost, then the

SECTION B: ATTEMPT ANY FOUR QUESTIONS (60 Marks)

SUBSECTION I: COSTING – ATTEMPT TWO QUESTIONS FROM THIS SUB-SECTION

QUESTION 1

Double Leave Limited operates a process which produces four refined products known as X, Y, Z, W. The joint costs of operating the process for Quarter 2 of 2012 were as follows:

	₹
Raw materials	750,000
Labour	240,120

Process overhead is absorbed by adding 25% of labour cost.

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The output of the refined products in Quarter 2 were as follows:

X	7,000 litres
Y	6,000 litres
Z	4,000 litres
W	1,000 litres

No stocks of refined product at the beginning of Quarter 2 and no work in progress but the following stocks were on hand at the end of the period:

X	300 litres
Y	200 litres
Z	800 litres
W	50 litres

There was no work in progress as at the end of Quarter 2.

Prices realised from sale per litre of products X, Y, Z and W were ~~N~~400, N900, N1,200, and ~~N~~2,010 respectively. These prices are expected to be maintained.

You are required to calculate

- Apportionment of joint costs. (12½ Marks)
- Cost of the closing stock, using the sales value as the basis of your calculation. (2½ Marks)
(Total 15 Marks)

QUESTION 2

Matito Manufacturing Company (MMC) Limited produces products A, B and C. Each product requires one kilogram of material but the standard times allowed for production of products A, B and C are 12 minutes, 15 minutes and 20 minutes respectively. The company has three operators: Joy, Glad and Hope who work on the production of A, B and C respectively. Joy, Glad and Hope are respectively issued 600kg, 400kg and 450kg for week 2. It is the company's policy that for

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every hour saved, bonus is paid at 40% of the basic rate of ₦2.40 per hour for the three employees.

The times used for completion of work assigned to the three employees are given below:

Joy 80 hours
Glad 70 hours
Hope 90 hours

The basic working week is 100 hours. When an employee completes the task issued to him for the week, he is not given additional material to work on but instead a general assignment is given and all hours spent on general assignment are paid for at 150% of the basic rate of ₦2.40.

The general assignment is regarded as fixed overhead and the payment is not regarded as part of wages cost for the purpose of calculating the cost of a product. Defective production units recorded per employee are Joy 20 units, Glad 24 units and Hope 30 units and are not regarded as loss.

You are required to calculate

- Bonus paid to each employee. (6 Marks)
- Total wages paid to each employee for week 2. (6 Marks)
- Wages cost of a completed good production unit of A, B and C. (3 Marks)
(Total 15 Marks)

QUESTION 3

Metals Nigeria Limited operates an interlocking financial and cost accounting system. The following relates to entries obtained from the Company's record:

Cost ledger opening Trial Balance

	₦	₦
Financial ledger control account		250,000
Stores ledger control account	50,000	
W.I.P. control account	75,000	
Finished goods control account	125,000	
	250,000	<u>250,000</u>

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The following information is available regarding the period's operations:

	N
Raw material purchased	500,000
Direct wages	340,000
Indirect wages	125,000
Stores issues – Production	285,000
- Factory maintenance	147,500
- Admin. maintenance	21,500
Production overheads absorbed	350,000
Admin. overheads absorbed	210,000
Selling and distribution overheads absorbed	215,000
Factory cost of finished goods	990,000
Cost of finished goods sold	1,415,000
Sales	1,700,000
Admin. Salaries	60,000
Selling and distribution salaries	120,000
Production expenses	85,000
Selling and distribution expenses	90,000
Admin. Expenses	125,000

You are required to prepare the

- a. Financial ledger control account showing all necessary ledger postings. (11 Marks)
 - b. Closing cost ledger Trial Balance. (4 Marks)
- (Total 15 Marks)**

QUESTION 4

Concrete Works Plc. is a construction company. Data relating to one of its contracts awarded to build a new petrol station at a contract price of N50 million is detailed below.

Work commenced on 1 July and at 31 December, the job was still on-going.

	N
Materials purchased	6,200,000
Wages paid	1,400,000
Plant purchased for the contract	1,270,000
Plant sent to site at valuation (1 July)	180,000
Value of work measured (to December)	8,600,000
Cash received	7,740,000

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You also ascertained the following:

	₦
Plant on site at 31 December (at valuation)	800,000
Materials on site used to date	140,000
Work completed but not measured	740,000

Plant is depreciated at 20% per annum.

You are required to:

- State **FIVE** characteristics of long-term contracts. (5 Marks)
- Prepare a contract account for the period. (5 Marks)
- Show the amount of profit or loss you consider should be taken to the statement of comprehensive income. (5 Marks)
Show all workings. (Total 15 Marks)

SUBSECTION II: QUANTITATIVE TECHNIQUES – ATTEMPT TWO QUESTIONS FROM THIS SUB-SECTION

QUESTION 5

The following data relate to a set of commodities used in a particular process:

Commodities	Base Price ₦	Quantity (units)	Period 1 price ₦	Quantity (units)
A	36	120	35	75
B	70	14	85	13
C	42	18	51	19
D	5	126	8	42
E	34	1140	100	1300

You are required to calculate the

- Fisher's Ideal Index. (11 Marks)
 - Marshall Edgeworth Price Index. (4 Marks)
- (Total 15 Marks)

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QUESTION 6

A market survey was carried out to determine the acceptability of different brands of table water produced by Hygienic Nigeria Limited. An analysis of responses from 200 people yielded the following result:

55 prefer brand A, 45 prefer brand B, 50 prefer brand C, 80 prefer brand A or brand B, 90 prefer brand A or C, 85 prefer brand B or C while 5 people prefer all the three brands.

The company is willing to develop a new brand D provided the ratio of the present brand to the total responses is less than half of the sampled population.

You are required to

- Draw the Euler-Venn diagram to represent the given information. (3 Marks)
 - Determine the total number of people that prefer the present brands A, B and C. (10 Marks)
 - Advise (with reason) the company whether it should embark upon the development of the new brand D. (2 Marks)
- (Total 15 Marks)**

QUESTION 7

Wasco Paint Manufacturing Company makes three types of paint: type X, type Y and type Z. The machine and labour hours required for the production of the paints are tabulated as follows:

	Type X	Type Y	Type Z
Machine hours	2	1	4
Labour hours	4	3	2

There are 400 machine hours and 600 labour hours available. The company makes a profit of ~~N~~400, ~~N~~600 and ~~N~~500 for type X, type Y and type Z paints respectively.

You are required to

- Formulate the Linear Programming problem from the information above. (5 Marks)
 - Use simplex method to obtain the optimal level of production. (10 Marks)
- (Total 15 Marks)**

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SOLUTIONS TO SECTION A

PART 1 - MULTIPLE CHOICE QUESTIONS

1. C
2. A
3. B
4. D
5. C
6. C
7. E
8. D
9. B
10. C
11. E
12. A
13. C
14. E
15. D
16. B
17. C
18. D
19. D
20. A

Workings

$$\begin{aligned} 1. \quad \text{BEP} &= \frac{\text{Fixed Cost}}{\text{Contribution/Unit}} = \frac{52,000}{500 - 260} = \frac{52,000}{240} \\ &= 217 \text{ Units} \quad \text{Option (C)} \end{aligned}$$

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2. Unit to Produce to give a Profit of ~~₹~~12,000

$$= \text{Fixed Cost} + \frac{(\text{Target}/(1 - \text{tax rate}))}{\text{Contribution/Unit}}$$

$$= 52,000 + \frac{(12,000/(1 - 0.4))}{240} = \frac{72,000}{240}$$

$$= 300 \text{ Units Option (A)}$$

3. Calculation of Notional Profit

	₹	₹
Value of work certified		400
Cost of work to date	361,000	
Less cost of work not yet certified	<u>40,000</u>	<u>321,000</u>
Notional profit		<u>79,000</u> Option (B)

13. For year 2000, we have 170

$$\therefore \text{For year 2001, we will have } \left(\frac{10}{100} \times 170 \right) + 170$$

$$= 17 + 170 = 187$$

$$\text{For year 2002, we will have } \frac{10}{100} \times 187 + 187 = 18.7 + 187 = 200.7$$

$$\text{For year 2003, we will have } \frac{10}{100} \times 205.7 + 205.7 = 20.57 + 205.7$$

$$= 226.27$$

$$= 227 \quad \text{Option (D)}$$

14. A = {1, 2, 3, 4, 6}

n(A) = 5 as the required cardinality

16. Pr (T) = 0.2, Pr (NT) = 0.8

$$\text{Pr (just one)} = \text{Pr (T)} \times \text{Pr (NT)} \text{ or } \text{Pr (NT)} \times \text{Pr (T)}$$

$$= 0.2 \times 0.8 + 0.8 \times 0.2$$

$$= 0.32 \quad \text{Option (B)}$$

19. $\Pi(x) = 500(x - 2)(12 - x)$

$$= 500(-x^2 + 14x - 24)$$

$$\frac{d\Pi}{dx} = 500(-2x + 14)$$

$$\text{At the turning point, } \frac{d\Pi}{dx} = 0$$

$$500(-2x + 14) = 0$$

$$-2x = -14$$

$$\therefore x = 7$$

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$\frac{d^2\Pi}{dx_2} = -1000 < 0$, then $x = 7$ gives the maximum profit Option
(D)

EXAMINERS' REPORT

The questions cover a good proportion of the syllabus.

All the candidates attempted this part of the paper. Performance was average as about half of the candidates scored 50% and above.

Candidates will do better if they

- i. Cover the syllabus more extensively
- ii. Read good quality texts
- iii. Familiarize themselves with past question papers

PART II – SHORT-ANSWER QUESTIONS

1. Contribution
2. Marginal Costing
3. Budget Committee
4. ₦3.25
5. ₦62,500
6. Activity-based costing
7. Attainable standard
8. Waste
9. Benchmarking
10. Selling Expenses
11. Profit Sharing Scheme
12. Just-in-time
13. Minimization
14. 0.48

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15. $\begin{pmatrix} 8 & 2 \\ 18 & 2 \end{pmatrix}$
16. 79.1%
17. Least cost
18. Subset
19. Vogel's approximation
20. Breaks even, profit will be maximum (in that order)

Workings

4.	Sales	250,000	₦
	Variable cost	87,500	
	Total contribution	162,500	
	Contribution/unit	Total contribution/Total goods sold	
		162,500/50,000	
		=	₦3.25

5.	Total contribution	162,500	₦
	Less fixed cost	(37,000)	
	Production		
	Selling & distribution	(62,500)	
	Net profit	<u>62,500</u>	

14. Pr (getting contract A) = 1 - 0.4 = 0.6
- Pr (getting contract B) = 1 - 0.2 = 0.8

$\therefore \text{Pr (getting both A and B)} = 0.6 \times 0.8 = 0.48$

$$15. \quad A = \begin{pmatrix} 2 & -2 \\ 3 & 2 \end{pmatrix} \quad B = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$$

$$BA = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix} \begin{pmatrix} 2 & -2 \\ 3 & 2 \end{pmatrix} = \begin{pmatrix} (1 \times 2) + (2 \times 3) & (1 \times -2) + (2 \times 2) \\ (3 \times 2) + (4 \times 3) & (3 \times -2) + (4 \times 2) \end{pmatrix}$$

$$= \begin{pmatrix} 2+6 & -2+4 \\ 6+12 & -6+8 \end{pmatrix} = \begin{pmatrix} 8 & 2 \\ 18 & 2 \end{pmatrix}$$

$$YI = QI \times PI$$

$$\therefore QI = \frac{YI}{PI} = \frac{76.5}{96.7} = 0.79$$

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EXAMINERS' REPORT

The questions cover a sizeable proportion of the syllabus. Virtually all the candidates attempted this part of the paper.

Performance was good, as about half of the candidates score 50% or above.

Improvement will come if candidates

- i. Improve on their knowledge of terminologies
- ii. Cover the entire syllabus more effectively

SOLUTIONS TO SECTION B

QUESTION 1

DOUBLE LEAVE LIMITED APPORTIONMENT OF JOINT COST JOINT COST FOR QUARTER 2

	N
Raw material	750,000
Labour	240,120
Process overhead 25% of labour	<u>60,030</u>
	<u>1,050,150</u>

Products	Units Produced	Market Value/Litre N	Total Value N'000	Appointment of joint cost N
X	7,000	400	<u>2,800</u> 15,010	x 1,050,150 = 195,897.40
Y	6,000	900	<u>5,400</u> 15,010	x 1,050,150 = 377,802.13
Z	4,000	1,200	<u>4,800</u> 15,010	x 1,050,150 = 335,824.12
W	1,000	<u>2,010</u>	<u>2,010</u> 15,010	x 1,050,150 = 140,626.35

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Cost Per litre			₦
X	=	$\frac{195,897.40}{7,000}$	= 27.99
Y	=	$\frac{377,802.13}{6,000}$	= 62.97
Z	=	$\frac{335,824.12}{4,000}$	= 83.96
W	=	$\frac{140,626.34}{1,000}$	= 140.63

VALUATION OF CLOSING STOCK

Product	Litres	Value ₦	Amount ₦
X	300	27.98	8,394
Y	200	62.97	12,594
Z	800	83.96	67,168
W	50	140.62	<u>7,031</u>
			<u>95,187</u>

EXAMINERS' REPORT

The question tests candidate's ability to apportion common costs under process costing and valuation of closing stock.

Few candidates, representing about 20% of the population, attempted the question.

Performance was very poor as only about 3% of the candidates who attempted the question, scored 50% and above.

Major pitfalls were as a result of

- i. Inability to compute apportionment
- ii. Wrong computation of cost for a litre of good production
- iii. Inaccurate calculation of closing stock figure
- iv. Poor presentation

It is recommended that candidates should

- i. Read wider with a better coverage of the syllabus
- ii. Understand the requirement of any question before attempting to solve it

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QUESTION 2

MATITO MANUFACTURING COMPANY LIMITED COMPUTATION OF BONUS TO EACH EMPLOYEE

	JOY	GLAD	HOPE
Completed units	600	400	450
Time required per unit	12 mins	15 mins	20 mins
Time required for completed			
Units (in hours)	120	100	150
Actual hours worked	80	70	90
Time saved (in hours)	<u>40</u>	<u>30</u>	<u>60</u>
Bonus paid for at 40% of ₦2.40 per hours saved	<u>₦38.40</u>	<u>₦28.80</u>	<u>₦57.60</u>

COMPUTATION OF TOTAL WAGES PAYABLE TO EACH EMPLOYEE

	JOY	GLAD	HOPE
Actual hours worked	80	70	90
Rate /hour	<u>₦2.40</u>	<u>₦2.40</u>	<u>₦2.40</u>
	<u>₦</u>	<u>₦</u>	<u>₦</u>
Wages for actual hours worked	192.00	168.00	216.00
Bonus	38.40	28.80	57.60
General assignment (Working Week 2)	<u>72.00</u>	<u>108.00</u>	<u>36.00</u>
	<u>302.4</u>	<u>304.8</u>	<u>309.6</u>

WAGES COST OF COMPLETED GOOD UNITS BY EACH EMPLOYEE

	JOY	GLAD	HOPE
Units produced	600	400	450
Less defective units	20	24	30
Completed good units	580	376	420
Wages paid for completed units	230.4	196.6	273.6
Unit cost	₦0.40K	₦0.52K	₦0.65K

WORKINGS ON GENERAL ASSIGNMENT HOUR – WEEK (2)

	JOY	GLAD	HOPE
Average working hour/week	100	100	100
Actual hours worked	80	70	90
General assignment hours	<u>20</u>	<u>30</u>	<u>10</u>
(150% of general assignment hours x rate per hour)	<u>₦72</u>	<u>₦108</u>	<u>₦36</u>

EXAMINERS' REPORT

The question tests candidates' ability to compute Labour Remuneration.

The question was fairly popular among candidates as about 60% of the entire population attempted the question.

Performance was poor as only about 20% of the candidates, who attempted the question, scored 50% or above.

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Common shortcomings are the candidates' inability to

- i. Determine the amount of time saved for the computation of bonus
- ii. Present information in tabular format

It is recommended that candidates should create more study time for improvement, preparation and subsequently enhanced performance.

QUESTION 3

(a)

METALS NIGERIA LIMITED Financial Ledger Control Account

	₦		₦
Sales	1,700,00	Balance b/f	250,000
Bal c/d	281,000	Purchases	500,000
		Wages	465,000
		Salaries	180,000
		Production Expenses	85,000
		Admin. Expenses	125,000
		Selling & Distribution Expenses	90,000
		Profit	286,000
	<u>1,981,000</u>		<u>1,981,000</u>

Stores Ledger Control Account

	₦		₦
Bal b/f	50,000	W.I.P	285,000
Purchases	500,000	Production overhead	147,500
		Admin overhead	21,500
		Bal c/d	96,000
	<u>550,000</u>		<u>550,000</u>

Finished Goods Control Account

	₦		₦
Bal b/f	125,000	Cost of sales	990,000
WIP	945,000	Bal c/f	80,000
	<u>1,070,000</u>		<u>1,070,000</u>

W. I. P Control Account

	₦		₦
Balance b/f	75,000	Finished goods control	945,000
Stores ledger	285,000	Bal c/d	105,000
Direct wages	340,000		
Production D/H	350,000		
	<u>1,050,000</u>		<u>1,050,000</u>

Admin. Overhead Control Account

	₦		₦
Admin. Expenses	125,000	Admin Overhead	210,000

PATHFINDER

Admin. Salaries	60,000	
Stores issues	21,500	
O/H Adjustment	<u>3,500</u>	
	<u>210,000</u>	<u>210,000</u>

Production Overhead Control Account

	₦		₦
Indirect wages	125,000	W.I.P	350,000
Factory maintenance	147,500	Overhead Adj. Account	7,500
Production expenses	<u>85,000</u>		
	<u>357,500</u>		<u>357,500</u>

Selling & Distribution Overhead Control Account

	₦		₦
Salaries	120,000	Absorbed	215,000
Expenses	90,000		
Overhead Adj. Account	<u>5,000</u>		
	<u>215,000</u>		<u>215,000</u>

Cost of Sales Account

	₦		₦
Admin.	210,000	Profit & Loss	1,415,000
Selling & Distribution	215,000		
F.G. Control account	<u>990,000</u>		
	<u>1,415,000</u>		<u>1,415,000</u>

Costing Profit & Loss

	₦		₦
Cost of sales	1,415,000	Sales	1,700,000
Profit	<u>286,000</u>	Overhead Adj.	<u>1,000</u>
	<u>1,701,000</u>		<u>1,701,000</u>

b) Cost Ledger Closing Trial Balance

	₦	₦
Financial Ledger Control Account		281,000
Stores Ledger Control Account	96,000	
Finished Goods Control Account	80,000	
W. I. P Control Account	<u>105,000</u>	
	<u>281,000</u>	<u>281,000</u>

EXAMINERS' REPORT

The question tests candidates' ability to draw up integrated and interlocking Ledger Accounts.

PATHFINDER

About 25% of the entire candidates attempted the question. Performance was very poor, less than 5% of those who attempted the question scored more than 50% of the marks.

Observed general pitfalls among the candidates include:

- i. Inability to appropriately post to the right sides of the ledger accounts
- ii. Inadequate understanding of the principles involved
- iii. Arithmetical errors
- iv. Accounts presented vertically instead of in 'T' format

It is recommended that candidates should

- i. Have more effective reading time
- ii. Improve on their understanding of the duality concept

QUESTION 4

(a)

- (i) It is a contract where construction work is relatively of long duration, usually more than a year.
- (ii) The work is usually constructional in nature.
- (iii) A formal contractual agreement is made between the contractor and the client.
- (iv) A long-term contract is often executed at a site away from the client's office.
- (v) A long-term contract includes clauses for "penalty" for delay in completion.
- (vi) Construction work is done according to client's specific requirements and design.
- (vii) Payments for job done under long-term contracts are usually based on approved value of work done.
- (viii) An amount called "retention fee" is usually withheld to cater for defects after completion.

PATHFINDER

b)

CONCRETE WORKS PLC. CONTRACT ACCOUNT FOR THE PERIOD 1ST JULY – 31ST OCTOBER

	₦'000		₦'000
Materials purchased	6,200	Plant c/f	800
Wages paid	1,400	Materials c/f	140
Plant	1,270	Work certified	7,208
Plant (see workings)	<u>18</u>	Work not yet certified (WIP)	<u>740</u>
	<u>8,888</u>		<u>8,888</u>
Cost of work certified	7,208	Value of work measured	8,600
Profit taken (workings)	835		
Profit not yet taken	<u>557</u>		
	<u>8,600</u>		<u>8,600</u>
Balance at 1 st January	-		
Plant b/f	800		
Materials b/d	140		

Workings

- Plant sent to site at valuation (1st July) ₦180,000
 Depreciation at 20% = 20% x ₦180,000 = ₦36,000
 $\frac{1}{2}$ year depreciation = ₦36,000 ÷ 2 = ₦18,000

- Calculation of profits

$$\frac{2}{3} \text{ of Apparent profit} \times \frac{\text{Cash received}}{\text{Work certified}}$$

$$\frac{2}{3} \times \frac{₦1,392,000}{₦8,600,000} \times \frac{₦7,740,000}{₦8,600,000} = ₦835,200$$

EXAMINERS' REPORT

The question tests the theoretical and technical ability of the candidates in relation to long-term contracts.

About 85% of the candidates attempted the question. Performance was fair as about half of the candidates, who attempted the question, scored 50% or above.

Candidates' common shortcoming was candidates' inability to compute the profit to be taken during the years.

PATHFINDER

It is recommended that

- i. Candidates should acquaint themselves with more relevant texts
- ii. Read the relevant ICAN Pathfinders diligently
- iii. Practise with sufficient past questions

QUESTION 5

Commodity	P ₀	q ₀	P _n	q _n	P ₀ q ₀	P ₀ q _n	P _n q _n	P ₀ q _n
A	36	120	35	75	4320	4200	2625	2700
B	70	14	85	13	980	1190	1105	910
C	42	18	51	19	756	918	969	798
D	5	126	8	42	630	1008	336	210
E	34	11400	100	1300	38760	114000	130000	44200
	-	-	-	-	45446	121316	135035	48818

$$\begin{aligned}
 \text{a) } L_{PI} &= \frac{\sum P_n q_0}{\sum P_0 q_0} \times 100 \\
 &= \frac{121316}{45446} \times 100 \\
 &= \underline{266.95\%}
 \end{aligned}$$

$$\begin{aligned}
 P_{PI} &= \frac{\sum P_n q_n}{\sum P_0 q_n} \times 100 \\
 &= \frac{135035}{48818} \times 100 \\
 &= \underline{276.61\%}
 \end{aligned}$$

$$\therefore FI = \sqrt{LPI \times PPI} = \sqrt{266.95 \times 276.61} = \underline{271.74\%}$$

$$\begin{aligned}
 \text{b) } \text{Marshall Edgeworth's Index} &= \frac{\sum P_n (q_0 + q_n)}{\sum P_0 (q_0 + q_n)} \times 100 \\
 &= \frac{35(195) + 85(27) + 51(37) + 8(168) + 100(2440)}{36(165) + 70(27) + 42(37) + 5(168) + 34(2440)} \times 100 \\
 &= \frac{6825 + 2295 + 1887 + 1344 + 244000}{7020 + 1890 + 1554 + 840 + 82960} \times 100 \\
 &= \frac{256351}{94264} \times 100 \\
 &= \underline{271.95\%}
 \end{aligned}$$

PATHFINDER

EXAMINERS' REPORT

The question tests candidates' ability to construct Price Indices.

The topic appears very popular among the candidates as about 95% of them attempted the question. Performance appears to be above average. About half of the candidates who attempted the question scored 60% or above.

Commonest pitfalls in more cases include the following:

- i. Candidates' inability to construct Marshall Edgeworth Price Index
- ii. Inability of candidates to express indices to their appropriate units e.g. in percentage

It is recommended that candidates should

- i. Have a good mastery of relevant formula in order to do well in this paper
- ii. Devote more quality study time
- iii. Practise past questions

QUESTION 6

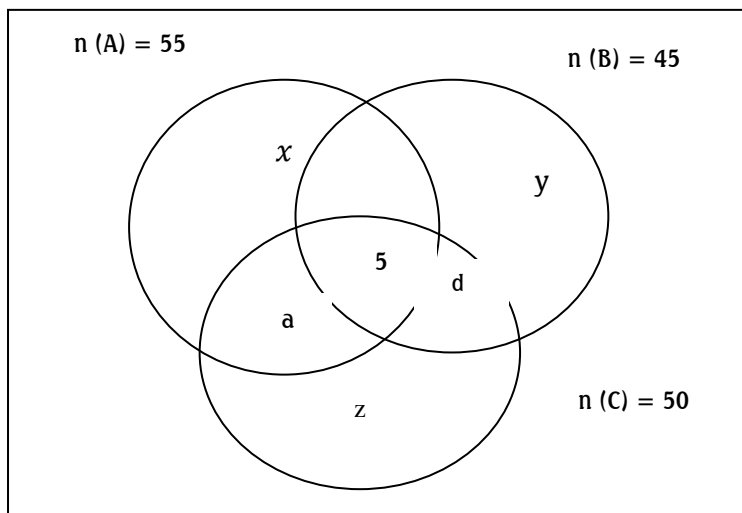
HYGIENIC NIGERIA LIMITED

(a) Let A represent brand A

B " " B
C " " C

The Euler-Venn diagram is as shown below

$$n(U) = 200$$



PATHFINDER

(b) $n(A \text{ or } B) = n(A \cup B) = n(A) + n(B) - n(A \cap B)$

$$80 = 55 + 45 - n(A \cap B)$$

$$\therefore n(A \cap B) = 100 - 80 = 20$$

$$n(A \text{ or } C) = n(A \cup C) = n(A) + n(C) - n(A \cap C)$$

$$90 = 55 + 50 - n(A \cap C)$$

$$n(A \cap C) = 105 - 90 = 15$$

$$n(B \text{ or } C) = n(B \cup C) = n(B) + n(C) - n(B \cap C)$$

$$85 = 45 + 50 - n(B \cap C)$$

$$\therefore n(B \cap C) = 95 - 85 = 10$$

As shown on the Euler-Venn diagram,

$n(A \cap B)$ only = b, $n(A \cap C)$ only = a

$(B \cap C)$ only = d

$$\therefore b + 5 = 20 \rightarrow b = 15$$

$$a + b = 15 \rightarrow a = 10$$

$$d + 5 = 10 \rightarrow d = 5$$

$n(A \text{ only}) = x$, $n(B \text{ only}) = y$ and $n(C \text{ only}) = z$

$$\therefore x + b + 5 + a = 55$$

$$\therefore a + 15 + 5 + 10 = 55 \rightarrow x = 55 - 30$$

Similarly, $y = 45 - (b + 5 + d) \rightarrow y = 45 - 25 = 20$

$$z = 50 - (a + b + d) \rightarrow z = 50 - 20 = 30$$

(iii) Total number of people that prefer the present brands
 $= 25 + 20 + 30 + 10 + 15 + 5 + 5$
 $= 110$

(iv) Total no of responses = 200

$$\text{Ratio} = \frac{110}{200} = \frac{11}{20} = 0.55$$

(c) Since 0.55 is not less than half of sampled population (i.e. $200/2 = 100$), it is recommended that the company should not embark on the development of the new brand.

ALITER

Question 6

$$n(U) = 200$$

$$n(A) = 55$$

$$n(B) = 45$$

$$n(C) = 50$$

$$n(A \cup B) = 80$$

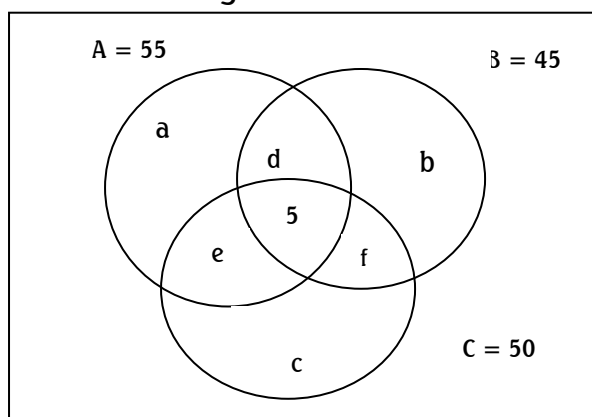
PATHFINDER

$$n(A \cup C) = 90$$

$$n(B \cup C) = 85$$

$$n(A \cap B \cap C) = 5$$

(a) Euler-Venn diagram



(b) From Circle A,
 $a + e + d + 5 = 55$

$$a + e + d = 50$$

From Circle B
 $b + d + f = 40$

From Circle C,
 $e + c + f + 5 = 50$

$$e + c + f = 45$$

using $n(A \cup B) = 80$
 $a + e + d + f + b + 5 = 80$

$$d = 15$$

using (viii) in (iii)

$$e + c + f = 45$$

$$40 + f = 45$$

$$f = 5$$

using $f = 5$ in (vii)

$$f + b = 25$$

$$5 + b = 25$$

$$b = 20$$

PATHFINDER

using $e = 10$ in (viii)

$$e + c = 40$$

$$10 + c = 40$$

$$c = 30$$

using $d = 15$ in (ix)

$$a + d = 40$$

$$a + 15 = 40$$

$$a = 25$$

Total number of people that prefer the present brand A, B and C is given by

$$a + b + c + d + e + f + 5$$

$$\text{i.e. } 25 + 20 + 30 + 15 + 10 + 5 + 5 = 110$$

(c) Ratio 110 : 20

$$= \frac{110}{200}$$
$$0.55$$

Since the Ratio (0.55) is greater than half of the sampled population (0.5), new brand D should not be developed by the company.

EXAMINERS' REPORT

The question tests candidates' ability to apply the concept of Set Theory.

The topic was fairly familiar with the generality of candidates as above 80% attempted the question. Performance was very poor. Only 12% of the candidates, who attempted the question scored 50% or above.

Candidates' shortcomings include the following:

- i. Inability to transform from Euler-Venne Diagram to mathematical equations
- ii. Deficiency in the interpretation of the results obtained
- iii. Exhibition of inadequacy in the use of ratios to support the interpretation of results

PATHFINDER

It is recommended that candidates should

- i. Be able to formulate mathematical equations required for decision making
- ii. Spend enough time to understand the key requirements of the question before taking management decisions

(a) **QUESTION 7**

	X	Y	Z
Machine hours	2	1	4
Labour hours	4	3	2

Let X be decision variables representing the number of type X paint produced

Let Y be a decision variable representing the number of type Y paint produced

Let Z be a decision variable representing the number of type Z paint produced

Objective function:

Maximize: $z = 400x + 600y + 500z$

Subject to:

$$2x + y + 4z \leq 400 \quad (\text{machine hours constraint})$$

$$4x + 3y + 2z \leq 600 \quad (\text{labour hours constraint})$$

$$x \geq 0, y \geq 0, z \geq 0 \quad (\text{non-negativity constraint})$$

(b) **By simplex method**

Standard form:

Maximize: $z = 400x + 600y + 500z + 0S_1 + 0S_2$

Subject to:

$$2x + y + 4z + S_1 = 400$$

$$4x + 3y + 2z + S_2 = 600$$

$$x \geq 0, y \geq 0, z \geq 0, S_1 \geq 0, S_2 \geq 0$$

Initial Tableau

	C_i	400	600	500	0	0		
		X	Y	z	S_1	S_2	q	R
$R_1, 0$	S_1	2	1	4	1	0	400	$\frac{400}{1} = 400$
$R_2, 0$	S_2	4	3	2	0	1	600	

PATHFINDER

								$\frac{600}{3} = 200$
	z_j	0	0	0	0	0	0	
	$c_j - z_j$	400	600	500	0	0		PIVOT row smaller of (400, 200)



Pivot column
(Highest in row $c_j - z_j$)

Note: S_2 is the outgoing variable while Y is the incoming variable

Use the elements in the PIVOT column to divide the corresponding values in column q. The smaller value shows the PIVOT row. The intersection of PIVOT row and column (3) is the PIVOT element.

First iteration

	c_i	400	600	500	0	0		
		x	y	z	S_1	S_2	q	r
$R_3, 0$	S_1	$\frac{2}{3}$	0	$\frac{10}{3}$	1	$-\frac{1}{3}$	200	$\frac{200}{10/3} = 60$ pivot row
$R_4, 600$	y	$\frac{4}{3}$	1	$\frac{2}{3}$	0	$\frac{1}{3}$	200	$\frac{200}{3/2} = 300$
	z_j	800	600	400	0	200	120,000	
	$c_j - z_j$	-400	0	100	0	-200		

S_1 is the outgoing variable, Z is the incoming variable and $\frac{10}{3}$ is the pivot element

$$R_3 = R_1 - R_2 \left(\frac{1}{3}\right)$$

$$R_4 = R_2 \left(\frac{1}{3}\right)$$

$$z_j \text{ row: e.g under } x = 0 \left(\frac{2}{3}\right) + 600 \left(\frac{4}{3}\right) = 800$$

PATHFINDER

Second iteration

	c_j	400	600	500	0	0		
		x	y	z	S_1	S_2	q	
R_5 500	z	$\frac{1}{5}$	0	1	$\frac{3}{10}$	$-\frac{1}{10}$	60	$R_5 = R_3 (\frac{3}{10})$
R_6 600	y	$\frac{6}{5}$	1	0	$-\frac{1}{5}$	$\frac{2}{5}$	160	$R_6 = R_5 (\frac{2}{3}) + R_4$
	z_j	820	600	500	0	190	126,000	z_j row: e.g under $S_1 =$
	$c_j - z_j$	-420	0	0	-30	-190		$500 (\frac{3}{10}) + (600) (\frac{1}{5}) =$
								30

Since all variables in $c_j - z_j$ row are negative and zero, then optimal solution is reached and therefore the optimal level of production of the company is to produce zero unit of type X paint, 160 units of type Y, 60 units of type Z paints and make a profit of ₦126,000.

EXAMINERS' REPORT

The question tests candidates' understanding of Linear Programming (using Simplex Method).

About 45% of the population attempted the question.

Performance was poor as about 15% of the candidates, who attempted the question, scored 50% or above.

Major shortcomings exhibited by candidates include the following:

- i. Inability to formulate the objective function
- ii. Poor understanding of the topic

It is recommended that candidates should

- i. Attend good quality tuition houses
- ii. Read varied texts on this topic

PATHFINDER

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

INTERMEDIATE EXAMINATIONS – MAY 2013

AUDIT AND ASSURANCE

Time Allowed: 3 hours

SECTION A: PART I

ATTEMPT ALL QUESTIONS

(20 Marks)

MULTIPLE-CHOICE 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. The auditors' working papers serve the following purposes **EXCEPT** as
 - A. An aid in planning the subsequent year's audit assignment
 - B. A record of work done by the auditor
 - C. An evidence of the auditor's opinion in case of litigation
 - D. A basis for agreement of the auditor's remuneration
 - E. A basis for performance evaluation
2. Which of the following is **NOT** part of the auditor's permanent file?
 - A. A list of accounting policies adopted by the organisation
 - B. A list of principal officers of the organisation and organisation chart
 - C. A schedule of the organisation's insurance policies
 - D. Addresses of the organisation's registered offices and premises
 - E. Letter of representation from the management on non-current assets
3. The members of the National Pension Commission comprise of representatives of the following bodies **EXCEPT**
 - A. Federal Ministry of Finance
 - B. Office of the Auditor-General for the Federation
 - C. Securities and Exchange Commission
 - D. Central Bank of Nigeria
 - E. Nigerian Labour Congress

PATHFINDER

4. A situation where an auditor promotes a client's position or opinion to the point that objectivity may be perceived to be compromised is..... threat
- A. Self interest
 - B. Advocacy
 - C. Self review
 - D. Objectivity
 - E. Beneficial interest
5. The assessment of inherent risk in an organisation is subject to the following factors **EXCEPT**
- A. Integrity of the director
 - B. Level of supervision of the business
 - C. Experience of management
 - D. Pressures on management decisions that might lead to financial misstatements
 - E. Factors affecting the industry in which the organisation operates
6. Which of the following is **NOT** a component of an organisation's internal control system?
- A. Control activities
 - B. Control risk
 - C. Control environment
 - D. Risk assessment
 - E. Communication and information
7. Programs written for the purpose of performing routine data processing functions such as sorting and printing of files are
- A. Generalised programs
 - B. Routine programs
 - C. Test data programs
 - D. Utility programs
 - E. Embedded programs

PATHFINDER

8. An audit software which allows tests to be carried out by the auditor simultaneously as it is being processed is
- A. Test data packs
 - B. Integrated test facility
 - C. Computer assisted audit
 - D. Embedded audit facility
 - E. Simultaneous audit
9. Which of the following is **NOT** a function of the Auditor-General for the Federation?
- A. Financial audit
 - B. Regularity audit
 - C. Effectiveness audit
 - D. Economical audit
 - E. Efficiency audit
10. The Chairman of the National Council on Public Procurement which was set up by Act No 141 2007 is
- A. Head of Civil Service of the Federation
 - B. Economic Adviser to the President
 - C. Secretary to the Government of the Federation
 - D. Minister of Finance
 - E. Minister of Justice
11. The following documents are necessary to ascertain that due process has been adhered to in the spending of public fund **EXCEPT**
- A. Tender returns
 - B. Contract award letter
 - C. Substantial evidence of advertisement
 - D. Interim Valuation and Certificates
 - E. Tax Clearance Certificate of the awardee

PATHFINDER

12. Which of the following is **NOT** a type of uncertainty in forming an audit opinion?
- A. Doubt about the outcome of a major litigation
 - B. Inability to carry out a necessary audit procedure
 - C. Adoption of an inappropriate accounting policy
 - D. Inability to obtain necessary information and explanation
 - E. Limitations in the scope of an audit
13. A clean audit report implies that the financial statements possess the following qualities **EXCEPT**
- A. Compliance with Generally-Accepted-Accounting-Principles
 - B. Preparation by qualified auditing personnel
 - C. Consistency in application of accounting policies
 - D. Disclosure of all relevant information
 - E. Compliance with relevant statutes
14. The process of using a small sample of items to trace the existing accounting system in order to ensure proper understanding is known as test
- A. Substantive
 - B. Compliance
 - C. Walkthrough
 - D. Audit
 - E. Sampling
15. The document which establishes a contractual relationship between the auditor and the client organisation is
- A. Letter of representation
 - B. Memorandum of understanding
 - C. Confirmation letter
 - D. Engagement letter
 - E. Management letter
16. The factors to be considered by an external auditor before placing reliance on an internal auditor's work do **NOT** include the
- A. Scope of work of the internal auditor
 - B. Quality of the internal auditor's report
 - C. Remuneration of the internal auditor

PATHFINDER

- D. Independence of the internal auditor
 - E. Experience of the internal auditor
17. A type of audit which involves a systematic review of an organisation's activities or a part thereof, in relation to the efficient and effective use of resources is audit
- A. Compliance
 - B. Operational
 - C. Forensic
 - D. Financial Statement
 - E. Public Accounts
18. Which of the following is **NOT** an example of assurance service?
- A. System design
 - F. Information system reliability
 - G. Risk assessment
 - H. Healthcare performance measurement
 - I. Electronic commerce
19. In accordance with Section 358 of the Companies and Allied Matters Act. CAP c20 LFN 2004, which of the following shall be eligible for appointment as auditors of a company?
- B. An officer or servant of the company
 - C. A member of an approved professional body
 - D. A person who is a partner or in the employment of an officer or servant of the company
 - E. A person or firm who or which offers the company professional advice in a consultancy capacity
 - F. A body corporate
20. Which of the following is **NOT** a right of an auditor?
- A. Right of denial of access to all records, accounts and vouchers
 - B. Right to representation
 - C. Right to call on directors to summon an Extra Ordinary General Meeting
 - D. Right to attend Annual General Meeting
 - E. Right to receive notice of Annual General Meeting

PATHFINDER

SECTION A: PART II

ATTEMPT ALL QUESTIONS

(20 Marks)

SHORT-ANSWER QUESTIONS

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

1. A method of obtaining information in response to an enquiry to corroborate information previously made available to the auditor in the course of the audit is known as.....
2. An auditor is not expected to disclose information about his client except with the client's consent or.....
3. Shareholders should be nominated as members of the audit committee at least.....days before the Annual General Meeting
4. A reserve kept by insurance companies to cover fluctuations in securities and variations in statistical estimates is known as.....
5. A director's indirect financial interest in a client organisation may lead to.....
6. The duty of ensuring that the statement of financial position of a company is prepared in line with laid down laws and regulations lies with the.....
7. The identification, analysis and management of risks relevant to the preparation of financial statements in conformity with the Generally Accepted Accounting Principles is known as.....
8. The process that is used to trace the status and contents of an individual transaction between output, processing and source document is called.....
9. The power to appoint the Auditor-General for Local governments is vested in the.....
10. A committee of the National Assembly set up for the purpose of exposing inefficiency or waste in the administration of funds is known as.....

PATHFINDER

11. Controls set up in a computer environment to ensure the completeness and accuracy of processing and to ensure validity of the resulting accounting entries are called.....
12. A qualified report stating that the auditor is unable to form an opinion as to whether the financial statements give a true and fair view is
13. Two methods of taking inventory in common use areand.....
14. The procedure for distinguishing one period's purchases and sales from those of the preceding and subsequent periods is known as.....
15. The computer programs used by the auditor to examine the client's computer file is known as
16. The establishment of ownership, existence and valuation of assets in the statement of financial position and the correctness of liabilities as at that date is referred to as.....
17. The means by which audit firms ensure that their expression of opinion on the financial statements always reflect the observance of approved auditing standards and relevant legal requirements is known as.....
18. The attribute of audit evidence that concerns the objective to be achieved in a particular audit is termed.....
19. The type of Computer Assisted Audit Technique used to verify the existence of program controls within the client computer system is.....
20. An auditor of a company needs to be familiar with all the internal rules and regulations guiding the operation of the company before carrying out the audit work. The document that contains these rules is known as.....

SECTION B:

ATTEMPT ANY FOUR QUESTIONS

(60 Marks)

QUESTION 1

In a computer based system, data stored may be accessible to all users that require it. The major control problem concerns the authorisation of data amendments and restriction of access to data.

PATHFINDER

You are required to:

- a. Identify **FOUR** controls that are expected to be instituted in each of the following:
 - a. Prevention of unauthorised changes to program (4 Marks)
 - b. Prevention of errors during operations (4 Marks)
 - c. Ensuring integrity of the database system (4 Marks)
 - b. Highlight the control problems that are peculiar to computer-based systems, using personal computers (PC) (3 Marks)
- (Total 15 Marks)**

QUESTION 2

Section 359 schedule 6 of the Companies and Allied Matters Act CAP C20 LFN 2004 requires inclusion in the audit report of an opinion that the Financial Statements show a true and fair view of the State of Affairs of the company and were prepared in accordance with the provisions of the Act.

You are required to:

- a. Present the essential elements of a typical audit report of a limited liability company. (5 Marks)
- b. Identify the major circumstances under which an auditor would qualify an audit report. (5 Marks)

In compliance with Schedule 6 of the Companies and Allied Matters Act CAP C20 LFN 2004

- c. Identify the matters that should be expressly stated in the auditor's report in compliance with schedule 6 of the Companies and Allied Matters Act CAP C20 LFN 2004. (5 Marks)
- (Total 15 Marks)**

QUESTION 3

The IFAC Code of Ethics for Professional Accountants gives a list of threats to auditors' independence.

PATHFINDER

You are required to:

Explain the following types of threats and give **TWO** examples each of circumstances that may lead to the threats:

- a. Self Review (3 Marks)
- b. Self Interest (3 Marks)
- c. Familiarity (3 Marks)
- d. Advocacy (3 Marks)
- e. Intimidation (3 Marks)

(Total 15 Marks)

QUESTION 4

Every public limited liability company is expected to set up an audit committee in line with the provisions of Companies and Allied Matters Act CAP C20 LFN 2004

You are required to:

- a. Explain the establishment of an audit committee in terms of the:
 - i. Composition of the committee (2 Marks)
 - ii. Tenure of the committee (1 Mark)
 - iii. Process of appointing the members of the committee (2 Marks)
- b. Identify **FIVE** statutory functions of the committee (5 Marks)
- c. Present **THREE** merits and **TWO** limitations of the committee (5 Marks)

(Total 15 Marks)

QUESTION 5

You are the Audit manager assigned to a medium sized client. The partner in charge has asked you for information required to plan the audit.

You are required to:

- a. Explain the term Audit Planning Memorandum. (2 Marks)
- b. State the information in an audit planning memorandum. (5 Marks)

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- c. Identify the factors that could constitute hinderances towards a successful implementation of an audit plan. (5 Marks)
 - d. List **THREE** advantages of documenting an audit plan. (3 Marks)
- (Total 15 Marks)**

QUESTION 6

There is need for managers to report their stewardship to the owners of business and other stakeholders.

You are required to:

- a. Explain **FOUR** reasons why the stewardship report prepared must be audited by an independent auditor (8 Marks)
 - b. Identify **FOUR** qualities required of an independent auditor (4 Marks)
 - c. State **THREE** assurance assignments that can be performed by an independent auditor besides statutory audit (3 Marks)
- (Total 15 Marks)**

SOLUTIONS TO SECTION A

PART I MULTIPLE-CHOICE QUESTIONS

- 1. D
- 2. E
- 3. B
- 4. B
- 5. B
- 6. B
- 7. D
- 8. D
- 9. D
- 10. D
- 11. E
- 12. C
- 13. B
- 14. C

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15. D
16. C
17. B
18. A
19. B
20. A

EXAMINERS' REPORT

The questions are varied and cover a wide area of the syllabus. The performance of the candidates was generally average.

Better preparation in future will enhance candidate's performance.

PART II

SHORT-ANSWER QUESTIONS

1. Third party confirmation
2. Where he is required by law/in the public interest/he has a professional right to disclose
3. 21
4. Contingency reserve
5. Self interest threat
6. Directors
7. Risk management
8. Audit Trail
9. State Governor
10. Public Accounts Committee
11. Application controls
12. Disclaimer of opinion
13. Continuous, periodic
14. Cut off procedures
15. Audit software

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16. Verification
17. Quality control
18. Relevance
19. Test data packs
20. Articles of Association

EXAMINERS' REPORT

The questions cover various parts of the syllabus. The candidates performed poorly in this part. This underscores the fact that candidates failed to understand the requirement of the questions.

Candidates are advised to:

- i. spend more time in preparation for future examinations.
- ii. Acquaint themselves with recommended text books.
- iii. Practise with past question papers.

SOLUTIONS TO SECTION B

QUESTION 1

- (a) (i) Controls to prevent unauthorised changes to programs include:
- restricted access to the central computer, server and terminals
 - no access to live program files by any personnel except for the operational personnel at the central computer.
 - Password protection of programs
 - Periodic comparison of live production programs to control copies and supporting documentation.
 - Maintenance of a console log and; scrutiny by the data processing manager or responsible official and by an independent party such as the internal auditors.

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- Use of anti-virus software

(ii) Controls to prevent errors during operation:

- Maintenance of logs showing unauthorised attempts to access and; regular scrutiny by the data processing manager and internal auditors
- Restrictions of programs to certain fields
- Physical protection of data files
- Data communication controls - encryption of data
- Satisfactory application controls over input, processing and master files and their contents
- Use of operations manuals and training of all users
- Training in emergency procedures

(iii) Controls to ensure integrity of the database system

- Preparation and update as necessary of user manuals in conjunction with the data dictionary.
- Restriction of access to the data dictionary
- Liaison between the database administration function and systems development personnel
- Segregation of duties between the data processing manager, the database administration function and systems development personnel
- Proper control of utility program by the Information Technology (IT) Staff
- Antivirus Management
- Read only mode should be put in place to ensure integrity of data base system

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(b) The problems associated with using PCs can be grouped under three headings:

- i. Lack of planning over the acquisition and the use of PCs
- ii. Lack of documentary evidence
- iii. Lack of security and confidentiality

All these areas could produce problems for the auditors, giving them difficulties when attempting to access the documentation the adequacy of design processes and testing completeness, accuracy and integrity of data and audit trails are also relevant.

EXAMINERS' REPORT

The question tests candidates' knowledge on controls in a computer based system. About 30% of the candidates attempted the question and the performance was poor. It is evident that candidates did not prepare well for this part of the syllabus.

The major pitfalls of candidates is lack of preparation for this part of the syllabus. Candidates are advised to get themselves acquainted with questions on computer based system considering the global emphasis on Information Technology.

QUESTION 2

- a. The essential elements of a typical audit report are as follows:
- i. **Title:** The auditor should use an appropriate title to help the reader identify the audit report and to distinguish it from other reports.
 - ii. **Those to whom the report is addressed:** The auditor should address the report to the client or otherwise, as required by the terms of the engagement or statutory requirements.
 - iii. **The financial statements to which the report refers:** The audit report must identify the financial statements being audited by name or by reference to their location in the document.
 - iv. **Respective responsibilities of Directors and Auditors:** The report should highlight the responsibilities of the Directors and the Auditor as regards the Financial statements being reported on

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- v. **A reference to the statute under which the audit was carried out:** The audit report should make reference to the statutory provisions, auditing standards and practices followed in conducting the audit, and also refer to other regulatory requirements.
 - vi. **The auditor's opinion:** The audit report must contain a clear written expression of opinion or disclaimer of opinion on the financial statements.
 - vii. **The auditor's signature:** The audit report should be signed in the name of the audit firm, the personal names of one or more partners, or both as required by the reporting standard in the country or territory the report is being issued.
 - viii. **The date of the report:** In dating the audit report, there is the implication that the auditor has considered the effect on the financial statements and on the report of events and transactions up to that date.
 - ix. **The auditor's address:** The audit report should include the address of the auditors including the location, usually the city.
- (b) Major circumstances under which an auditor would qualify his audit report are:
- i. Uncertainties
 - ii. Disagreements

(i) Uncertainties

An uncertainty is a situation where the auditor is unable to form an opinion of a particular matter relating to the financial statements or the financial statements as a whole. Uncertainty may relate to the nature of the item (i.e. inherent uncertainties) or may be caused by the non-availability of audit evidence (i.e. limitation in the scope of the audit)

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Examples include:

- Inherent uncertainties
 - Doubt about the outcome of a major litigation
 - Doubt about the outcome of a long term contract
 - Doubt about the ability of a company to continue on a going-concern basis
- Limitations in the scope of an audit
 - Inability to carry out necessary audit procedure and tests
 - Absence of proper accounting records
 - Inability to obtain all the information and explanation necessary

(ii) Disagreement

A disagreement is a situation that arises where the auditor's opinion on a particular matter or financial statements as a whole conflict with the view or opinion given by the financial statements.

Examples include:

- Failure to comply with a relevant accounting standards (e.g. IFRS)
 - Company adopts an inappropriate accounting policy
 - Disagreement as to facts or figures
 - Failure to comply with legislatures and; other regulatory requirements
 - Disagreement as to the manner or extent of legislature
- (c) In compliance with schedule 6 of Section 359 of Companies and Allied Matters Act CAP 20 LFN 2004, the auditor should refer expressly in his report to the following matters:
- i. Whether the auditor has obtained all the information and explanations necessary for the purpose of their audit.

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- ii. Whether in his opinion, the company has kept proper books of accounts, and proper returns adequate for the purpose of the audit obtained from branches not visited.
- iii. Whether the financial statements are in agreement with the books of accounts and returns.
- iv. Whether in the auditor's opinion, the financial statements give a true and fair view of the state of affairs, profits or loss and, where applicable, cash flow statement.
- v. Whether the financial statements have been prepared in accordance with the provisions of all the relevant statutes.

EXAMINERS' REPORT

The question tests candidates knowledge of audit report. The question was attempted by about 90% of the candidates, but performance was poor especially in parts (a) and (c) where candidates interchanged their solutions. Candidates should in future read questions very well for a proper understanding of the requirements of the question before attempting them.

QUESTION 3

a. Self Review Threat

This is a threat which occurs when a product or judgement on an audit engagement needs to be re-evaluated in order to reach conclusions on the engagement.

Circumstances include:

- i. A member of the audit team having recently been a director or officer of the client organisation.
- ii. A member of the audit team performing services for the client that directly affect the audit assignment.
- iii. Preparation of financial statements to be audited by the audit firm.

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b. Self Interest Threat

This is a threat which occurs when a firm or a member of an audit firm could benefit from a financial interest or other self interest benefits from the client organisation.

The circumstances include:

- i. A direct or indirect financial interest in the client organisation
- ii. A loan or guarantee to or from the client organisation or its directors or officers
- iii. Close business relationship with the client company.
- iv. Undue dependence on the fees received from a client organisation

c. Familiarity Threat

This is a threat which occurs when there is a close relationship or the possibility of a close relationship between the firm or members of the audit team and the client organisation.

The circumstances include:

- i. A member of the audit team having a close family member who is a director, or officer of the client organisation.
- ii. A former partner of the audit firm being a director or officer of the client organisation.
- iii. Acceptance of gifts or hospitality from the client organisation, its directors, officers or employers except it is immaterial.
- v. Having of long personal relationship with the client.

d. Advocacy Threat

This occurs when a firm or members of an audit team promotes or are perceived to promote, the position or opinion of a client such that objectivity is perceived to be compromised.

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The circumstances include:

- i. Dealing in or promoting shares or other securities of a client organisation.
- ii. Acting as an advocate on behalf of a client in litigation.
- iii. Acting as an advocate on behalf of a client in resolving disputes with third parties.

e. **Intimidation Threat**

This occurs when a firm or members of an audit team are prevented from carrying out their duty with objectivity and due professionalism as a result of threats actual or perceived from the directors, officers or employees of the client organisation.

The circumstances include:

- i. Threat of replacement of the auditor over disagreement on application of accounting principles.
- ii. Pressure to reduce inappropriately the extent of work done.
- iii. Threat of reduction of fees.
- iv. Threat arising out of family, business or personal relationship.

EXAMINERS' REPORT

The question tests candidates' understanding of ethics for professional accountants on threats. About 80% of the candidates attempted the question and their performance was good.

QUESTION 4

- (a) i. According to Section 359 of the Companies and Allied Matters Act C20 LFN 2004, the Audit Committee shall comprise of an equal number of directors and representatives of the shareholders. This is subject to a maximum of six members.
- ii. The tenure of office of the committee is **one year** subject to re-election.

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- iii. Any member may nominate a shareholder as a member of the audit committee by giving notice in writing of such nomination to the secretary of the company at least 21 days before the Annual General Meeting.

(b) The statutory functions of the committee are to:

- i. Ascertain whether the accounting and reporting policies of the company are in accordance with legal requirements and agreed ethical practices.
- ii. Review the scope and planning of audit requirements.
- iv. Review the findings on management matters in conjunction with the external auditors and departmental responses thereon.
- v. Keep under review the effectiveness of the company's system of accounting and internal control.
- vi. Make recommendations to the Board in regard to the appointment, removal and remuneration of the external auditors of the company.
- vii. Authorise the internal auditor to carry out investigations into any activities of the company which may be of interest or concern to the committee.

(c) Merits

- i. The committee provides assistance to directors in carrying out their legal responsibilities.
- ii. The objectivity and credibility of the financial statements are usually improved through their contributions.
- iii. The committee protects the auditors' independence by acting as an intermediary between the auditors and management.
- iv. It makes non-executive directors more responsible and increases their knowledge about the affairs of the organisation.
- v. It allows the public to have confidence in the running of the organisation.
- vi. It allows for an independent review of the audit procedures.

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- vii. It gives room for improvement in the quality of the audit process.
- viii. It leads to reasonable charge in audit fees.

Limitations

- i. It could lead to increase in time usage and expenditure on administration – overheads, meetings, and the like
- ii. It could lead to conflict of interest between the committee and management.
- iii. The audit committee might encroach on some responsibilities of management.

EXAMINERS' REPORT

The question tests candidates' knowledge on statutory provisions as regards Audit Committee. Over 90% of the candidates attempted the question and performance was poor. Candidates should prepare well for the examination in future.

QUESTION 5

- a. The audit planning memorandum is a document setting out the information obtained by the auditor during the audit planning process and the decisions taken as a result of the planning effort. It provides a vehicle for communicating the information and decisions to the members of audit staff involved in the audit assignment.
- b. The information in an audit planning memorandum includes the following:
 - i. Background information which include:
 - Brief history of the organisation
 - Nature of business
 - Economic environment
 - Significant accounting policies
 - Organisational structure

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- Accounting records
 - Internal controls
 - Terms of engagement
 - Audit objectives
- ii. Audit strategy: Information to be set out under audit strategy section includes:
- Audit approach: These are steps to be taken in carrying out audit assignments.
 - Audit risk: This may be regarded as a combination of factors that give rise to material errors in the financial statements and; incorrect audit opinion.
- iii. Job Administration: Information provided includes
- Key dates for:
 - Audit field work
 - Manager field review
 - Confirmation letters
 - Engagement Partners' final review
 - Reporting deadline
 - Staffing
 - Time budget (audit budget)
- iv. Audit programme: This should include the detailed audit programme for each caption/section.
- c. Factors that may militate against the achievement of the audit plan include the following:
- i. Failure of client to meet deadline for preparing financial statements.
 - ii. The occurrence of significant changes in the client's business during the year.

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- iii. High labour turnover resulting in the exodus of experienced staff in the audit firm.
 - iv. Significant changes in the operating environment.
 - v. Unexpected changes in accounting system and internal control system.
 - vi. Lack of co-operation from both staff and management of the client company.
 - vii. Unexpected changes in government policies and statutory requirements that may likely impact on the nature of client business or financial statements.
- d. Advantages in the use of a standard audit planning memorandum include:
- i. Ensuring that the audit work is based on the views of the most experienced member(s) of the audit team.
 - ii. Crystallises the thoughts of those responsible for its preparation and encourages them to give sufficient consideration to all-important aspects of the audit.
 - iii. Makes certain that the planning process is adequately documented and a record of the reasons for the scope of the audit is retained.
 - iv. Reducing the possibility of any misunderstanding between members of the audit team as regards the responsibility for the work to be performed.
 - v. Facilitating the communication of background and administrative information to those engaged in the audit.
 - vi. Facilitating the review of the completed audit by the partner and manager as they can concentrate on evaluating the results of the audit tests rather than on checking that the work done was adequate.
 - vii. Using as a firm base for planning the audit in subsequent years.
 - viii. Serving as a basis for directing and controlling the audit work.
 - ix. Using it to defend litigation against professional negligence.

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EXAMINERS' REPORT

The question tests candidates' understanding of Audit Planning. About 50% of the candidates attempted the question and performance was average.

Candidates are advised to cover all areas of the syllabus properly in future.

QUESTION 6

The reasons why stewardship report prepared must be audited by an independent auditor include:

- i. **Conflict of interests:** The company's financial statements are expected to be prepared by its directors in line with the requirements of Companies and Allied Matters of CAP C20 LFN 2004. The financial statements are essentially report of the managers and directors' stewardship to the owners of business therefore, the users of the financial statements want the report to portray the company's financial position and financial performance as accurately as possible.
- ii. **Consequence of error:** Placing reliance on company's financial statements that contain unreliable information in taking investment decision may lead to serious financial loss. The users will expect that the financial statements are given to an independent auditor to carry out audit work with a view to expressing audit opinion on the statements.
- iii. **Remoteness:** As a consequence of legal, physical and economic factors, users of financial statements are not able to verify the reliability or otherwise of the information contained in the financial statement.
- iv. **Complexity:** Because of the changes arising from the company's growth in size and in volume of transactions as well as increasing complexity of the accounting system and financial reports, errors are more likely to creep into the financial statements prepared by the directors/managers of the company.
- v. **Dispute avoidance:**

With independent audit of the stewardship function, disputes relating to proprietary interests will likely be avoided.

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vi. **Compliance with regulatory requirements:**

Independent audit gives assurance that the financial statements comply with relevant standards and regulations thereby obviating or avoiding risk of sanctions.

vii. **Compliance with statutory requirements:**

Independent audit gives the indication that statutory requirements are complied with.

b. The qualities of an independent auditor include the following:

i. **Integrity:** The fundamental principles require that all accountants in public practice should behave with integrity in all professional, business and financial relationships he is engaged in. Integrity implies not merely honesty but fair dealing and truthfulness.

ii. **Independence:** Independent auditors must at all times be free from any personal bias in giving his opinion. He should not allow himself to be put in a situation where any third party could put pressure on him to change his properly-arrived-at audit opinion. In fact, auditors must be clearly seen to be independent in practice. By this he must not only be independent but also seen to be independent.

iii. **Objectivity:** Objectivity is essential for any professional person exercising professional judgement. Objectivity is the state of mind which has regard to all considerations relevant to the particular task on hand but no other. By objectivity, we mean that the auditor must base his opinion on evidence that can be verified and therefore must be no bias in obtaining audit evidence.

v. **An Enquiring Mind:** A successful audit cannot be considered merely by checking the entries in the client's records. It requires an understanding and awareness of all aspects of the client's business and how the business may be affected by outside factors. The auditor must obtain whatever information and explanation he considers necessary for the purpose of his audit. This is also known as professional scepticism. He must go about this work not with malice, or after thought but with a fair and open mind.

vi. **Tact:** Tact involves dealing with people in a sympathetic and considerate manner and it is also a quality which will enable the

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auditor to handle awkward situations. If the auditor is tactful, he is much more likely to obtain the information he required.

- vii. **Methodical approach:** The auditor as required by the “Auditors Operational Guidelines, must adequately plan, control and record his work. The whole of the audit process must be adequately planned and carried out to ensure that all necessary work has been completed and that no significant area has been omitted. All work carried out by the auditor must be carefully and fully documented so that it can be used for future reference and also to facilitate review for control purposes.
 - viii. **A good knowledge of the environment:** The auditor should have a good knowledge of both the theory and practice of the environment in which he operates. He must know where to find the information he needs, the right people to ask for explanation he requires and also have the ability to communicate his findings clearly and comprehensively to interested parties.
- c. Other assurance assignments that can be performed by an independent auditor include:
- i. Risk assessment
 - ii. Business performance measurement
 - iii. Information system reliability
 - iv. Electronic commerce
 - ix. Reports on internal controls
 - x. Value for money audit
 - xi. Performance development reviews
 - xii. Compliance reviews

EXAMINERS' REPORT

The question tests candidates' understanding of:

- (a) an independent audit
- (b) qualities of an independent audit
- (c) assurance services

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Over 80% of the candidates attempted the question and the candidates' performance was poor. The commonest pitfall was lack of proper understanding of the question.

Candidates should prepare well for the examination in future.

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THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

INTERMEDIATE EXAMINATIONS – MAY 2013

TAXATION

Time Allowed: 3 hours

SECTION A: PART 1 ATTEMPT ALL QUESTIONS (20 Marks)

MULTIPLE-CHOICE 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. Which of the following is **NOT** subject to Withholding Tax?
 - A. Salaries
 - B. Rents
 - C. Professional fees
 - D. Commissions
 - E. Dividends

2. Which Agency of Government is responsible for Taxation of Limited Liability Companies in Nigeria?
 - A. Stamp Duties Office
 - B. Education Tax Fund Office
 - C. Federal Inland Revenue Service Board
 - D. Joint Tax Board
 - E. State Internal Revenue Service

3. Allowances that are usually granted in lieu of depreciation under Nigerian Tax laws are
 - A. Departmental allowances
 - B. General allowances
 - C. Personal allowances
 - D. Allowable deductions
 - E. Capital allowances

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4. The term given to an outright dishonest action whereby a tax payer seeks to minimize his tax liabilities through an illegal act is Tax

 - A. Chargeable
 - B. Evasion
 - C. Avoidance
 - D. Allowances
 - E. Deductions

5. Which tier of Government is responsible for the collection of Tenement Rate?

 - A. Federal and Local Governments
 - B. Federal Government
 - C. Federal and State Governments
 - D. State Governments
 - E. Local Governments

6. Taxes that are based on Instruments which are known as written Documents are

 - A. Excise Duties
 - B. General Duties
 - C. Instrument Duties
 - D. Stamp Duties
 - E. Import Duties

7. Under the Commencement Rule, for which Years of Assessment can a tax payer exercise his right of election or option to be assessed to tax?

 - A. Second and third
 - B. Third and fourth
 - C. First and second
 - D. First and third
 - E. Second and fourth

8. Which of the following **CANNOT** be performed by using Electronic Spreadsheet for tax matters?

 - A. Displaying information visually
 - B. Including formula in values
 - C. Planning workshop objectives

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- D. Calculating current data
 - E. Updating information and calculations
9. From which of the following will an Appeal be made to a High Court?
- A. Magistrate Court
 - B. Customary Court
 - C. Minister of Finance
 - D. The Commissioner of Stamp Duties
 - E. Palace of Oba/Emir/Obi
10. What is the limit of the amount of loss that can be granted as a Loss Relief to a Company?
- A. Limited to the amount of loss
 - B. Double the amount of loss
 - C. Thrice the amount of loss
 - D. 50 percent of the amount of loss
 - E. 75 percent of the amount of loss
11. In relation to Incomes of Specialised Businesses, which of the following is the most relevant in the determination of Taxable Income in Nigeria?
- A. Derived from abroad
 - B. Derived from all over the world
 - C. Derived from foreign company
 - D. Derived from Global company
 - E. Derived or deemed derived in Nigeria
12. What is the basis of assessing an old established company to taxation?
- A. Actual year basis
 - B. Succeeding year basis
 - C. Accruals basis
 - D. Preceding year basis
 - E. Continuity basis

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13. Which of the following is **NOT** a condition for an expense to qualify as an allowable deduction under Personal Income Tax Act CAP P8 LFN 2004 (as amended)?
- A. Necessarily
 - B. Hopefully
 - C. Exclusively
 - D. Wholly
 - E. Reasonably
14. What is the maximum number of directors of a Property Holding Company whose fees are allowable?
- A. Two
 - B. Three
 - C. Four
 - D. Five
 - E. Six
15. Within how many days should a valid Notice of Appeal be filed, counting from the date of service of the Notice of refusal to amend the Assessment?
- A. 15
 - B. 60
 - C. 30
 - D. 45
 - E. 90
16. A small business is one whose turnover does **NOT** exceed
- A. ~~₦~~1,000,000
 - B. ~~₦~~750,000
 - C. ~~₦~~500,000
 - D. ~~₦~~250,000
 - E. ~~₦~~ 100,000
17. Who is responsible for the preparation of a Trust Account?
- A. Investor
 - B. Finance Director
 - C. Trustee
 - D. Beneficiary
 - E. Accountant

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18. Which of the following is the collecting Authority in respect of Instruments executed between a company and an individual?
- A. State Government
 - B. Local Government
 - C. Federal Mortgage Bank
 - D. Federal Inland Revenue Service
 - E. State and Federal Governments
19. Withholding Tax deducted from a Dollar (US\$) denominated transaction should be remitted to the appropriate Tax Authority in
- A. Euro
 - B. Deutsche Mark
 - C. Pound Sterling (£)
 - D. Dollars (US\$)
 - E. Naïra
20. Which of the following is **NOT** a definition of a 'Child' under Settlement, Trusts and Estates?
- A. Step child
 - B. Brother
 - C. Adopted Child
 - D. Own Child
 - E. Illegitimate Child

SECTION A: PART II

ATTEMPT ALL QUESTIONS

(20 Marks)

SHORT-ANSWER QUESTIONS

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

1. Which tier of Government collects Slaughter Slab Fees?
2. The administration of Income Tax in each State of the Federation is vested in

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3. Any employment, not being a foreign employment, the duties of which are wholly or partly performed in Nigeria is known as
4. The Relevant Tax Authority for members of the Nigeria Police Force is
5. How are the expenses relating to the provision of meals in any staff canteen treated for tax purposes?
6. A person to whom a Legacy is bequeathed is called
7. A person who is empowered by law to administer the Estate of a deceased person is known as
8. In the computation of Company Income Tax, Accounting Profit is primarily converted into
9. The maximum allowable deduction for donations other than donations to tertiary institutions in ascertaining the profit of a company is
10. The Basis of Assessment for a company in the Year of Cessation is
11. Given that the Tax Written Down Value on disposal of a fixed asset amounted to ₦700,000, while the sales proceeds amounted to ₦960,000. The difference of ₦260,000 resulting from this transaction is a
12. The gap between basis periods on a Change of Accounting Date situation is deemed to belong to Year of Assessment.
13. Unrelieved Loss which can no longer be carried forward upon the Cessation of a business is known as
14. What is the Income Tax payable by a company with a Total Profit of ₦240 million for 2012 Tax Year?
15. The only form of Loss Relief that is available to a company in Nigeria is
16. The net amount of VAT due for remittance under the Law is the excess of over

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17. For an Objection to an Assessment to be valid, Notice of Objection must be filed within after the date of service of Notice of Assessment.
18. It is a general rule that '*Ad Valorem*' Duty is not paid more than
19. "Write", "Written" and "Writing" includes every mode in which words or figures can be expressed upon
20. An assessment that is raised to replace an original assessment is known as

SECTION B: ATTEMPT ANY FOUR QUESTIONS (60 Marks)

QUESTION 1

"Imposition of any type of tax on the citizens (Individuals and Companies) requires the promulgation of Laws which must be enforced on prospective tax payers."

You are required to:

- a. Explain with examples, the **THREE** main sources of Nigerian Tax Laws. (6 Marks)
 - b. Identify the Relevant Tax Authority responsible for registering the following for tax purposes:
 - an Incorporated Company (1 Mark)
 - an Unincorporated Company (1 Mark)
 - c. State any **SIX** relevant documents for the filing of an Application for Tax Clearance Certificate of a company that has registered at the relevant tax office. (3 Marks)
 - d. State any **FOUR** information that must be disclosed in a Tax Clearance Certificate in respect of the last three years. (4 Marks)
- (Total 15 Marks)**

QUESTION 2

Mr. Akwa created a Trust for his four children: Ade, Baruwa, Chidi and Dafur. The records of the Trustee for the year ended 31 December 2010, revealed the following information:

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	₦
Profit from trading activities	980,000
Interest received on Fixed deposits	270,000
Rent from Property (gross)	620,000
Other Income	163,000

Other relevant information include:

- i. Dafur is to get a Fixed Annuity of ₦35,000 per annum.
- ii. The remuneration of the Trustee is fixed at ₦20,000 per annum, plus 2.5 per cent of Computed Income.
- iii. The allowable expenses of the Trustee amounted to ₦25,000.
- iv. The Trustee made the following discretionary payments:
Ade – ₦40,000, Baruwa – ₦30,000, Chidi – ₦20,000 and Dafur – ₦15,000.
- v. Capital Allowance agreed for the business of the Trustee was ₦22,000.
- vi. Half of the Net Distributable Income of the Settlement is to be shared equally among the beneficiaries.

You are required to:

- a. Explain the terms “Settlement”, “Trust”, and “Estate”. (3Marks)
 - b. Calculate the income of the Settlement chargeable to Tax in the hands of each of the beneficiaries. (9 Marks)
 - c. Calculate the amount of undistributed Income of the Settlement assessable to Tax in the hands of the Trustee. (3 Marks)
- (Total 15 Marks)**

QUESTION 3

- (a) The Education Tax Act 1993 (ETA 1993), later known as Education Tax Act Cap E4 LFN 2004 is now known as Tertiary Education Trust Fund Act 2011 Education Tax is due from all companies to which the provisions of the Companies Income Tax Act apply.
Identify the sole authority empowered in Law to assess and collect the tax. (2 Marks)

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- (b) Pauline Ade Limited is engaged in the merchandizing of building materials. Its results for the year ended 31 December 2011, are as stated below:

	N'000
Net Profit per accounts	7,600
After charging:	
Depreciation	765
Loss on sale of fixed assets	300
Loan interest	2,400
And crediting: Franked Investment Income	600
Bank Deposit Interest (gross)	4,500
NOTE: Capital Allowance claimed by the company	1,000

Compute the Company's Tax Liabilities for the Relevant Year of Assessment.
(6 Marks)

- (c) Explain any **THREE** peculiarities of Withholding Tax. (3 Marks)
- (d) State any **EIGHT** information that a Withholding Tax Payment Schedule must contain. (4 Marks)
- (Total 15 Marks)**

QUESTION 4

Ballard Richie Limited is a registered VAT agent of the FIRS. The transactions of the company in relation to VAT for year ended 31 December 2011, are as follows:

VAT Accounts	N
VAT charged on manufactured goods	3,880,000
VAT charged on items purchased for resale	4,360,000
VAT charged on other services	1,800,000
VAT paid on raw materials	1,360,000
VAT paid on merchandise items	3,157,000
VAT paid on fixed assets purchased	563,000
VAT paid on legal services	82,000
Remittances to the FIRS during the year	3,060,000

You are required to:

- a. i. Calculate the total amount of VAT due to FIRS. (5 Marks)
- ii. Ascertain the balance of VAT to be remitted at the end of the year. (1 Mark)

PATHFINDER

- b. State **THREE** instruments specifically exempted from Stamp Duties. (3 Marks)
 - c. Explain the uniqueness of '*Ad Valorem*' Duty. (2 Marks)
 - d. Identify any **FOUR** benefits of applying computer models in tax administration. (4 Marks)
- (Total 15 Marks)**

QUESTION 5

- a. De Don Airline is a foreign airline registered in Nigeria. The figures stated below relate to the operations of the company in 2011 Accounting Year. You are required to calculate the Tax Payable by the Company on its Fares derived in Nigeria, given that:

	N
Income derived from all routes	84,000,000
Income derived in Nigeria	22,000,000
Adjusted Profit of the Company	30,000,000
Depreciation	4,000,000

Assume that Companies Income Tax rate is 30%. (10 Marks)

- b. Mr. George, an employee of Abaca Plc, arrived Nigeria on 1 September 2007, and resided in the country till 30 June 2008.

Required:

Explain how Mr. George would be treated for Tax purposes under the Personal Income Tax (Amendment) Act 2011. (2 Marks)

- c. State, in broad terms, the methods of assessing the profit of a foreign company engaged in cable or wireless undertakings. (3 Marks)
- (Total 15 Marks)**

QUESTION 6

Partnership is a relationship subsisting between two or more persons agreeing to carry on business in common with a view to making profit.

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Required:

- a. State any **FOUR** clauses that are usually inserted in a Partnership Agreement. (4 Marks)
- b. State any **TWO** issues that will likely come up between Partners in any Partnership when there is no formal Partnership Agreement. (2 Marks)
- c. Ade, Boulus and Collins who are in partnership, have agreed to share profits and losses in the ratio of 2:2:3 respectively. During the year ended 31 December 2011, their books showed a loss of ₦370,000, after accounting for the following:

	Ade ₦	Boulus ₦	Collins ₦
Salaries	120,000	137,000	250,000
Interest on Capital	24,000	30,000	22,000
Bonus	10,000	18,000	14,000

Depreciation charged during the year was ₦240,000

You are required to:

Calculate the Assessable Income of each Partner.

(9 Marks)
(Total 15 Marks)

SOLUTIONS TO SECTION A

PART I

MULTIPLE-CHOICE QUESTIONS

1. A
2. C
3. E
4. B
5. E
6. D
7. A
8. C
9. D

PATHFINDER

10. A
11. E
12. D
13. B
14. B
15. C
16. A
17. C
18. D
19. D
20. B

EXAMINERS' REPORT

The questions test various areas of the syllabus and candidates demonstrated a good understanding of the questions.

Candidates are advised to keep it-up.

PART II

SHORT-ANSWER QUESTIONS

1. Local Government
2. State Board of Internal Revenue
3. Nigerian employment
4. Federal Inland Revenue Service (FIRS)
5. It is exempted from tax
6. Lagatee
7. An Executor or Administrator
8. Adjusted profit
9. 10 percent of the total profit before deducting the donation
10. Actual
11. Balancing charge

PATHFINDER

12. Latter
13. Terminal loss
14. $\text{N}240 \text{ million} \times 30\% = \text{N}72 \text{ million}$
15. Carry Forward Loss Relief
16. Output VAT over Input VAT
17. 30 days
18. Once
19. Stamped material
20. Revised or Amended assessment

EXAMINERS' REPORT

The questions test different areas of the syllabus and candidates demonstrated a good understanding of the questions.

Candidates are advised to ensure they cover the entire syllabus in future.

SOLUTIONS TO SECTION B

QUESTION 1

(a) The main sources of Nigerian Tax Laws are:

(i) **Customary Laws**

These are native laws and customs governing the taxation of incomes, goods and properties of persons or communities within an ethnic group.

Examples include:

- *Isakole*
- *Osusu Nkwu*
- *Jangali*

PATHFINDER

(ii) Statutes law

These are tax legislations passed by Acts of the National and State Assemblies and bye-laws by Local Government authorities in a democratic government or Decrees or Edicts under military regimes.

Examples include:

- Personal Income Tax Act CAP P8 LFN 2004;
- Companies Income Tax Act CAP C21 LFN 2004;
- The Value Added Tax Act CAP V1 LFN 2004;
- The Petroleum Profits Tax Act CAP P13 LFN 2004.

(iii) Case Laws

This is the doctrine of '*stare decisis*', that is, judicial precedents. These constitute judgements pronounced by superior courts of records, namely High Courts, Appeal Courts and Supreme Courts.

These are based on principles of tax laws and their interpretations of the provisions on tax statutes binding on lower courts.

(b) Responsibility for registration for tax purposes

- (i) Federal Inland Revenue Service (FIRS) is the relevant tax authority for an incorporated company.
- (ii) State Board of Internal Revenue is the relevant tax authority for an unincorporated company.

(c) Filing of Companies Income Tax Returns

The following documents are relevant for the filing of an application for Tax Clearance Certificate of a company that has registered at the relevant tax office:

- (i) Audited financial statements for relevant tax year containing:
 - Auditors' report with the seal of the audit partner of the audit firm;
 - Balance Sheet or Statement of Financial Position signed by two directors of the Company;
 - Income Statement or Statement of Profit or Loss;
 - Directors' Report;
 - Statement of Cash Flow;
 - Statements of Value Added;
 - Notes to the Financial Statements;
 - Five-year financial summary.

PATHFINDER

- (ii) Duly completed Federal Inland Revenue Service (FIRS) Self Assessment Forms for Income and Education Taxes.
- (iii) Evidence of tax payment in full or a part of an agreed payment.
- (iv) Application form for Tax Clearance Certificate.
- (v) Tax Clearance Certificate of at least one director.
- (vi) Evidence of VAT remittance and/or filing of monthly VAT Returns.
- (d) Information disclosed in a Tax Clearance Certificate includes:
 - Name, Address and Tax Payer's Identification Number (TIN)
 - Changeable Income/Total Profit
 - Tax Payable
 - Tax paid
 - Nature of Business
 - Type of Assessment
 - Expiry date
 - Turnover
 - Serial Number of the Certificate
 - Issuing Tax Office
 - Office stamp of the issuing office and the authorised signatory

EXAMINERS' REPORT

The question tests candidates' ability to understand the basic principles of taxation.

The candidates demonstrated a good understanding of the question. Many candidates attempted the question. The commonest pitfall was the inability of the candidates to identify the documents necessary for the filing of an application for Tax Clearance Certificate.

Candidates are advised to pay attention to the theoretical aspects of the syllabus.

QUESTION 2

(a) Settlement

This is an agreement made in writing in which money is made available to another person for his/her use without any interference whatsoever.

PATHFINDER

A settlement includes any disposition, trust, covenant, agreement, arrangement or transfer of assets.

Trust

A Trust is created when an estate or property is held by a person (trustee) for the benefit of named person called beneficiaries. The trustee administers the Trust.

Estate

An Estate is the total of the properties of a person and is commonly used in executors. It also means the property of a deceased person.

(b)

ADE, BARUWA, CHIDI AND DAFUR COMPUTATION OF INCOME CHARGEABLE TO TAX IN THE HANDS OF EACH OF THE BENEFICIARIES

	ADE ₦	BARUWA ₦	CHIDI ₦	DAFUR ₦	TOTAL ₦
Share of distributable income	222,363	222,363	222,363	222,362	889,451
Add:					
Fixed Annuity	-	-	-	35,000	35,000
Discretionary payments	<u>40,000</u>	<u>30,000</u>	<u>20,000</u>	<u>15,000</u>	<u>105,000</u>
	<u>262,363</u>	<u>252,363</u>	<u>242,363</u>	<u>272,362</u>	<u>1,029,451</u>

(c)

ADE, BARUWA, CHIDI AND DAFUR ASSESSABLE TO COMPUTATION OF UNDISTRIBUTABLE INCOME ASSESSABLE TO TAX IN THE HANDS OF THE TRUSTEE

	₦	₦
Profit from trading activities	980,000	
Deduct: Capital allowances agreed	<u>22,000</u>	958,000
Interest received on Fixed Deposits		270,000
Rent from property (gross)		620,000
Other income		<u>163,000</u>
		2,011,000
Deduct: Allowable expenses:		
Dafur's fixed annuity	35,000	
Trustees' fixed remuneration	20,000	
Trustees' remuneration based on computed income ^{2.5} / _{102.5} % of (₦2,011,000 - ₦35,000 - ₦20,000 - ₦25,000)	47,098	
Allowable expenses of the Trustee	<u>25,000</u>	(127,098)

PATHFINDER

Computed Income	1,883,902
Less: Discretionary payment	<u>(105,000)</u>
Distributable income	1,778,902
Deduct: $\frac{1}{2}$ of income distributable amongst the beneficiaries	<u>889,451</u>
Net distributable income assessable to tax in the hands of the Trustee	<u>889,451</u>

EXAMINERS' REPORT

The question tests candidates' understanding of the general principles relating to taxation of Settlements, Trusts and Estates.

Many candidates attempted the question and demonstrated a fair understanding of its requirements. The commonest pitfalls were the inability of the candidates to define the terms and arrive at the computed income.

Candidates are advised to pay attention to this particular area.

QUESTION 3

(a) The Federal Inland Revenue Service Board is the sole authority for assessment and collection of tax relating to Tertiary Education Trust Fund.

(b) **Paul Ade Limited**

Computation of Income Tax Liabilities for 2012 Tax Year

	N'000	N'000
Net profit per the accounts		7,600
Add:		
Depreciation	765	
Loss on sale of fixed assets	<u>300</u>	
		<u>1,065</u>
		8,665
Deduct:		
Franked Investment Income		<u>(600)</u>
Adjusted Profit/Assessable Profit		8,065
Deduct: Capital Allowance		<u>1,000</u>
Total profit		<u>7,065</u>

PATHFINDER

Tax payable

(i)	Income tax payable	₦
	$\text{₦}7,065,000 \times 30\% =$	2,119,500
(ii)	Education tax	
	$\text{₦}8,065,000 \times 2\% =$	<u>161,300</u>
Total	=	<u>2,280,800</u>

(c) Peculiarities of withholding tax include:

- (i) The tax payer has no option as to whether to pay it or not as the person making the payment is statutorily required to deduct. Failure to deduct attracts sanctions.
- (ii) It is an advance payment of income tax and can therefore be utilised as tax credit against income tax liability of the year to which the income relates.
- (iii) It represents the final tax in certain cases, e.g. when the recipient of the income is a non-resident person.
- (iv) It is paid on specific transactions, for example, services or incomes

(d) Payment Schedule of Withholding Tax must contain the following:

- (i) Name and address of the tax payer
- (ii) Nature of the activities/services and period
- (iii) Tax Identification Number (TIN)
- (iv) Total amount payable
- (v) Rate of tax applied
- (vi) Amount of tax withheld
- (vii) Balance paid by the tax payer
- (viii) Date of payment
- (ix) Invoice number
- (x) Invoice amount

EXAMINERS' REPORT

The question tests candidates' understanding of the provisions of the law relating to Tertiary Education Trust Fund, Company Income tax and Withholding Tax. Many candidates attempted the question. Performance was above average.

PATHFINDER

The commonest pitfall was the inability of the candidates to differentiate between allowable and non-allowable deductions.

Candidates are advised to pay attention to items that are allowable as deductions and those that are not.

QUESTION 4

(a)

BALLARD RICHIE LIMITED COMPUTATION OF VAT DUE TO FIRS AS AT 31/12/2011

	₦	₦
OUTPUT VAT: Manufactured goods		3,880,000
Items purchased for resale		4,360,000
Other services		<u>1,800,000</u>
		10,040,000
Deduct:		
Input VAT		
On raw materials	1,360,000	
On merchandise items	<u>3,157,000</u>	
		<u>4,517,000</u>
(i) VAT due to FIRS for the year		<u><u>5,523,000</u></u>
(ii) Computation of outstanding VAT		
		₦
Total VAT due for the year		5,523,000
Less: Amount remitted		<u>(3,060,000)</u>
Balance outstanding		<u><u>2,463,000</u></u>

(b) Instruments that are specifically exempt from stamp duties are:

- (i) Those relating to agreements between the Federal Government and other foreign governments.
- (ii) Instruments relating to reconstruction and amalgamation
- (iii) Transactions and sales of properties of a company under liquidation arising from a compulsory winding up by a court, or voluntary winding up.

(c) Ad Valorem Duty is the duty that varies with the value of the subject matter of the instrument. Ad Valorem Duty cannot be paid more than once.

PATHFINDER

- (d) Benefits of applying computer models in tax administration include
- (i) Speed and improved efficiency on the part of tax administrators
 - (ii) Accuracy of tax computations since all forms of manual computations will be eliminated
 - (iii) Reliability of data used, since the bulk of the information used in tax computations are generated using computers
 - (iv) Consistency in the information generated and provided for public consumption
 - (v) Improved productivity as less time is spent.

EXAMINERS' REPORT

The question tests candidates understanding of Value Added Tax (VAT).

Many candidates attempted the question.

Performance was just fair.

The commonest pitfall was the poor understanding of the principles of stamp duties.

Candidates are advised to pay attention to the principles of stamp duties.

QUESTION 5

- (a) De Don Airline
Computation of Tax Payable for 2012 Assessment Year

$$\begin{aligned}\text{Adjusted Profit Ratio} &= \frac{30,000,000}{84,000,000} \times \frac{100}{1} \\ &= 35.71\% \\ \text{Depreciation ratio} &= \frac{4,000,000}{84,000,000} \times \frac{100}{1} \\ &= 4.76\%\end{aligned}$$

PATHFINDER

Applying the ratios to income derived in Nigeria, we have

	₦
Income derived in Nigeria	<u>22,000,000</u>
35.71% thereof (35.71% x 22m)	7,857,143
4.76% thereof as depreciation (4.76 x 22m)	1,047,619

Profit liable to Nigerian Tax is calculated thus:

	₦
Adjusted profit from Nigerian operations	7,857,143
Less: Capital allowances	<u>(1,047,619)</u>
Profit liable to Nigerian Tax	<u>6,809,524</u>

		₦
Income tax liability at 30% x ₦6,809,524	=	2,042,857.20
Tertiary Education Tax (2% x ₦7,857,143)	=	<u>157,142.90</u>
Total		<u>2,200,000.10</u>

(b) **MR. GEORGE**

ASSESSMENT TO TAX UNDER NON-RESIDENT STATUS

Under the Personal Income Tax (Amendment) Act 2011, Mr. George was in Nigeria for only 122 days (1 September 2007 to 31 December 2007) in 2007 Year of Assessment. He is, therefore, deemed not to be resident in Nigeria during that year.

In 2008, he was in Nigeria for 182 days (i.e. 1st January to 30th June 2008). He is also deemed not to be resident in Nigeria during that year.

Under Personal Income Tax (Amendment) Act 2011, to be resident in Nigeria, a tax payer must stay more than 183 days.

- (c) Where a foreign company is engaged in cable or wireless undertaking, it shall be assessable to tax as though it operated ship or aircraft and the provisions of the preceding year shall apply.

In assessing the company to tax, the following steps should be followed:

- (i) Ascertain the income derived in Nigeria as defined in Sections 12 and 13 of CITA.
- (ii) Compute the global adjusted profit of the foreign company.

PATHFINDER

- (iii) Compute the global adjusted profit ratio (GAPR).
- (iv) Compute the depreciation relief ratio.
- (v) Compute the assessable profit for Nigeria tax purposes by applying the adjusted profit on the income derived in Nigeria; i.e. $\text{GAPR} \times \text{Income derived in Nigeria}$.
- (vi) Compute capital allowance by applying depreciation ratio on the income derived in Nigeria, i.e. $\text{Depreciation Relief Ratio} \times \text{Income derived in Nigeria}$.
- (vii) Compute tax liability by deducting capital allowance from assessable profit and apply the company income tax rate.

EXAMINERS' REPORT

The question tests candidates' understanding of the taxation of special businesses. Most of the candidates attempted the question but performance was very poor.

The commonest pitfall was the inability of the candidates to understand the ratios applicable to the taxation of special businesses.

Candidates are advised to pay special attention to this area.

QUESTION 6

(a) CLAUSES THAT ARE USUALLY INSERTED IN A PARTNERSHIP AGREEMENT

- (i) Each partner's capital contribution
- (ii) Interest (if any) to be paid to each partner on his capital
- (iii) Salaries (if any) to be paid to partners
- (iv) Agreed sharing ratio of profits and losses
- (v) Rate of interest on drawings
- (vi) Rate of interest on loan to a partner
- (vii) Procedure for introducing new partners to the partnership
- (viii) Provision for the retirement or death of a partner

PATHFINDER

(b) Issues that are likely to arise where there is no formal partnership agreement

- (i) How to share the profits and losses of the partnership
- (ii) How partners should be remunerated

(c) **Ade, Boulus and Collins in Partnership**
Computation of Assessable Income of each Partner for 2012 Tax Year

	Ade ₦	Boulus ₦	Collins ₦	Total ₦
Salaries	120,000	137,000	250,000	507,000
Interest on Capital	24,000	30,000	22,000	76,000
Bonus	<u>10,000</u>	<u>18,000</u>	<u>14,000</u>	<u>42,000</u>
Total Amount	154,000	185,000	286,000	625,000
Share of Adjusted loss	<u>(37,143)</u>	<u>(37,143)</u>	<u>(55,714)</u>	<u>(130,000)</u>
Assessable income of each partner	<u>116,857</u>	<u>147,857</u>	<u>230,286</u>	<u>495,000</u>

Workings

W1 Computation of Adjusted Loss	₦
Loss as per accounts	370,000
Less depreciation	<u>(240,000)</u>
Adjusted loss	<u>130,000</u>

W2 Share of Adjusted Loss	₦
Adu $\frac{2}{7} \times 130,000$	= 37,143
Bade $\frac{2}{7} \times 130,000$	= 37,143
Chuks $\frac{3}{7} \times 130,000$	= <u>55,714</u>
	<u>130,000</u>

EXAMINERS' REPORT

The question tests candidates' understanding of the partnership principles and computation of tax payable by partners in a partnership.

Most of the candidates attempted the question and performance was above average.

The commonest pitfall was the poor presentation of the computation. Candidates are advised to pay attention to computation layout for partnership.

PATHFINDER

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

INTERMEDIATE EXAMINATION - MAY 2013

BUSINESS COMMUNICATION & RESEARCH METHODOLOGY

Time Allowed: 3 hours

SECTION A: PART I MULTIPLE-CHOICE QUESTIONS (20 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. One advantage of the manuscript speech is that it is suitable for
 - A. Presenting numeric information and preserving copies for future use
 - B. Maintaining eye contact with the audience
 - C. Spontaneity in delivery
 - D. Display of oratory prowess
 - E. Direct reference to speaker and audience
2. The barrier that occurs when the speaker or listener is unable to differentiate between such words like “feet” and “fit”, “day” and “they” is
 - A. Semantic
 - B. Physiological
 - C. Phonological
 - D. Cultural
 - E. Psychological
3. The following are parts of a report EXCEPT
 - A. Title page
 - B. List of interviewers
 - C. Terms of reference
 - D. Appendices
 - E. Recommendations

PATHFINDER

4. The test statistic for testing a hypothesis for sample means using small sample, when the population standard deviation is not known is
- A. z
 - B. t
 - C. F
 - D. P
 - E. χ^2
5. An Analysis of Variance (ANOVA) test was conducted with respect to the population means. The null hypothesis was rejected. This indicates that
- A. There were too many degrees of freedom
 - B. There is no difference between the population means
 - C. There is a difference between at least two population means
 - D. A larger sample should be selected
 - E. A smaller sample size should be selected
6. All the following are examples of one tail test about a population mean **EXCEPT**
- A. $H_0: \mu > \mu_0$
 - B. $H_0: \mu \leq \mu_0$
 - C. $H_0: \mu < \mu_0$
 - D. $H_0: \mu \geq \mu_0$
 - E. $H_0: \mu = \mu_0$
7. A car manufacturing company produces three types of cars, each of which can be identified by the model. These characteristic models can be classified as data
- A. Numeric
 - B. Categorical
 - C. Bank
 - D. Ordinal
 - E. Discrete

PATHFINDER

8. The reliability test that entails correlating collected data with those from the same questionnaire collected under almost the same condition is the
- A. Test-re-test
 - B. Internal consistency
 - C. Alternative form
 - D. Criterion form
 - E. Equivalent form
9. Questions meant for respondents in questionnaire administration that condition them to respond the same way are questions.
- A. Purposive
 - B. Structured
 - C. Category
 - D. Multiple choice
 - E. Fixed alternative
10. Non-probability sampling technique is **NOT** appropriate when
- A. Population is finite
The random sampling technique does not guarantee the inclusion of typical cases
 - B. Centralisation of results is not necessary
 - C. The cost of probability sampling is high
 - D. Probability sampling is time consuming
11. Which of the following is an example of tertiary literature?
- A. Appendices
 - B. Indexes
 - C. Journal articles
 - D. Newspaper publications
 - E. Software
12. "He is definitely giving you the eye" means
- A. He is donating an eye to you
 - B. He is casting a spell on you
 - C. He finds you attractive
 - D. He is looking you straight in the eye
 - E. He is ashamed of you

PATHFINDER

13. 'Send' and 'forward' are
- A. Antonyms
 - B. Synonyms
 - C. Holophrasis
 - D. Holograms
 - E. Holocaust
14. Which of the following describes the gossip chain in the grapevine networks?
- A. Each person tells another
 - B. Some tell selected others
 - C. Each person randomly tells others
 - D. Nobody tells anybody
 - E. One person tells all
15. Written communication is characterised by the following **EXCEPT**
- A. Permanent records
 - B. Avoidable personal contact
 - C. Immediate feedback
 - D. Accuracy of expression
 - E. High cost of production
16. The scale of measurement that has all the features of an interval scale plus an absolute zero point is scale
- A. Reliable
 - B. Nominal
 - C. Industrial
 - D. Ratio
 - E. Ordinal
17. Which of the following is **NOT** considered as an impediment to research in Nigeria?
- A. Inadequate funding
 - F. High level of illiteracy
 - G. Inadequate infrastructural facilities
 - H. Insufficient statistical data
 - I. Availability of research personnel

PATHFINDER

18. The maximum probability of committing Type I error is
- A. Confidence level
 - B. Significance level
 - C. Degree of freedom
 - D. Critical value
 - E. Confidence interval
19. The following are sources of research problems **EXCEPT**
- A. Practical experience
 - B. References
 - C. Existing theories
 - D. Contemporary issues
 - E. Consulting experts in relevant fields
20. All the following are statistical tools used in analysing data **EXCEPT**
- A. JMP
 - B. SPSS
 - C. Stragraphics
 - D. Microsoft Word
 - E. SAS

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. The internal mail in an organisation is called
2. A research topic is "The impact of advertising expenditure on the sales of an organisation". The variable sales is referred to as
3. A research design in which the researcher is interested in observing what is happening to the sample elements without controlling them is called
4. A conjectural statement "the average weight of tablet soaps produced by Olodo Company is 25 grammes" is an example of hypothesis.

PATHFINDER

5. The endpoints of a confidence interval are called
6. A value at the boundary between the region where the null hypothesis is not rejected and the region where it is rejected is called
7. When information flows from the sender to the receiver only, the process of communication is said to be
8. Another word for the suitability of language forms used in specific communication situations is
9. The word-stock of a language from which users draw is
10. Data taken from electronic archives are regarded as being sourced from online
11. The following referencing "Bolus, B. (2013). Today and Tomorrow. 9(a), pp 2-10. Retrieved April 10, 2013, from UMW Accounting Periodical On Disc" is a referencing format for full text journal article from
12. Detailed information that is too long or would seem inappropriate for the main body of the report is placed in the
13. Data obtained from sources like government records, company records and trade and business associations are said to be obtained through sources.
14. A word or phrase used in a different way from its usual meaning in order to create a particular mental picture or effect is a
15. A section of a piece of writing consisting of several sentences dealing with a single subject is a
16. A stretch of utterance produced as a result of a single speech effort is a
17. "Mr. Akinade Chukwu reported the speech verbatim." The underlined word in the sentence means
18. The movement that a speaker makes with the hands, the head and the face to show particular meanings is

PATHFINDER

19. The Director of Research performs an analysis of variance to test for difference in means of crop yield. Two mean square of the yields data is calculated thus $MSTR = 42,455.86$ and $MSE = 1691.92$. The F statistic is
20. A certain accountant has two sessions of training accountants in a year. One session had 20 candidates and the other had 100 candidates. What is the mean number of candidates per year?

SECTION B: ATTEMPT ANY FOUR QUESTIONS (60 Marks)

QUESTION 1

Reports are factual, objective documents that serve legitimate business purposes. They may range from a few pages to hundreds of pages and may be in printed form, a letter, a memo or a manuscript. The length, format, style or organisation of reports depends on who originates them and for the purpose(s) reports want to serve.

You are required to:

Explain any **FIVE** reasons why reports are written. (15 Marks)

QUESTION 2

A sample of 10 families in Lambe Local Government Area revealed the following figures for family size and the amount spent on food per meal.

Family size	Amount spent on food (₹)
3	99
6	104
5	151
6	129
6	142
3	111
4	74
4	91
5	119
3	91

PATHFINDER

Required:

- a. Calculate the correlation co-efficient and interpret your result. (7 Marks)
 - b. Calculate the coefficient of determination and interpret your result. (2 Marks)
 - c. If at 5% level of significance, the table value of student-t is given as 1.861, determine whether there is an association between the amount spent on food and the family size. (6 Marks)
- (Total 15 Marks)**

QUESTION 3

Horizontal and diagonal channels of communication are developed in order to correct the weaknesses in vertical system of communication.

You are required to:

- a. Identify and explain any **THREE** of the above-stated weaknesses. (6 Marks)
 - b. Explain the term “horizontal communication.” (3 Marks)
 - c. Present **THREE** advantages and **THREE** drawbacks of horizontal communication (6 Marks)
- (Total 15 Marks)**

QUESTION 4

- a. Mr. Chuchulia is considering starting an accounting firm in Lagos. However, in order to know how feasible this venture will be, he needs to collect data from different sources.

You are required to:

Identify and explain the **TWO** main sources of data collection. (6 Marks)

- b. Mr. Chuchulia has been informed that for him to gather valuable data, he needs to make use of a valid measure.

You are required to:

- i. Identify any **THREE** types of validity he can use. (3 Marks)

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- ii. Write short notes on the **THREE** types of validity identified in (b)(i) above.

(6 Marks)

(Total 15 Marks)

QUESTION 5

Information Technology (IT) has made life bearable despite its negative impact on the society. The researcher has found IT as a veritable tool for advancement and development.

You are required to:

Explain any **THREE** difficulties a researcher encounters when using Information Technology to collect and analyse data.

(15 Marks)

QUESTION 6

Mr. Boro is a researcher in an organisation. As part of his yearly report to the Chief Executive Officer of the company, he is required to present an analysis of the salaried employees. There are 1000 employees from which he selected a random sample of 30. The following information were then collected in order to know how they affect the monthly salary: monthly salary (Y), length of service (X_1) Age (X_2), gender (X_3) and nature of job (X_4).

The analysis was run on SSPS package and the output is given thus:

Predictor	Coef	Stdev	t-ratio	P
Constant	651.9	346.3	1.89	0.0071
Service	13.422	5.125	2.62	0.015
Age	- 6.710	6.349	- 1.06	0.301
Gender	205.65	90.27	2.28	0.032
Job	- 33.45	89.55	- 0.37	0.712

ANALYSIS OF VARIANCE

SOURCE	DF	SS	MS	F	P
Regression	-	1066.330	266708	4.77	0.005
Error	25	-	55946		
Total	29	2465481			

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You are required to:

- a. Determine the DF for regression and SS for error. (3 Marks)
 - b. Formulate the regression equation using salary as the dependent variable and the other four variables as independent variables. (3 Marks)
 - c. Calculate the value of R^2 and comment on this value to the Chief Executive Officer. (5 Marks)
 - d. Conduct a joint test of hypothesis whether any of the independent variables are significant. (3 Marks)
 - e. State the most significant variable. (1 Mark)
- (Total 15 Marks)**

SECTION A

PART I

MULTIPLE CHOICE QUESTIONS

- 1. A
- 2. C
- 3. B
- 4. B
- 5. C
- 6. E
- 7. B
- 8. B
- 9. B
- 10. A
- 11. B
- 12. C
- 13. B
- 14. E
- 15. C
- 16. D

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- 17. E
- 18. B
- 19. B
- 20. D

EXAMINERS' REPORT

This section tests general knowledge of use of English, Business Communication Skills, Statistics and Research Methodology.

The performance was good as many candidates scored above 55% of the allocated marks.

About half of the candidates did not display deep knowledge of statistics and Research Methodology and their use of English and Communication Skills was poor.

PART II

SHORT-ANSWER QUESTIONS

- 1. Memo/Memorandum
- 2. Dependent variable
- 3. Survey design
- 4. Null hypothesis
- 5. Limits/boundaries
- 6. Critical value/table value
- 7. One way/uni directional
- 8. Register
- 9. Lexicon vocabulary
- 10. Database
- 11. CD-ROM
- 12. Appendix
- 13. Secondary
- 14. Metaphor
- 15. Paragraph
- 16. Discourse

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17. Word for word
18. Body language/kinesics
19. $F\text{-stat} = \frac{42,455.86}{1691.92} = 25.09$
20. Mean, $\bar{X} = \frac{20}{2} + \frac{100}{2} = \frac{120}{2} = 60$

EXAMINERS' REPORT

This section tests candidates' knowledge of use of English, Business Communication Skills and Statistics.

The performance was good as many candidates scored above 45% of the allocated marks.

SECTION B

QUESTION 1

Reports are written for the following reasons:

- i. To report progress: Reports are written to report progress on specific tasks, projects and assignments to management. This is a reason why reports are placed on the upward channel. Reports on progress and on-going issues and tasks are always sent to management to show performance and in order to be accountable. Such reports place management in a good position to run the organisation.
- ii. For performance appraisal: Employee performance is appraised through reports. The way individuals do their job, their work place behaviour and character are captured in reports that quantify individual qualities and performance. This enables management to rate her employees according to their on-the-job performance. Such rating is then used for employee retention and promotion.
- iii. For situational reports: Reports are written to provide information to management and keep her abreast of the state of things in a unit, a branch and the entire organisation. Management needs to know how things stand at different levels of the organisation in order to be on top of the situation and take appropriate decisions.

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- iv. To aid decision-making: At different juncture in the life of an organisation, there is the need to take decisions. Decisions cannot be made without relevant input. Reports are written in order to serve as a basis for decision making. Reports then become the input that provide the elements that are utilised in the process of decision-making as they expose the actual state of things and show what is needful and necessary.
- v. To report special occurrences: Reports are written to bring unusual events to the attention of management. Not all events and occurrences are routine. When some things that are not ordinary happen, there is the need to bring them to the knowledge of management.
- vi. To seek change: Reports are written in organisations in order to cause the organisation to follow a new, uncharted path. New ideas are always cropping up and new developments that can be brought into the operations of the organisation may be proposed by workers to management. The means for doing this is through reports. Reports provide adequate information on such new matters and situate the development in the context of the organisation, thus equipping management with required information.

EXAMINERS' REPORT

This question tests candidates' knowledge of the importance, reasons and usefulness of report writing in an organization.

The performance was very good as many candidates scored above 60% of the allocated marks.

QUESTION 2

Family Size (X)	Amount Spent on food (Y)	XY	X ²	Y ²
3	99	297	9	9801
6	104	624	36	10816
5	151	755	25	22801
6	129	774	36	16641
6	142	852	36	20164
3	111	333	9	12321
4	74	296	16	5476
4	91	364	16	8281

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5	119	595	25	14161
3	91	273	9	8281
45	1111	5136	217	128743

The product moment correlation co-efficient is given as

$$\begin{aligned}
 r &= \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}} \\
 &= \frac{10(5136) - (45)(1111)}{\sqrt{[10(217) - (45)^2][10(128743) - (1111)^2]}} = \frac{51360 - 49995}{\sqrt{(2170 - 2025)(1287430 - 1234321)}} \\
 &= \frac{1365}{\sqrt{(145)(53109)}} = \frac{1365}{\sqrt{7700805}} = \frac{1365}{2775.03} \\
 r &= 0.49
 \end{aligned}$$

Interpretation: It implies that there is a low positive linear relationship between family size and amount spent on food. This further implies that as family size increases, the amount spent on food increases.

b. The coefficient of determination (r^2) is $(0.49)^2 = 0.24$

Interpretation: This implies that only 24% variation in the amount spent on food is explained by variation in the family size.

c. Null hypothesis (H_0): $P = 0$ (There is no relationship between family size and amount spent on food).

Alternate hypothesis (H_1): $P \neq 0$ (There is a relationship between family size and amount spent on food).

The test statistic is

$$\begin{aligned}
 t &= \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \\
 &= \frac{0.49\sqrt{10-2}}{\sqrt{1-(0.49)^2}} = \frac{0.49\sqrt{8}}{\sqrt{1-0.24}} = \frac{(0.49)(2.83)}{0.87} = \frac{1.39}{0.87} \\
 t &= 1.60
 \end{aligned}$$

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Decision Rule: Reject H_0 if t-calculated is greater than the t-tabulated

Conclusion: There isn't enough reason to reject H_0 , since t cal (1.60) is less than t-tabulated (1.861). This implies that there is no relationship between family size and the amount spent on food.

EXAMINERS' REPORT

The question tests the statistical aspect of research using correlation analysis, coefficient of determination computations and interpretations. The candidates' level of performance is about 50%.

The major pitfall of candidates is their inability to test for the correlation using the test-statistics required and they were unable to interpret the result.

It is recommended that candidate be encouraged to use relevant study-test materials provided by the Institute.

ALTERNATIVE SOLUTION TO QUESTION 2

Using the Spearman's Rank Correlation Co-efficient

$$R = 1 - \frac{6 \sum d^2}{n(n^2 - 1)}$$

Where d is the difference in the rankings of the variables, and

n = number of observations

X = family size, Y = amount spent on food

R_x = Ranking of X values

R_y = Ranking of Y values

X	Y	R_x	R_y	$d = R_x - R_y$	d^2
3	99	9	7	2	4
6	104	2	6	-4	16
5	151	4.5	1	3.5	12.25
6	129	2	3	-1	1
6	142	2	2	0	0
3	111	9	5	4	16
4	74	6.5	10	-3.5	12.25
4	91	6.5	8.5	-2	4
5	119	4.5	4	0.5	0.25
3	91	9	8.5	0.5	<u>0.25</u>
					<u>66</u>

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$$\begin{aligned} R &= 1 - \frac{6(66)}{10(100-1)} = 1 - \frac{6(66)}{10(99)} \\ &= 1 - \frac{396}{990} \\ &= 1 - 0.4 \\ &= 0.6 \end{aligned}$$

The value of R differs from the previous values got using product moment correlation coefficient technique because of the ties in the above table.

Interpretation: This implies that there is a positive linear relationship between family size and amount spent on food.

QUESTION 3

- (a) The weaknesses include:
- (i) It takes too long a time for a message to get to its destination, particularly when the chain of command is lengthy.
 - (ii) The risk of error and distortion if the message is orally transmitted.
 - (iii) The vertical system of communication is too inflexible to accommodate emergencies.
 - (iv) Authoritarian attitude to the lower ranks may elicit uncooperative attitude from shop floor workers or reluctant acceptance of communication.
- (b) Horizontal refers to information exchange between departments or functional units or personnel at the same level of authority as a means of coordinating activities or efforts. The managers of the same level use horizontal communication to share ideas to help the organisation to work better in attaining its set objectives. It helps organisations in developing team work and promoting group coordination. It is not as formal or structured as vertical communication. It is often carried out through informal discussions, telephone calls, memos and routine meetings.

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(c) Advantages of horizontal communications include:

- (i) Horizontal communication encourages interrelations which boost morale and zeal for the execution of the task at hand.
- (ii) It encourages good communication between different departments.
- (iii) It facilitates coordination of tasks.
- (iv) It is used to carry out day-to-day business of the organisation.

Disadvantages include:

- (i) Decisions are hard to reach because departmental managers have equal powers.
- (ii) It can cause in-house fighting if differing opinions boil over.
- (iii) Demarcation lines between departments promote the doctrine of exclusivity of function which says, for example, that accounting belongs to the accounts departments only. This can lead to information hoarding that is harmful to the overall interest of the organisation.
- (iv) Nobody has the final say or decision in horizontal communication.
- (v) Horizontal communication may be hampered by language problems between technical and line staff of an organisation as technical language may be a breach in their communication effort.

EXAMINERS' REPORT

This question tests candidates' knowledge of organizational system of communication. The question requires candidates to:

- a. identify and explain three weak points of vertical communication;
- b. explain horizontal communication;
- c. present advantages and drawbacks of horizontal communications.

Candidates performed poorly in this question, as majority of those that attempted it scored about 45% of the mark allocated.

The major pitfalls discovered in some candidates' answers included

- Inability to distinguish between horizontal and vertical systems of organizational communication.

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- Crass ignorance of candidates about weak and strong points of vertical and strong points of horizontal and vertical communication.

It is recommended that candidates should seek knowledge from a wide variety of standard texts on organizational communication.

QUESTION 4

a. The two main sources of data are:

- i. Primary source
- ii. Secondary source

Primary sources of data:

- i. These are data sourced directly by the researcher.
- ii. They are data obtained through the direct observation of events, manipulation of variables and through the use of research instruments like the questionnaire.
- iii. Examples of primary sources of data are:
Original documents, reports of meetings, photographs, questionnaire etc.

Secondary sources of data:

- i. These are data that have already been processed by various agencies before they are made available to the user.
- ii. They include all types of information from the primary sources which have been recorded, reported or supplied by someone else.
- iii. They are refined pieces of primary data.
- iv. Examples of secondary sources of data are data obtained from institutions, journal articles, books, magazines, newspapers and other publications.

b. The types of validity measures are:

- i. Face validity

This refers to the extent to which a measurement instrument looks as though it tests/measures what it was designed to measure.

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ii. Predictive validity

This deals with the ability of a measure to make accurate predictions. It reflects how adequately a measure can be used to infer an individual's value on some criteria.

iii. Content validity

This deals with how adequately the content of a test/measurement instrument samples the knowledge, skills or behaviours that the measurement instrument is intended to measure.

iv. Construct validity

This refers to the extent to which a measurement instrument actually measures the presence of those constructs it is intended to measure.

v. Concurrent validity

This deals with the extent to which a measurement instrument correlates well with a well-known standard instrument, which can be used for the same purpose.

EXAMINERS' REPORT

Part (a) tests candidates' understanding of sources from which research data/information are collected, whilst part (b) tests candidates' understanding of how to make data gathering instrument valid.

The performance level was average as majority of the candidates that attempted the question scored about 50% of the mark allocated.

- The pitfall was inadequate preparation by many candidates.
- Confused knowledge of the concept (language) of Business Communication and Research Methods;

It is recommended that good coverage of the Syllabus is very important.

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QUESTION 5

Difficulties encountered by a researcher using Information Technology (IT)

- a. Access to computing resources: Information Technology is not equally accessible to all researchers who could benefit from its use. This happens for a variety of reasons such as MODEM, bandwidth, and internet facilities and in the end it all boils down to financial constraints. Not all academics or research institutions have access to network. In addition, access to network can be expensive, not everyone who wants it can afford it.

- b. Finding the right software/software privacy:

Software that is commercially available is often unsuitable for the specialised needs of the researcher. Some software that are available are pirated. They do not serve the purpose for a long time before they crash.

- c. Transmitting data over network at high speed or network bandwidth problem.

Transmission is unreliable. Researchers often encounter delays and incur extra costs to compensate for noise on high speed network. Technology solution such as optical fibre for short distance transmission.

- d. Irregular supply of electricity

The irregular supply of electricity has affected effective research and development. Constant power cut and high voltage of electricity has damaged many equipment. Equipment such as computer, printer and scanner which are sensitive to high voltage have been damaged. In some cases, no electricity to power those equipment. Experiment cannot be conducted in the laboratory under high voltage or where electricity is not available.

- e. Level of literary in computer

The level of literary in case of computer in research, publishing and communication is very low. Many people are not used to the packages in the system. The current trend of development requires high skill in the use of software, writing programmes to solve problems and developing numerical solutions.

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EXAMINERS' REPORT

The question tests candidates' knowledge in Information Technology as it applies to Research Methodology. The candidates' level of performance was good as many candidates scored above 60% of the allocated mark.

The major pitfall of candidates was their inability to relate the concept of information technology to research. This was evident in the use of language, as candidates were unable to use technical terms appropriately. It is therefore recommended that candidates be exposed to practical application of IT in Research Methods.

QUESTION 6

- (a) The degree of freedom for regression is Number Predictor – 1 i.e.

$$K - 1 = 5 - 1 = 4$$

OR Df total – Df error i.e.

$$29 - 25 = 4$$

Sum of squares for error

$$= \text{Sum of square total} - \text{sum of square of regression}$$

$$= 2465481 - 1066.330$$

$$= 2464414.67$$

- (b) The multiple linear regression equation is

$$Y = 651.9 + 13.422X_1 - 6.710X_2 + 205.65 X_3 - 33.45 X_4$$

Where:

X_1 = Length of service

X_2 = Age

X_3 = Gender

X_4 = Nature of job

Y = Monthly salary

- (c) R^2 , the coefficient of determination

$$= \frac{\text{Sum of squares regression} \times 100}{\text{Sum of squares total} \quad 1}$$

$$= \frac{SSR \times 100\%}{SST}$$

$$= \frac{1066.330 \times 100}{2465481 \quad 1}$$

$$= 0.043\%$$

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Interpretation: It implies that 0.043% variation in employees' monthly salary can only be explained by the four independent variables leaving 99.95% to unexplained factors. This means that the four independent variables are not jointly related to the dependent variable.

- (d) H_0 : The four factors are not different in affecting the monthly salary
 H_1 : The four factors are different (at least one of them) in affecting the monthly salary.

Decision Rule:

$$H_0: B_1 = B_2 = B_3 = B_4 = 10$$

$$H_1: B_1 \neq B_2 \neq B_3 \neq B_4 \neq 10$$

Reject H_0 if $P - \text{value} < 0.05$; otherwise accept H_0 , (Assume significance level = 0.05)

Conclusion: From the e-table, since the $P - \text{Value } 0.005 < 0.05$, H_0 is rejected, which implies that at least one of the independence variables has a significant effect on the monthly salary.

- (e) The most significant factor is length of service because it has the least $P - \text{Value}$ of 0.015.

EXAMINERS' REPORT

The question tests the following:

- Knowledge and use of regression analysis
- Use of computer package (SPSS) to conduct regression analysis
- Understanding and interpreting computer outputs

The performance level was very poor as many candidates scored below 20% of the allocated mark.

The major pitfalls can be stated as follows:

- Poor understanding of R^2 : Majority of the candidates could not define and explain R^2
- Statement of hypothesis: Many candidates could not write down the correct hypothesis to be tested
- Decision rule: Many candidates could not use the ℓ value to decide whether or not to reject the null hypothesis

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Candidates are encouraged:

- To learn the use of statistical packages such as SPSS for data analysis.
- To focus more on Regression Analysis and how to interpret the result.