

# THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

# PATHINDER

**MAY 2014 INTERMEDIATE** 

**Question Papers** 

**Suggested Solutions** 

Plus

**Examiners' Reports** 

#### **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 edited so that some principles or their application 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 EXAMINATION – MAY 2014**

#### **COSTING AND QUANTITATIVE TECHNIQUES**

Time Allowed: 3 hours

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

#### ATTEMPT ALL QUESTIONS IN THIS SECTION

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

- 1. Prediction of cost behaviour is the basis for
  - A. Marginal costing
  - B. Stock recording and control
  - C. Functional budget
  - D. Capital investment appraisal
  - E. Total costing
- 2. Information about a hospital in Lagos in the previous year is as follows:

Number of beds......1,500Number of in-patients......24,000Number of out-patient visits......78,500Bed occupation percentage......75%

You are required to calculate the average stay in the hospital.

- A. 20 days
- B. 19 days
- C. 18 days
- D. 17 days
- E. 16 days

- 3. In year 2013, 400 units of Large brand were produced and sold at ₩70 per unit. Total production cost was ₩48,600. From the main production process, 50kg of Little brand were produced and sold at ₩5 per kg. Distribution costs of ₩1.50 per kg were incurred for Little brand. What is the net production cost?
  - A. ₩45,425
  - B. ₩46,755
  - C. ₩47,325
  - D. ¥48,425
  - E. ₩49.425
- 4. The budgeting process is
  - A. Purely a marketing function
  - B. Purely a production function to forestall product deficiency
  - C. Purely a purchasing function
  - D. An overall company function moderated by the Accountant
  - E. Purely an accounting function
- 5. An ideal standard is
  - A. Attainable only under the most favourable condition
  - B. Easily attainable
  - C. Attainable if all concerned can be dedicated
  - D. Not attainable
  - E. Meant for statistical process only
- 6. The point of focus for all costs relating to a particular activity in an activitybased costing system is known as
  - A. Activity
  - B. Production
  - C. Cost driver
  - D. Cost pools
  - E. Cost apportionment

- 7. Costs of quality products are those costs incurred to prevent poor quality from occurring. Which **ONE** of the following is included?
  - A. Prevention costs
  - B. Appraisal costs
  - C. Internal failure costs
  - D. External failure costs
  - E. Expected failure costs
- 8. Which of the following is **NOT** a fixed cost?
  - A. Machinery depreciation
  - B. Factory rental
  - C. Advertising
  - D. Factory Manager's salary
  - E. Supplies and other indirect materials
- 9. The main reason for providing for notional charges is to
  - A. Be kept in a bank account for future use
  - B. Reward the capital provider and the landlord
  - C. Bring out a more realistic profit figure
  - D. Reduce distributable profit
  - E. Differentiate the cost accounts from the financial accounts
- 10. Break-even point is the point where
  - A. Return on investment is low
  - B. Contribution is achieved
  - C. Variable costs are highest
  - D. Fixed cost is at optimum
  - E. Contribution equals fixed cost
- 11. In a cake manufacturing company, the most appropriate cost unit is
  - A. Cake
  - B. Flour
  - C. Batch produced
  - D. Kilogram produced
  - E. Production run

- In a process costing system, scrap in an accounting period is charged to
  - Job or product A.
  - B. Cost centre
  - C. Scrap account
  - D. Profit and loss account
  - **Production control** E.
- 13. If matrices

$$A = \begin{pmatrix} 1 & 2 \\ 2 & 3 \end{pmatrix} \quad \text{and} \qquad B = \begin{pmatrix} 2 & 0 \\ 1 & 1 \end{pmatrix},$$

then  $C = B \times A$  is

- D.  $\begin{pmatrix} 2 & 5 \\ 3 & 4 \end{pmatrix}$ E.  $\begin{pmatrix} 2 & 0 \\ 3 & 5 \end{pmatrix}$
- 14. The conditional probability of event  $E_2$  on event  $E_1$  is the probability that
  - E<sub>2</sub> will not occur A.
  - E<sub>1</sub> will not occur B.
  - E<sub>2</sub> occurs given that E<sub>1</sub> has occurred
  - $E_1$  occurs given that  $E_2$ has occurred
  - Neither E<sub>1</sub> nor E<sub>2</sub> will occur

15. The following table shows the various transportation costs, the demand and supply quantities. Use the North-West Corner method to obtain the transportation cost.

	A	В	С	D
Х	1	2	1	250
Y	1	1	2	450
Z	1	1	1	500
D	300	500	400	1,200

- A. ₩17,150
- B. ₩19,650
- C. ¥19,850
- D. ₩19,950
- E. ₩19,990
- **16.** If  $P = \{11, 13, 17, 21, 32, 34\}$  and  $Q = \{10, 12, 13, 20, 21\}$ , then n(P-Q) is
  - A. 1
  - B. 2
  - C. 3
  - D. 4
  - E. 5
- 17. The prices of a commodity x for years 2000 and 2001 are  $\frac{1}{2}$ 200 and  $\frac{1}{2}$ 250 respectively. If year 2001 is taken as the base year, then the price index of x is
  - A. 80%
  - B. 70%
  - C. 60%
  - D. 50%
  - E. 40%

- 18. The best replacement point in the replacement of items that deteriorate is the year with the minimum
  A. Average annual cost
  B. Maintenance cost
  C. Total cost
  - D. Repair costE. Operating cost
  - L. Operating cost

19. When the marginal revenue equals the marginal cost, then the

- A. Profit is minimised
- B. Profit is equal to zero
- C. Profit is maximised
- D. Loss is minimised
- E. Loss is maximized
- 20. Which of the following is a linear constraint of a standard maximised linear programming problem?
  - A. 2x + 3y = 5
  - B. 2x + 3y < 5
  - $C. \quad 2x + 3y \le 5$
  - D. 2x + 3y > 5
  - $E. \quad 2x + 3y \ge 5$

SECTION A: PART II SHORT-ANSWER QUESTIONS

(20 Marks)

#### ATTEMPT ALL QUESTIONS IN THIS SECTION

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

- 1. In analysing costs, it is necessary to separate total cost into its.....elements.
- 2. Operating cost is related to the unit of .....
- 3. When two or more products arise from a process, the product with a relative small value is termed ......

4.	The aggregate budget which incorporates all other functional budgets is referred to as
5.	The difference between the actual hours worked and the actual hours paid for
6.	is  The latest approach as opposed to traditional absorption costing in absorbing
	overhead is
7.	The process of establishing the time for a qualified worker to carry out a
	specified job at a specified level of performance is
8.	Costs which could be avoided by a decision are called
9.	The principal ledger in cost accounting is also referred to as
10.	Total contribution required for a target profit is the addition ofand
11.	A company's breakeven point is 6,000 units per annum. The selling price is
	₩90 per unit and the variable cost is ₩40 per unit. What is the annual fixed
	cost?
12.	The method of inventory pricing which assumes that material is charged out
	at the price of the most recent batch until a new batch is received
	is
13.	
	Programming problem is known as
14.	In the interpretation of elasticity of demand ( $\boldsymbol{e}_{\scriptscriptstyle d}$ ), the demand is elastic when
	$\boldsymbol{e}_{\scriptscriptstyle d}$ is and inelastic when it is
15.	An event whose probability is one (1) is said to be aevent while
	any event whose probability is zero (0) is called an
	event.
16.	In a typical Euler - Venn diagram, the circle represents a while the
	rectangle represents a

17.	The	two	types	of	replacement	policies	in	items	that	fail	suddenly	are
and				d								

18. Use the information in the table below to determine the quantity index for the year 1997 if 1996 is taken as the base year:

Year	1995	1996	1997
Quantity	12	20	27

- 19. The activities on the critical path are referred to as \_\_\_\_\_\_
- 20. If matrices A and B are defined by

$$A = \begin{pmatrix} 3 & 4 \\ 2 & 0 \end{pmatrix} \text{ and } B = \begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}, \text{ then}$$

$$(A \times B)^{t} \text{ is } \underline{\hspace{2cm}}$$

**SECTION B:** 

ATTEMPT ANY FOUR QUESTIONS

(60 Marks)

# SUB-SECTION I: COSTING – ATTEMPT TWO QUESTIONS FROM THIS SUB-SECTION QUESTION 1

- a. State **TWO** advantages and **ONE** disadvantage of a group incentive scheme in labour remuneration. (3 Marks)

	Week	1	Week 2		
Group	Time allowed Time taken (hrs) (hrs)		Time allowed (hrs)	Time taken (hrs)	
1	70	62	68	62	
2	65	62	67	62	
3	63	62	65	62	

#### You are required to

(i) Calculate the total wages for each week. (6 Marks)

(ii) The bonus paid. (3 Marks)

(iii) The amount earned by each employee in each group. (3 Marks)

(Total 15 Marks)

#### **QUESTION 2**

a. State **THREE** possible reasons for process losses.

(3 Marks)

b. YEYEOBA Limited manufactures bathroom slippers known as "footware". The product is required to pass through **TWO** processes to completion. The costs of production in year 2013 were as follows:

	Pro	Total	
Cost elements	1	2	
	₩	N	N
Direct material	215,000	305,000	520,000
Direct labour	492,000	655,000	1,147,000
Direct expenses	205,000	120,000	325,000
Production overhead			850,000

1,500 units of materials were issued to Process 1 at \(\frac{1}{42}\),500 each.

Output of each Process was as follows:

Process 1	960 units
Process 2	910 units

Normal losses per Process which could be sold to end-users are as follows:

	Process loss	Sales value
Process 1	15%	¥720 per unit
Process 2	12%	₩850 per unit

Production overhead is absorbed by each process on a basis of 40% of the cost of direct labour

#### You are required to

Prepare Process Account showing calculations.

(12 Marks)

(Total 15 Marks)

#### **QUESTION 3**

a. Adewunmi Nigeria Limited has a machine with which it produces item A. Ten (10) machine hours are required to produce the item. This product's selling price is \$\frac{\text{\tex{

	¥
Direct material	125,000
Direct wages	52,000
Variable overheads	58,000
Floor space occupancy	11,500
Depreciation	7,500
Salary of Inspector for item B alone	10,000
Total Cost	264,000

It was noted that item B could be outsourced from a supplier at a cost of \$28 per unit.

#### You are required to

Assist management to decide whether to produce item B internally or to buy from an outside supplier if the following conditions exist:

(i) Production of item B will not in any way disturb the production of item A.

(ii) The machine producing item A is already fully engaged.

(10 Marks)

b. List any **FIVE** steps in management decision making process.

(5 Marks)

(Total 15 Marks)

#### **QUESTION 4**

a. Define and explain briefly the following:

(í)	Backflush Accounting	(3 Marks)
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(ii) Materials requirement planning (3 Marks)

(iii) Merit rating (3 Marks)

b. Explain ONE difference between Standard Costing and Budgetary Control.

(3Marks)

c. Describe briefly what you know about Job Evaluation. (3 Marks)

(Total 15 Marks)

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

#### **QUESTION 5**

a. The following table gives the annual financial results (income) of XYZ Nigeria Limited between the years 2008 and 2012:

Year	2008	2009	2010	2011	2012
Income (in <del>N</del> -billion)	10.2	10.5	12.1	15.4	14.2

#### You are required to

Compute the average income index using year 2010 as the base year.

(5 Marks)

b. Three different types of blocks L, M and Q were purchased by ABC Building Company. The following table shows the quantity and the corresponding price of each type of block in the years 2007 and 2008:

	Year	2007	Year 2008		
Block	Price(₦)	Quantity	Price( <del>N</del> )	Quantity	
L	120	3	310	8	
M	252	2	640	5	
Q	620	6	860	4	

#### You are required to

Construct an Aggregate Index using Marshall and Edgeworth's method with 2007 as the base year. (10 Marks)

(Total 15 Marks)

#### **QUESTION 6**

a. An Auditing firm has 110 chartered accountants in its employment. An investigation carried out on the firm revealed that a reasonable number of these chartered accountants participated in two types of sports at their leisure time: football and basketball. It further revealed that the number of chartered accountants that participated in football only is twice the number that participated in both sports, while the number of chartered accountants that participated in basketball only is thrice the number that participated in both sports; 20 chartered accountants did not participate in any of the two sports.

#### You are required to

(i) Draw Euler-Venn diagram to illustrate the above information.

(4 Marks)

(ii) Determine the number of Auditors that participated in both sports.
(2 Marks)

- (iii) Determine the number of Auditors that participated in either football or basketball. (2 Marks)
- b. A veterinary doctor purchased animal food of two types A and B. Each food comes in the same bag size and the number of grains of each of the two nutrients in each bag is summarised in the following table:

	Fo	od
Nutrients	A	В
N <sub>1</sub>	2	1
$N_2$	2	5

For a particular animal, it is necessary to combine the bags to get 2,000g of  $N_1$  and 3,000g of  $N_2$ .

#### You are required to

- (i) Formulate the problem as a system of two linear equations. (1 Mark)
- (ii) Use Cramer's rule to determine the number of bags of each type of food to be combined. (6 Marks)

(Total 15 Marks)

#### **QUESTION 7**

The table below gives all necessary information for a transportation problem:

	Х	Y	Z	Source
A	4	6	8	300
В	5	8	1	500
Destination	200	250	350	

#### You are required to

- a. Use the North-West Corner method for the allocation and calculate the total transportation cost. (2 Marks)
- b. Use the Stepping Stone method to obtain the optimal solution. (13 Marks) (Total 15 Marks)

#### **SOLUTIONS TO SECTION A**

#### PART 1 - MULTIPLE-CHOICE QUESTIONS

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

## Workings for Q2

Average stay in the hospital

Potential in-patient days in a year =  $1,500 \times 365$  days

= 547,500

75% occupancy =  $547,500 \times 0.75$ 

= 410625 in-patient days

 $\therefore \text{ Average stay} = \frac{410625}{24000}$ 

= <u>17 days</u>

#### Workings for Q3

**Net Production Cost** 

Production cost 48,600

Less net realisable value of little:

Value of little 250

Distribution cost  $\frac{75}{1}$   $\frac{175}{48,425}$   $\frac{48,425}{1}$ 

#### Workings for Q13

$$\begin{array}{rcl}
\hline
C & = & B \times A \\
 & = & \binom{2 \ 0}{1 \ 1} \times \binom{1 \ 2}{2 \ 3} \\
 & = & \binom{2 \times 1 + 0 \times 2}{1 \times 1 + 1 \times 2} \times 2 \times 2 + 0 \times 3 \\
 & = & \binom{2 \ 4}{3 \ 5}
\end{array}$$

#### Working for Q15

								Supply		
			16		20		14			
		250						<del>250</del>	0	
			15		17		21			
		50		400				450	400	0
			19		12		18			
				100		400		500	400	0
Ī	Demand	<del>300</del>		<del>500</del>	-	400	•	1200		
_		-5	<del>i0</del>	100	9	0		'	1	
		0	)	0						

Total transportation cost is  $16 \times 250 + 15 \times 50 + 17 \times 400 + 12 \times 100 + 18 \times 400 = 19950$ 

#### Working for Q16

$$\mathbf{P} = \{11,13,17,21,32,34\}$$

$$\mathbf{Q} = \{10,12,13,20,21\}$$

$$P - Q = \{11,17,32,34\}$$

$$\therefore n (P - Q) = 4$$

#### Working for Q17

Price index of x 
$$= \frac{P_{2000}}{P_{2001}} x 100$$
$$= \frac{200}{250} x 100$$
$$= 80\%$$

#### **EXAMINERS' REPORT**

The questions cover a sizeable proportion of the syllabus.

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

Major pitfall was the inability of some of the candidates to identify the most appropriate options. In addition, some of the candidates left some numbers unattempted.

For improved performance in future, it is recommended that candidates should

- Vary as much as possible the number and quality of texts they use for this paper
- Practise with a good number of past question papers
- In addition candidates should use the ICAN Pathfinder for future examinations.

#### PART II - SHORT-ANSWER QUESTIONS

- 1. Fixed and variable
- 2. Product or Service
- 3. By product
- 4. Master budget
- 5. Idle time
- 6. Activity Based Costing (ABC)
- 7. Work Measurement
- 8. Controllable Costs
- 9. Cost Ledger
- 10. Total fixed cost plus desired profit
- 11. ¥300,000
- 12. Last-In-First-Out (LIFO)
- 13. Objective function
- 14. Greater than 1, Less than 1 (in that order)
- 15. Certain, impossible (in that order) (uncertain not acceptable in place of impossible)
- 16. Set, Universal set (in that order)
- 17. Individual and Group
- 18. 135%
- 19. Critical
- **20.**  $(AB)^t = \begin{pmatrix} 3 & 2 \\ 10 & 4 \end{pmatrix}$

#### **Workings**

- 11. Contribution/Unit =  $\frac{1}{2}$ 90  $\frac{1}{2}$ 40 =  $\frac{1}{2}$ 50
  - :. Annual fixed cost =  $6,000 \times 450 = 4300,000$
- 18. Quantity index =  $\frac{Qn}{Qo}x100$ =  $\frac{27}{20}x100$ = 135%

20. 
$$A = \begin{pmatrix} 3 & 2 \\ 2 & 0 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}$$

$$A \times B = \begin{pmatrix} 3 & 4 \\ 2 & 0 \end{pmatrix} \times \begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}$$

$$= \begin{pmatrix} 3 \times 1 + 4 \times 0 & 3 \times 2 + 4 \times 1 \\ 2 \times 1 + 0 \times 0 & 2 \times 2 + 0 \times 1 \end{pmatrix}$$

$$= \begin{pmatrix} 3 & 10 \\ 2 & 4 \end{pmatrix}$$

$$\Rightarrow (A \times B)^{t} = \begin{pmatrix} 3 & 2 \\ 10 & 4 \end{pmatrix}$$

#### **EXAMINERS' REPORT**

Questions test a wide range of the syllabus.
All the candidates attempted this part of the paper and performance was good.

The candidates who did not do well had some common pitfalls including the following:

- Display of inadequate knowledge of Costing Terminologies
- Misinterpretation of the requirements of questions

It is recommended for improved performance in future that candidates should

- Devote more time to their studies
- Acquaint themselves with good and appropriate texts
- Identify and attend good quality tuition houses
- Expand the scope of their preparation for future examinations

#### **SOLUTIONS TO SECTION B**

#### **QUESTION 1**

#### 1a. Advantages of group incentive scheme

- i. It reduces absenteeism and increases output
- ii. It ensures loyalty and cooperation within the group
- iii. It can be applied to all levels of workers
- iv. It encourages more flexible working arrangement within the group

#### <u>Disadvantages</u>

- i. It may discourage use of initiative
- ii. It is capable of de-motivating efficient employees as efficient and inefficient employees are paid the same bonus.
- iii. It may not be easy to agree on the basis of bonus sharing.

# b(i) TOTAL WAGES FOR EACH WEEK WEEK 1

GROUP	TIME SAVED	BASIC PAY	BONUS	TOTAL
	(HOURS)	(₩)	( <del>N</del> )	PAY
				(₦)
1.	70 – 62	62 x 1.50 X 10	8 X 1.50 X 50% X	
			10	
	= 8	= 930	= 60	990
2.	65 – 62	62 X 1.50 X 10	3 X 1.50 X 50% X	
			10	
	= 3	= 930	= 22.50	952.50
3.	63 – 62	62 X 1.50 X 10	1 X 1.50 X 50% X	
			10	
	= 1	= 930	= 7.50	<u>957.50</u>
				2,880,000

#### WEEK 2

GROUP	TIME SAVED (HOURS)	BASIC PAY ( <del>N</del> )	BONUS (₦)	TOTAL PAY ( <del>N</del> )
1.	68 – 62	62 x 1.50 X 10	6 X 1.50 X 50% X	
			10	
	= 6	= 930	= 45	975.00
2.	67 – 62	62 X 1.50 X 10	5 X 1.50 X 50% X	
			10	
	= 5	= 930	= 37.5	967.50
3.	65 – 62	62 X 1.50 X 10	3 X 1.50 X 50% X	
			10	
	= 3	= 930	= 22.50	<u>952.50</u>
				2,895.00

#### (ii) BONUS PAID

GROUP	WEEK 1	WEEK 2	TOTAL
1	60	45	105
2	22.50	37.5	60
3	7.50	22.5	<u>30</u>
			195

#### (iii) AMOUNT EARNED BY EACH EMPLOYEE IN EACH GROUP

		GROUP 1	GROUP 2		GRO	UP 3	3
Week 1	990/10	= 99.00	952.50/10	= 95.25	937.50/10	=	93.75
Week 2	975/10	= 97.50	967.50/10	= <u>96.75</u>	952.50/10	=	<u>95.25</u>
Total		<u>196.50</u>		<u>192.00</u>			<u>189.00</u>

#### **EXAMINERS' REPORT**

The question tests candidates' knowledge and understanding of the different methods of labour remuneration and computation of bonus payments.

The question was popular among candidates as about 90% of them attempted it. Performance was very poor as only about 30% of those who attempted the question scored 50% and above of the marks allocated.

Common pitfalls exhibited by candidates include the following:

- Wrong interpretation of question
- Display of insufficient knowledge of the subject matter
- Poor arithmetic leading to wrong answers
- Illegible handwriting

For improved performance in future, it is recommended that candidates should

- Cover the syllabus thoroughly and desist from permutation and selective reading
- Attend good quality tuition centres
- Use good quality texts including the ICAN Pathfinder
- Study and work more on past question papers
- Adhere strictly to the requirements of the question being answered

#### **QUESTION 2**

- (a) i. Spoilage
  - ii. Evaporation
  - iii. Breakages
  - iv. Withdrawals for testing and inspection
  - v. Residuals
  - vi. Material wastage during processing
  - vii. Low quality materials
  - viii. Wrong handling of materials

#### (b) YEYEOBA LIMITED

#### **Process 1 Account**

Description	Unit	Cost per Unit <del>N</del>	Amount <del>N</del>	Description	Unit	Cost per Unit <del>N</del>	Amount <del>N</del>
Unit	1,500	2,500	3,750,000	Normal	225	720	162,000
introduced				loss			
Direct Mat			215,000	Abnormal		3,683.76	1,160,386
				Loss	315		
Direct Lab			492,000				
Direct			205,000	Output to			
Expenses				process 2	960	3,683	3,536,414
Production							
Overhead			196,800				
	<u>1,500</u>		4,858,800		<u>1,500</u>		4,858,800

#### **Process 2 Account**

Description	Unit	Cost per Unit <del>N</del>	Amount <del>N</del>	Description	Unit	Cost per Unit <del>N</del>	Amount <del>N</del>
Process 1	960		3,536,414	Normal loss	115	850	97,750
Direct Mat			305,000	Finished goods transferred to stock	910	5,657	5,148,407
Direct Labour			655,000				
Dir Expenses			120,000				
Production							
Overhead			262,000				
Abnormal gain	<u>65</u>	5,657	367,743				
	1,025		5,246,157		1,025		5,246,157

## **Workings**

#### Process 1

Normal loss  $=\frac{15}{100}x1500$  = 225units

Scrap =  $\frac{1}{2}$ 720 x 225 =  $\frac{1}{2}$ 162,000

Abnormal loss

Normal cost +4.858.800 - +162.000 =₩4.696.800

= Normal production unit 1500 - 225 = 1275

N4.696.800 =₩3.683.76 per unit

1275

#### Process 2

Normal loss 12% x 960 115 units Scrap value \\ 850 x 115 <del>№</del>97.750

Normal cost \$\frac{1}{4},878,414 - \$\frac{1}{4}97,750\$ ¥4.780.664 Normal production unit 845 units 960 - 115

44,780,664 = 45,657.59 per unit

845

#### **EXAMINERS' REPORT**

The question tests candidates' understanding of the causes of process losses and ability to draw up process accounts and post into them. About 75% of the entire candidates attempted the question.

Performance was poor as about 35% of them who attempted the question scored 50% and above.

Common pitfalls among candidates include

- Lack of understanding of the technicalities involved in the preparation of **Process Accounts**
- Exhibition of inadequate theoretical grounding in Process Costing
- Poor arithmetic and handwriting

For improved performance in future it is recommended that candidates should

- Spend more time on their studies
- Identify and enrol with good tuition houses
- Acquaint themselves with varied study materials including ICAN study packs and Pathfinders
- Practise with past question papers

#### **QUESTION 3**

#### INCREMENTAL COST OF PRODUCING ITEM B

	TOTAL	PER UNIT
	₩	₩
Direct Material	125,000	10.42
Direct labour	52,000	4.33
Variable Overhead	58,000	4.83
Salary of Inspector	10,000	<u>0.83</u>
TOTAL	<u>245,000</u>	<u>20.41</u>

Cost of buying from outside =  $\frac{428}{200}$  X 12,000 UNITS =  $\frac{4336,000}{200}$ 

- (i) If the production of item B will not affect item A, it is advisable to produce internally as the production cost is less than the cost of buying/purchasing from outside supplier i.e.  $\frac{1}{2}$ 336,000  $\frac{1}{2}$ 245,000 =  $\frac{1}{2}$ 91,000.
- (ii) If the production of item B will affect production of item A, we need to consider the contribution of item A not produced as well as the incremental costs of item B.

Contribution per unit of item  $A = \frac{1}{2}150 - \frac{1}{2}60 = \frac{1}{2}90$ . Contribution per machine hour of item A is therefore  $\frac{1}{2}90 \div 10$  hrs  $= \frac{1}{2}9$ /hr Total contribution lost by not using the machine for item A

 $= 12.000 \text{ units } \times 4 \text{hrs } \times \frac{4}{9} / \text{hr} = \frac{4}{9} \times 432.000$ 

Computation of savings or loss for producing item B if capacity is full is as follows:

	TOTAL	PER UNIT
	<del>N</del>	¥
Incremental cost of producing item B	245,000	20.42
Opportunity cost of failing to produce item A	432,000	<u>36.00</u>
	<u>677,000</u>	<u>56.42</u>
Price offered by outside supplier	336,000	28.00
Loss from internal production	341,000	28.42

#### **DECISION**

We advise the company to buy and not to produce internally since it is currently working at full capacity.

(b)

- (i) Determine the specific objectives as desired by management
- (ii) Understand the scope and validity of factual knowledge
- (iii) Determine relevant costs
- (iv) Ascertain alternative courses of action
- (v) Select an alternative or choice making
- (vi) Implement best solution discovered
- (vii) Appraise results

#### **EXAMINERS' REPORT**

The question tests candidates' ability to appraise properly management decision scenario with particular reference to a make or buy decision.

The question was fairly unpopular among candidates as only about 45% of them attempted it.

Performance was very poor as only 30% of the candidates who attempted it scored 40% and above of the marks.

Common pitfalls among candidates include the following:

- Exhibition of inadequate coverage of the syllabus
- Poor presentation, poor arithmetic and poor handwriting
- Display of poor knowledge of the process required in management decision making
- Exhibition of lack of understanding of the requirements of the question.

#### It is recommended that candidates should

- Learn to do a more intelligent presentation of their answers
- Improve on their handwriting and arithmetic
- Identify and attend good quality tuition houses

#### **QUESTION 4**

#### a(i) Backflush Accounting

Traditionally, material items for stock are traced from purchases through work in progress (WIP) to finished goods and collated costs through the progress. With the development of Backflush Accounting, costs are allocated between cost of sales and inventory by working back. It can be used where inventory valuation is not so important.

#### (ii) Materials Requirement Planning

This is a system that lists materials and components required to meet production schedule in order to ensure that adequate stock level is maintained and the required items are available when needed.

#### (iii) Merit Rating

Merit rating is concerned with individual employee to determine his performance for merit award, promotion or demotion. It will consider various factors like initiative, attendance, accuracy, willingness and allocated points. The summation of these points will now be used for staff appraisal scheme.

#### (b) Differences between standard costing and budgetary control

- (i) Budgets are stated in monetary or financial terms whereas standards need not be.
- (ii) Budgets are usually focused on cost centres while standards are usually for the various activities of an entity.

#### (c) Job Evaluation

This is a technique that seeks to show, in an objective manner, the relative worth of jobs. Contents of jobs under various categories are analysed for training required, working condition, and responsibility. Each factor is scored and the total score for a job is compared with another job to determine pay scale and the normal salary for the job.

#### **EXAMINERS' REPORT**

The question tests candidates' understanding of some developmental areas in Cost Accounting and Terminologies.

About 60% of the candidates attempted the question.

Performance was below average as only about 40% of the candidates scored 50% and above.

Major pitfalls include the following:

- Some terminologies appeared strange to many of the candidates
- Examination techniques were lacking
- Performance showed that the syllabus was not properly covered
- Handwriting was poor

Candidates will do well in future if they

- Vary the texts used for their preparation which should include the ICAN Study Packs and Pathfinders
- Study the syllabus more extensively for effective coverage in their preparation
- Practise with past question papers
- Attend good quality tuition houses

#### **QUESTION 5**

(a) Given the base year to be 2010, the simple income indexes are computed as follows:

For year 2008,

$$l_{2008} = \underline{10.2} \times \underline{100} = 84.30\%$$

For year 2009,

$$l_{2009} = \frac{10.5}{12.1} \times \frac{100}{1} = 86.78\%$$

For year 2010,

$$l_{2010} = \frac{12.1}{12.1} \times \frac{100}{1} = 100.00\%$$

For year 2011,

$$l_{2011} = \frac{15.4}{12.1} \times \frac{100}{1} = 127.27\%$$

For year 2012,

$$l_{2012} = \frac{14.2}{2.1} \times \frac{100}{1} = 117.36\%$$

$$= \frac{1_{2008} + 1_{2009} + 1_{2010} + 1_{2011} + 1_{2012}}{5}$$

$$= \underbrace{84.30 + 86.78 + 100.00 + 127.27 + 117.36}_{5}$$

$$= \underbrace{515.69}_{5}$$

$$= \underbrace{103.14\%}$$

(b)

Block	Year	2007	Year 2008					
Type	P <sub>o</sub>	$\mathbf{q}_{\mathbf{o}}$	$P_1$	$\mathbf{q_{1}}$	$P_1q_0$	$P_1Q_1$	$P_0q_0$	$P_0q_1$
L	120	3	310	8	930	2480	360	960
M	252	2	640	5	1280	3200	504	1260
Q	620	6	860	4	5160	3440	3720	2480

$$\sum p_1 q_0 \quad \sum p_1 q_1 \quad \sum p_0 q_0 \quad \sum p_0 q_1$$
= 7370 = 9120 = 4584 = 4700

.. Marshall and Egdeworth's aggregate index

$$= \frac{\sum p_1 q_0 + \sum p_1 q_1}{\sum p_0 q_0 + \sum p_0 q_1} x \frac{100}{1}$$

$$= \frac{7370 + 9120}{4584 + 4700} x \frac{100}{1}$$

$$= \frac{16490}{9284} x \frac{100}{1}$$

$$= 177.617\% = \underline{177.62\%}$$

#### **ALITER**

Block	Year 2007		Year 2008				
Type	P <sub>o</sub>	$\mathbf{q}_{\mathbf{o}}$	$P_1$	$q_1$	$q_0+q_1$	$P_1(q_0 + q_1)$	$P_0(q_0+q_1)$
L	120	3	310	8	11	3410	1320
M	252	2	640	5	7	4480	1764
Q	620	6	860	4	10	8600	6200

$$\begin{array}{c|cccc}
\hline
S000 & 0200 \\
\hline
\sum p_1(q_0 + q_1) & \sum p_0(q_0 + q_1) \\
= 16490 & = 9284
\end{array}$$

Marshall - Egdeworth's aggregate price index

$$= \frac{\sum p_1(q_0 + q_1)}{\sum p_0(q_0 + q_1)} x \frac{100}{1}$$
$$= \frac{16490}{9284} x \frac{100}{1}$$
$$= 177.62\%$$

#### **EXAMINERS' REPORT**

The question tests the candidates' understanding and their ability to construct the Price Indices with reference to Marshal-Edgeworth Price Index.

The question was very popular among the candidates with about 95% of them attempting it.

Performance was good as about 75% of the candidates who attempted it scoring 50% and above of the marks allocated.

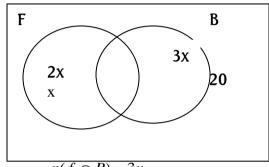
There were no noticeable common pitfalls.

Although, performance was good, this can be better in future, if candidates vary their texts and improve on their appreciation of examination techniques.

#### **QUESTION 6**

(a)i Let F represent football
B represent basketball

$$n(U) = 110$$



$$n(f \cap B) = 3x$$

$$2x + x + 3x + 20 = 110$$

$$6x + 20 = 110$$

$$x = 15$$

(iii) 
$$n(f \cup B) = 2x + x + 3x = 6x = 6x = 15 = 90$$

#### **ALITER**

(III) 
$$n(f \cup B) = n(f) + n(B) - n(f \cap B)$$
  
= 3 x + 4 x - x  
= 6 x  
= 6 x 15  
= 90

(b) Let the required number of bags to be combined be x and y respectively

(b) From equations (i) and (ii) we can write

$$\begin{pmatrix} 2 & 1 \\ 2 & 5 \end{pmatrix} \quad \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 2000 \\ 3000 \end{pmatrix}$$

.. Using Cramer's rule, we have

$$\Delta = \begin{vmatrix} 2 & 1 \\ 2 & 5 \end{vmatrix}$$

$$= 2 \times 5 - 2 \times 1 = 10 - 2 = 8$$

$$\Delta_{1} = \begin{vmatrix} 2000 & 1 \\ 3000 & 5 \end{vmatrix}$$

$$= 2000 \times 5 - 3000 \times 1 = 10000 - 3000 = 7000$$

$$\Delta_{2} = \begin{vmatrix} 2 & 2000 \\ 2 & 3000 \end{vmatrix}$$

$$= 2 \times 3000 - 2 \times 2000 = 6000 - 4000 = 2000$$

$$\therefore x = \frac{\Delta_{1}}{\Delta}$$

$$= \frac{7000}{8} = 875 \text{ units}$$

$$y = \frac{\Delta_{2}}{\Delta}$$

$$= \frac{2000}{8} = \frac{250 \text{units}}{8}$$

#### **EXAMINERS' REPORT**

The question tests candidates' knowledge and understanding of the components of the Set Theory with respect to the construction of Euler-Venn Diagram. The second part of the question is on the use of matrices to solve a system of equations based on Cramer's Rule.

The topic was very familiar to candidates as about 90% of them attempted the question.

Performance was fairly good as about 60% of the candidates who attempted it scored 50% and above.

Common pitfalls among candidates include the following:

- Inability to correctly construct Euler-Venn Diagram
- Cramer's Rule appeared strange to some of the candidates
- Many candidates interpreted the question as a Linear Programming problem.

Improvement will be achieved in future if candidates

• Widen their scope of preparation by covering the syllabus more extensively

- Spend more quality time on preparation for future examinations
- Practise with past question papers
- Attend good quality tuition houses
- Read and digest ICAN Pathfinders and Study Packs

QUESTION 7

(a)

	Х	Y	Z	Source	
A		6	8		
	200	100	8	<del>30</del> 0 1 <del>00</del>	0
В		8	1		
		150	350	<del>500</del> <del>350</del>	0
Destination	200	<del>250</del>	<del>350</del>	800	
	0	1 <del>5</del> 0 0	0		

Transportation cost =  $4 \times 200 + 6 \times 100 + 8 \times 150 + 1 \times 350 = 2,950$ 

(b) Non-basic cells are AZ and BX

$$C_{AZ} = 8 - 1 + 8 - 6 = (i.e. (1 x 8) - (1 x 1) + (1 x 8) - (1 x 6)$$
  
 $C_{BX} = 5 - 4 + 6 - 8 = -1 (i.e. (1 x 5) - (1 x 4) + (1 x 6) - (1 x 8)$ 

.. Cell BX is Considered

	X	Υ	Z	
A	200 -	6 100 + <del>0</del>	8	
В	Ð	8 150 - 0	350	

$$0 = 150$$

	Х		Y		Z	
A	50		250	6		8
В				8		1
	150				350	

Transportation cost =  $4 \times 50 + 6 \times 250 + 150 \times 5 + 350 \times 1 = 2800$ 

Non-basic cells are AZ and BY

 $C_{A7} = 9$  as before

 $C_{RV} = 8 - 6 + 4 - 5 = 1$  (i.e.  $(1 \times 8) - (1 \times 6) - (1 \times 5)$ )

Since both values are positive, the optimal solution has been reached with transportation cost of 2,800.

#### **EXAMINERS' REPORT**

The question tests candidates' understanding of a Transportation problem with respect to cost minimization.

The question did not appear to be popular among candidates as only 40% of them attempted it.

Performance was very poor as only about 5% of the candidates who attempted the question scored 50% and above.

Notable pitfalls among candidates include the following:

- Lack of familiarity with the use of stepping stone method to obtain the optimal solution as required by the question.
- Poor understanding of Non-Basic Cells

It is recommended that candidates should

- Improve on their preparation
- Attend good quality tuition houses
- Use good quality texts including the ICAN Pathfinders and Study Packs
- Spend more quality time for preparation

#### THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

#### **INTERMEDIATE EXAMINATION – MAY 2014**

#### **AUDIT AND ASSURANCE**

Time Allowed: 3 hours

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

(20 Marks)

#### ATTEMPT ALL QUESTIONS IN THIS SECTION

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

- 1. Statutory duties of an independent auditor are determined by
  - A. Companies and Allied Matters Act CAP C20 LFN 2004
  - B. Memorandum of Association
  - C. Articles of Association
  - D. Agreement between the company and the auditor
  - E. Agreement between the board of directors, audit committee and the external auditor.
- 2. The objectives of Pension Reform Act 2004 include the following **EXCEPT** to:
  - A. Ensure that every person who worked in either the public service of the Federation or private sector receives his retirement benefits as at when due
  - B. Assist improvident individuals by ensuring that they save in order to cater for their livelihood during old age
  - C. Establish a uniform set of pension rules
  - D. Establish pension regulations and standards for the administration and payments of retirement benefits for public servants of the Federation
  - E. Lay down the procedures for paying pension to the armed forces in a distinct manner from that of the civilians

- 3. Which of the following is **NOT** a legal right of a statutory auditor?
  - A. The right of access to the books, accounts and vouchers
  - B. The right to obtain information and explanation
  - C. The right to receive notices and attend general meetings
  - D. The right to require the directors to convene a general meeting on their resignation and to attend and be heard at that and any other meetings which concern them
  - E. The right to withhold the auditors' report until the professional fees are paid.
- 4. A good management letter should contain the following **EXCEPT** 
  - A. A note of the purpose of the letter
  - B. A recommendation for improvement
  - C. Note of the purpose of internal control investigation
  - D. A recommendation for auditors' remuneration
  - E. A list of the weaknesses
- 5. Management audit can best be described as the
  - A. Examination of books and audit of accounts done by the management
  - B. Periodic assessment of company's activities by the statutory auditor
  - C. Periodic assessment of company's managerial planning, organising actuating and controlling compared to norm of successful operation
  - D. Auditors' assessment of the financial statements of the entity
  - E. Audit reviews of an organisation's policies procedures and practices concerning human resources
- 6. Which of the following is **NOT** correct about an Internal Auditor?
  - A. The internal auditor is appointed by the management
  - B. The internal auditor may not necessarily be a person with accounting background
  - C. The internal auditor is responsible to and reports to the management
  - D. Management decides the scope of duties of the internal auditor
  - E. Professional qualification is required of an internal auditor

- 7. An audit approach which considers the effectiveness of internal control in preventing or detecting and correcting mis-statements is
  - A. Statement of financial position approach
  - B. Statement of comprehensive income approach
  - C. Systems-based approach
  - D. Effectiveness approach
  - E. Continuous approach
- 8. The external auditor can evaluate the internal auditor's work through the following criteria **EXCEPT** 
  - A. The extent to which the internal auditor is functioning independently
  - B. The professional qualification and experience of the internal auditor
  - C. The competence and skill of the internal auditor
  - D. Whether the internal auditor is well remunerated and receives higher pay than the other line managers
  - E. Whether the internal auditor reports to the highest level of management
- 9. Which of the following is **NOT** part of auditors' duties during stocktaking?
  - A. Carrying out test count and recording his sample for subsequent check against the final stock sheets
  - B. Carrying out cut-off tests
  - C. Obtaining information to be used in cut-off tests
  - D. Taking note of special items like damaged stocks, obsolete stocks and slow-moving items
  - E. Obtaining photocopies of sheets or extract items from rough stock sheets for comparison with the final stock records
- 10. The objectives of verification of assets are as follows **EXCEPT** to
  - A. Establish the existence of actual items of assets
  - B. Examine the title or ownership of assets
  - C. Examine the possession of assets
  - D. Establish proper classification of assets
  - E. Verify reasonableness of cost of assets

- 11. A Letter of Engagement serves the following purposes **EXCEPT** to
  - A. Define clearly the extent of the auditor's responsibilities
  - B. Minimise misunderstanding between the auditor and the client
  - C. Inform and educate the client
  - D. Facilitate due process of audit
  - E. Confirm acceptance by the auditor of his engagement
- 12. Which of the following is **NOT** part of a permanent audit file?
  - A. Previous years' accounts
  - B. Internal control system documentation
  - C. Letter of Representation
  - D. Accounting policies
  - E. Letter of Engagement
- 13. Which of the following is **NOT** true of circularisation letters?
  - A. It is prepared by the auditor
  - B. It is despatched by the client
  - C. It is addressed to third parties
  - D. It is to be returned to the auditor
  - E. It is written on clients letterhead
- 14. The following are the problems faced by the Public Accounts Committee **EXCEPT** 
  - A. Political instability, leading to continuous changes in the composition of the Committee
  - B. The financial statements to be examined are often in arrears
  - C. Members of the Committee may not be knowledgeable in accounting and financial reporting
  - D. Resolutions are not always implemented
  - E. The changes from the adoption of the International Public Sector Accounting Standards
- 15. Which of the following is **NOT** a general control widely recognised in an electronic data processing environment?
  - A. Organisational and operational controls
  - B. Systems development and documentation controls

- C. Hardware and systems software controls
- D. Access controls
- E. Verification controls
- 16. Which of the following is **NOT** an example of audit packages?
  - A. Audit Command Language (ACL)
  - B. Purpose Written Computer Programs (PWCP)
  - C. Interactive Data Extraction and Analysis (IDEA)
  - D. Statistical Analysis software (SAS)
  - E. Structured Query Language (SQL)
- 17. The system whereby "data is input via a terminal and immediately checked by the computer, processed and the relevant files updated" relates to
  - A. On-line system
  - B. Real-time system
  - C. Processing system
  - D. Control system
  - E. Batch system
- 18. Which of the following is **NOT** an advantage of the Audit Committee?
  - A. The Committee could lead to the perception of a two-tier board
  - B. The Committee provides assistance to directors in carrying out their responsibilities
  - C. The Committee strengthens the objectivity and credibility of the financial statements
  - D. The Committee promotes the auditors' independence by acting as intermediary between the management and the auditors
  - E. The Committee can lead to improvement in the communication between the external auditor, management and internal auditor of an enterprise
- 19. Forensic audit can be applied in the following areas EXCEPT
  - A. Computation of damages
  - B. Matrimonial divorce
  - C. Claims analysis
  - D. Attest function
  - E. Expert witness testimony

- 20. Which of the following is considered an assurance service?
  - A. Agreed upon procedures
  - Management consulting B.
  - Value for money
  - D. Tax consulting
  - Compilation of financial information E.

SECTION A: PART II (20 Marks) SHORT-ANSWER QUESTIONS

#### ATTEMPT ALL QUESTIONS IN THIS SECTION

- Write the answer that best completes each of the following questions/statements: 1. The erroneous belief by members of the public that the primary duty of auditors is to detect fraud is referred to as ..... 2. An audit which assesses the impact of an organisation's non-financial objectives on the society is referred to as ..... The Central Bank of Nigeria Act CAP C4 LFN 2004 provides that the Bank 3. transmits to the President, a copy of its annual accounts certified by the auditor within ...... months after the close of each financial year. 4. A review which takes place after an audit work has been completed to ensure that the firm's policies and procedures are being complied with is known as .....
- Threats which may occur as a result of the financial interests of a 5. professional accountant in an organisation is known as .....
- The risk of an auditor expressing an inappropriate audit opinion when the 6. financial statements are materially misstated is known as .....
- An audit which involves audit staff being present in a large client's office 7. all year round is .....
- The risk of material errors escaping the substantive audit procedure is 8. referred to as .....

9. The information used to trace the status and contents of an individual transaction forward or backward between source documents, processing and output is known as ..... 10. A software system which constructs, expands and maintains the data in a computerised environment is known as ..... 11. The overall attitude, awareness and actions of directors and management regarding internal controls and their importance to the entity is known as ..... A test which involves taking a sample of few transactions and following 12. them through every stage of the system is ..... The procedure that involves computation of ratios, studying of trends and 13. the use of statistical models to obtain audit evidence is ..... 14. An information technology technique which models the clients system on the auditors' hardware and compares the results obtained using the same set of data is ..... Procedures designed to restrict access to on-line terminal devices, 15. programmes and data are known as ..... 16. A matter whose outcome depends on future actions or events not under the direct control of the entity but that may affect the financial statements is known as ..... 17. An expression of independent opinion by the auditor about the truth and fairness of financial information examined by him is the ..... objective of an independent statutory audit. 18. The body that reviews the report of the Auditor-General for the Federation and invites any person indicted in the report to come for public hearing is known as ..... 19. A type of audit which is learnt more from experience than from textbooks is known as ..... A professional service provided by Chartered Accountants that reduces the 20. risk of incorrect information is .....

SECTION B: ATTEMPT ANY FOUR QUESTIONS

(60 Marks)

### **OUESTION 1**

Silverbul is a small company engaged in import and export business. The company has requested you, as its auditor, to assist in writing up the accounting books and records and to prepare the financial statements since they could not afford to employ a qualified accountant.

#### Required:

- a. State with reasons, if you would accept this offer to assist Silverbul Limited to write up the accounting books and records. (2 Marks)
- b. Outline **FOUR** steps that you would take to ensure that your role as the company's auditor is properly exercised, if the offer is accepted. (4 Marks)
- c. List **FIVE** factors that may compromise the independence of an auditor.

(5 Marks)

d. Highlight **FOUR** reasons why an audit firm may decline to accept an appointment as independent auditors. (4 Marks)

(Total 15 Marks)

#### **QUESTION 2**

An audit plan helps an auditor not only to understand the scope of audit but also facilitate smooth conduct of the audit.

#### Required:

a. Define audit plan.

(2 Marks)

- b. State **TEN** matters that the auditor should consider while developing the overall audit plan. (10 Marks)
- c. Highlight **THREE** benefits of audit planning.

(3 Marks)

(Total 15 Marks)

#### **QUESTION 3**

Before an auditor proceeds on the examination of the accounting records and other evidence that form the basis of the financial statements, he assesses the adequacy of the internal control system of the organisation.

### Required:

- a. Define "Internal Control" as stated in the Nigerian Standards on Auditing
  (2 Marks)
- b. State **FIVE** purposes of internal control

(5 Marks)

c. State **EIGHT** items that you would expect to be contained in an internal control questionnaire on fixed assets (8 Marks)

(Total 15 Marks)

#### **QUESTION 4**

An Auditor is not expected to disclose any information about his client to a third party without the client's consent in writing.

#### Required:

- a. Identify any **SIX** situations when such information can be given to a third party without the client's consent. (6 Marks)
- b. Enumerate any **FOUR** of the obligations imposed by the ethical principle of professional competence and due care on Chartered Accountants. (4 Marks)
- c. Write briefly on the ethical rules that auditors should observe in handling clients' monies. (5 Marks)

(Total 15 Marks)

#### **QUESTION 5**

Complexities in business and changes in social and legal expectations have enhanced the need for forensic auditing.

### Required:

a. What is forensic auditing?

(2 Marks)

b. State **FIVE** differences between financial auditing and forensic auditing.

(5 Marks)

c. Highlight **FIVE** qualities of a forensic auditor.

(5 Marks)

d. Identify any **THREE** areas where forensic audit may be applied. (3 Marks)

(Total 15 Marks)

### **QUESTION 6**

Computer security is a major source of concern to the auditor in a computer-based accounting system.

### Required:

- a. Explain **THREE** aspects of computer security which may be of major concern to an auditor. (6 Marks)
- b. Describe **SIX** major security threats in a computerised environment, giving an example of each. (9 Marks) (Total 15 Marks)

#### **SOLUTIONS TO SECTION A**

#### PART I MULTIPLE-CHOICE QUESTIONS

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

- 17. B
- 18. A
- 19. D
- 20. C

#### **EXAMINERS' REPORT**

The questions cover a wide area of the syllabus. All the candidates attempted the questions. Performance was average. There was generally a low understanding of the examiners' requirements. Candidates are advised to cover the syllabus and read widely.

#### PART II SHORT ANSWER QUESTIONS

- 1. Expectation Gap
- 2. Social Audit
- 3. 2
- 4. Cold Review
- 5. Self-Interest Threats
- 6. Audit Risk
- 7. Continuous Audit
- 8. Detection Risk
- 9. Audit Trail
- 10. Data Base Management System
- 11. Control Environment
- 12. Walk Through Test
- 13. Analytical Review
- 14. Parallel Simulation
- 15. Access Controls
- 16. Uncertainty
- 17. Primary

- 18. Public Accounts Committee of the National Assembly
- 19. Forensic Audit
- 20. Assurance Service

#### **EXAMINERS' REPORT**

The questions cover a wide spectrum of the syllabus. Performance was average. Candidates should prepare well for professional examinations.

#### **SOLUTIONS TO SECTION B**

#### **QUESTION 1**

- (a) There is no law that disallows an auditor from accepting the offer to write up the accounting books and records of a company.
  - Before accepting the offer of assistance to write up the accounting books and records, consideration must be given to whether the provision of such service would create a threat to the auditors' independence. In situations where a threat created is clearly significant, the offer would be declined unless appropriate safeguards can be applied to eliminate the threat or reduce it to an acceptable level.
- (b) Steps to be taken to ensure that the role of the company's auditor is properly exercised if the offer is accepted, include:
  - i. Ensure as far as possible that the auditors' independence is not compromised by assigning different members of staff to the accounting and audit work.
  - ii. Assign responsibility for the accounting services to a partner other than the one responsible for the supervision of the audit work or the engagement partner.
  - iii. Ensure that audit staff are aware of the special need for an independent attitude of mind.
  - iv. Ensure that audit work and accountancy work are cost and billed to the client separately.
  - v. The engagement letter must have clearly distinguished between the two roles and emphasised that the ultimate responsibilities for the preparation of the financial statements rest with management.

- (c) Factors that may compromise the independence of an auditor include:
  - (i) Where the fee on a job is material in relation to total income
  - (ii) Where the auditor provides other services to the client which may lead to conflict of interest.
  - (iii) If the auditor owns shares in the client's company
  - (iv) If the auditor receives loans from the company
  - (v) If the auditor is in partnership with an officer of the company
  - (vi) If the auditor is related to management staff of the company (by blood or marriage)
  - (vii) If the auditor is employed by the company or employs an employee of the company
  - (viii) If the auditor receives material gifts or gratification from the company
  - (ix) If there is a threat of replacement over a disagreement on the application of an accounting principle
- (d) The reasons why an audit firm may not accept appointment as auditors include the following:
  - (i) If permission is refused by the client for communication with the existing auditor
  - (ii) If the existing auditor informs the prospective firm that he is not authorised to discuss the client's affair with him
  - (iii) If the reasons for the change as highlighted by the client are not in accordance with facts
  - (iv) If the proposal to replace the existing auditor arose because he has carried out his duties in the face of opposition or the existence of important difference of principle or practice between him and the client.
  - (v) if the client, its directors or employees might have been guilty of some unlawful act or default, or that any aspect of their conduct which is relevant to the carrying out of the audit assignment ought, in the opinion of the existing auditor, to be investigated further by an appropriate authority.
  - (vi) if the prospective auditor has serious doubts regarding the integrity of the directors and/or senior managers of the company.

- (vii) if the client's directors or staff had deliberately hindered the performance of the existing auditor or limited or attempted to limit the scope of the audit.
- (viii) if any partner, staff or close relation of the new firm has financial and/or any beneficial interest in the prospective client.
- (ix) if the client's directors and staff had defrauded or attempted to defraud government departments e.g. FIRS, Customs Service, etc. and wanted to cover up by changing the existing auditor.
- (x) If the audit firm believes that they do not have the capacity and technical ability to handle the assignment.

#### **EXAMINERS' REPORT**

The question tests candidates' understanding of professional ethics and their application to appointment of accountants and auditors. Almost 90% of the candidates attempted the question. Performance in (a) and (b) parts was poor.

Performance in parts (c) and (d) was average. The commonest pitfall of the candidates was their inability to recognise the requirements of the question.

Candidates should read questions very well before attempting them.

#### **SOLUTION 2**

(a) Audit plan is a:

"work plan that reflects the design and performance of all audit procedures. It entails the general strategy and detailed approach for the expected nature, timing and extent of the audit."

- (b) The matters to be considered by the auditor while developing the overall audit plan include:
  - (i) The terms of audit engagement, scope of work, reporting requirements and the deadline.
  - (ii) The nature and timing of reports and other communications.
  - (iii) The nature, size, complexity and history of client's business.
  - (iv) The relevant statutory and regulatory requirements
  - (v) The accounting policies adopted by the client
  - (vi) The effect of new accounting and/or auditing standards on the audit.
  - (vii) The nature and significance of items in the financial statements.
  - (viii) The size and quality of audit staff required.

- (ix) The allocation of work between joint auditors, where applicable.
- (x) The consideration for the involvement of experts.
- (xi) The work of the internal auditor and the extent of the reliance to be placed on his work.
- (xii) The nature and extent of audit evidence to be obtained.
- (xiii) The consideration for audit risk and specific audit areas.
- (xiv) The degree of reliance that the auditor should place on the client's accounting and internal control systems.
- (xv) Matters from previous years' audit which are relevant for the current year audit.
- (xvi) The legal environment and the industry's economic climate in which the client operates.
- (xvii) The involvement of other auditors within the group, where applicable.
- (xviii) Updating knowledge for succeeding periods.
- (xix) Changes in government's policies and regulations affecting the client's business.
- (xx) The audit and visit arrangements to branches and divisions.
- (xxi) Existence, quality and size of audit committee and scope of its activities.
- (xxii) Changes in the client's professional advisors e.g. lawyers, bankers etc.
- (xxiii) Supervision, direction and review of staff work
- (xxiv) Other matters requiring auditors' special attention
- (c) The benefits of audit planning include the following:
  - (i) It ensures that the audit is properly controlled and adequately directed at all stages.
  - (ii) It ensures that the audit objective is established and achieved.
  - (ii) It ensures that the audit work is efficiently and effectively completed at minimum cost.
  - (iii) It ensures that adequate attention is focused on high risk and critical areas of the engagement.
  - (iv) It facilitates review of audit work papers.
  - (v) It helps the auditor to obtain sufficient and appropriate evidence needed for the audit.
  - (vi) It provides a record of the audit plan for future reference.
  - (vii) It provides an evidence of the circumstances resulting in the auditors audit approach division.
  - (viii) It provides a disciplined framework for ensuring that all relevant matters are considered during the audit planning.

#### **EXAMINERS' REPORT**

The question tests candidates' knowledge on Audit Planning. About 80% of the candidates attempted the question and performance was generally above average.

The commonest pitfall was that candidates' comprehension was poor. Candidates should strive to perform better by studying harder.

#### **QUESTION 3**

(a) Internal control is defined as:

"The process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations."

- (b) The purposes of internal control are to ensure that:
  - (i) Transactions are executed in accordance with proper specific authorization.
  - (ii) Access to assets is permitted only in accordance with laid down policy.
  - (iii) Errors and irregularities are avoided or otherwise made apparent.
  - (iv) All transactions are promptly recorded correctly as to amounts and period in order to permit preparation of financial statements in accordance with relevant legislations, regulations and standards.
  - (v) Recorded assets are compared with the existing assets at reasonable intervals and appropriate action is taken with regards to discrepancies.
  - (vi) Transactions are complete.
  - (vii) Assets are safeguarded.
  - (viii) Assets are stated at their current and fair values.
- (c) Items expected to be contained in an Internal Control Questionnaire (ICQ) on Fixed Assets include whether or not:
  - (i) Fixed assets register is maintained for each group item of fixed assets
  - (ii) Detailed ledger accounts are maintained for each item of fixed assets
  - (iii) Such records are balanced at least annually with general ledger control accounts and reconciled with the fixed assets register

- (iv) There is a periodic physical verification of fixed assets
- (v) The client has periodic appraisals for insurance and other reasons
- (vi) There is a system of accounting for small tools
- (vii) There are policies to account for capital expenditure, research and development, and major repairs
- (viii) The board authorises capital expenditure
- (ix) There is a policy to differentiate between fixed assets additions and repairs and maintenance
- (x) There is a policy guiding disposal of replaced assets
- (xi) There are procedures for accounting for disposals.
- (xii) There is a procedure for accounting for the sales proceeds on disposal
- (xiii) The records are kept in the computer system
- (xiv) Documentation is adequate to record costs in the case of internally built fixed assets
- (xv) Gains or losses on disposals of fixed assets are properly recognised and presented in the accounts
- (xvi) The carrying costs in the financial statements are reasonably stated

#### **EXAMINERS' REPORT**

The question tests "Internal Control". About 90% of the candidates attempted the question and the general performance was above average.

#### **QUESTION 4**

- (a) An auditor can disclose information about his client without the client's consent when:
  - (i) Disclosure is permitted by law,
  - (ii) Disclosure is required by law,
  - (iii) Public duty demands it,
  - (iv) He has a professional or legal duty to disclose,
  - (v) He is compelled by a competent court of law to do so,
  - (vi) He has to comply with enquiries relating to the quality review of a member,
  - (vii) He has to respond to an inquiry or investigation by a member's professional or regulatory body,
  - (viii) There is need to protect the professional interests of a Chartered Accountant in legal proceedings.
  - (ix) He has to comply with technical standards and ethical requirements

- (b) The principle of professional competence and due care imposes the following obligations on the Chartered Accountant:
  - (i) He is expected to maintain professional knowledge and skill at the level required to ensure that clients or employers receive competent professional services.
  - (ii) He is to act diligently in accordance with applicable technical and professional standards when providing professional services.
  - (iii) He should exercise sound judgement in applying professional knowledge and skill in the provision of services.
  - (iv) He is expected to continuously maintain high professional competence by having a deep knowledge of the relevant professional and business developments. He must develop himself by attending Mandatory Continuing Professional Education (MCPE) programmes.
  - (v) He must be diligent and act in accordance with the requirements of the assignment which he is expected to handle carefully, thoroughly and on timely basis.
  - (vi) He must take every step to ensure that all those working under his authority in a professional capacity have appropriate training and supervision.
- (c) The following are the ethical rules to be observed by auditors in handling clients' monies:
  - (i) The auditor is required to separate clients' monies from his own. A separate bank account should be opened where clients' monies will be lodged into without any delay.
  - (ii) Where many clients are involved, a single bank account should be used for all of them but a ledger account should be maintained showing what belongs to each client.
  - (iii) The bank must be informed as to the nature of the clients' account held and the bank cannot exercise the right of set-off against the balance in the account of the firm.
  - (iv) The auditor cannot set-off disputed fees against the monies received on behalf of the client.
  - (v) The auditor should use clients' monies for their intended purposes only.

#### **EXAMINERS' REPORT**

The question tests Code of Conduct "imposed" by the Institute of Chartered Accountants of Nigeria. About 40% of the candidates attempted the question. The performance of the candidates was below average.

The commonest pitfall was the inability of the candidates to understand the requirements of the questions.

Candidates should study hard for the professional examinations.

#### **QUESTION 5**

(a) Forensic auditing is the application of accounting methods to the tracking and collection of forensic evidence usually for investigation and prosecution of criminal acts such as embezzlement or fraud. It is a type of professional service which results from actual or anticipated disputes or litigation.

#### (b) Differences between financial audit and forensic audit include:

- (i) Financial audit detects material misstatements while forensic audit detects material fraud.
- (ii) Financial audit depends on samples and rely on examination of audit trail while forensic audit depends on examination of events and activities behind the documents.
- (iii) Forensic audit is learnt more from experience than from textbooks.
- (iv) Financial audit is based on deduction while forensic audit is based on intuition.
- (v) The primary duty of the financial audit is to give audit opinion on true and fair view on financial statements whereas the forensic audit obtains evidence to be used for litigation proceedings.
- (vi) Financial audit is statutorily required while forensic audit is not required by any specific statue.
- (vii) The responsibility of the financial audit is to the members of an entity whereas that of the forensic audit is to the person who commissioned it.

#### (c) Qualities of a Forensic Auditor

- (i) He must have an investigative mind.
- (ii) He must have a sound knowledge of investigation techniques and investigative skills.
- (iii) He must have a sound knowledge of law of evidence.

- (iv) He must be able to identify fraud with minimal initial information.
- (v) He must possess the ability to communicate his findings in a language that is understandable to a layperson.
- (vi) He must have a good understanding of analysis and interpretation of financial statements.

### (d) Application of Forensic Audit

#### (i) Corporate Investigations

The forensic auditor assists in investigating allegations ranging from kickbacks, wrongful dismissals and allegations of management or employee wrongdoing.

### (ii) Litigation Support

Forensic auditors assist in investigating and assessing the integrity and amount relating to issues of loss of profit, construction claims, product liability, breach of contracts and matrimonial disputes.

### (iii) Criminal Matters

Forensic auditors serve as expert witnesses in cases of arson, fraud, investment scams, and stock market manipulations.

#### (iv) **Insurance Claims**

Forensic auditors assess the integrity and quantum of insurance claims under dispute.

### (v) Government

Forensic auditors assist government to achieve regulatory compliance by ensuring that organisations follow the appropriate legislations and regulations.

#### **EXAMINERS' REPORT**

The question tests candidates' knowledge of forensic auditing. About 80% of the candidates attempted the question and the general performance was good.

#### **QUESTION 6**

(a) The three main aspect of computer security are:

#### i. Integrity

Data need to be processed completely and accurately. The auditor is particularly concerned with controls which protect data from fraud and error. A strong internal control system contributes to preserving the integrity of data.

Factors which may compromise integrity of data include:

- poor custodial control of assets
- Unauthorised access to a system through terminals
- weak IT controls
- failure to check up reference when recruiting personnel
- personal financial pressure

### ii. Confidentiality

Access to the computer needs to be restricted to authorised personnels only so that the information stored inside the computer is not used for personal or unauthorised purpose to the detriment of the company.

### iii. Availability

Availability concerns the following:

- responsive time, that is, the delay between entering the data and the computer response time.
- Back-up procedures in the event of loss or damage
- Fall back arrangements if the system becomes inoperatable.
- (b) Major security threats in a computerised environment are:-

#### i. Hardware Damage

Hardware may be damaged or destroyed due to:

- Fire
- Flood incident
- Failure of power supply

- Malfunctioning
- Unsupervised access by operators and other staff
- Dust, humidity
- Sabotage

### ii. Computer Fraud

Computer fraud encompasses:

- The unauthorised gaining of access for the purposes of defalcation and misappropriation.
- The production of financial information which is not derived from authorised transactions i.e. misrepresentation.
- Unauthorised access to programs and data and use of computer facilities i.e. misuse of resources.

### iii. Hacking

Hacking is the practice of illegitimate modifying of computer hardware and software. It involves the following:

- Obtaining confidential information in an unauthorised manner
- Committing fraud
- Causing disruption

#### iv. Viruses And Worms

Viruses are "hostile" or "malware" programs. They infect systems by propagating themselves onto disks and through networks. Examples are:" Acid, Alabama, Ada, Bomber Jerusalem, Shanker's virus, Stoned.

#### v. Theft

Terminals, PCs, Laptops etc may be easily stolen for resale. Software may be pirated for sale to a competitor or private use for financial gain.

#### vi. Misuse of Information

Misuse of information obtained through unauthorised use of a terminal, waste output or, unauthorised handling of printed output.

#### vii. Sabotage

Sabotage means malicious destruction of hardware or programs and data

#### viii. **Programming Errors**

The effect of programming errors which results in systematic (repeated) errors may be highly damaging.

#### ix. **Personnel Problems**

High rate of labour turnover of computer staff, lack of motivation and inadequate training.

#### x. Masquerading/Impersonation

This is where a person uses the identity of an authorised computer user to gain access to a computer environment.

#### xi. **Piggybacking**

This is a method of gaining unauthorised access to electronically or mechanically controlled/locked doors or sites by attaching to authorised persons.

#### xii. **Data Diddling/False Data Entry**

This involves changing data before or during their input into the computers. Anybody associated with or having access to creating, recording, transporting, encoding, examining, checking, converting and transforming data that ultimately enter the computer can change these data.

#### **EXAMINERS' REPORT**

The question test candidates' understanding of computer security. About 30% of the candidates attempted the question and performance was poor.

The commonest pitfall was that they showed shallow understanding of the requirements of the question as outlined above.

Candidates are advised to pay more attention to this aspect of the syllabus.

#### THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

#### **INTERMEDIATE EXAMINATION - MAY 2014**

#### **TAXATION**

Time Allowed: 3 hours

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

#### ATTEMPT ALL QUESTIONS IN THIS SECTION

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 statements best describes the main difference between "taxes" and "levies"?
  - A. Levies are generic while taxes are computed on standard table
  - B. Levies are voluntary while taxes are compulsory
  - C. Taxes are restrictive and specific while levies are penalties and fines on tax due but not paid
  - D. Taxes are contestable while levies are not contestable
  - E. Levies are fixed while taxes are calculated on specified rates
- 2. The following taxes and levies are imposed and collectible by the State Government **EXCEPT** 
  - A. Withholding Tax on individuals
  - B. Capital Gains Tax on individuals
  - C. Road Taxes
  - D. Business premises registration
  - E. Petroleum Profits Tax
- 3. The Annual Employers Returns and Tax Declaration are required by the Personal Income Tax Act CAP P8 LFN 2004 (as amended) to be filed with the relevant tax authority not later than
  - A. 31 March after the end of the year
  - B. 30 April after the end of the year
  - C. 31 January after the end of the year
  - D. 28 February after the end of the year
  - E. 31 May after the end of the year

- 4. The following are the functions of the Technical Committee of the State Board of Internal Revenue **EXCEPT** 
  - A. Harmonise tax administration in the state
  - B. Attend to other matters that, from time to time, may be referred to it by the Board
  - C. Have powers to co-opt additional staff from within the State Service in the discharge of its duties
  - D. Advise the State Board on all its powers and duties
  - E. Consider all matters that require professional and technical expertise and make recommendations to the State Board
- 5. The Personal Income Tax (Amendment) Act, 2011, states that Consolidated Relief Allowance shall be
  - A. \mathbb{\ma

  - D. \(\frac{\pma}{200,000}\) or 1% of the gross income whichever is higher plus 30% of the gross income
  - E. \(\frac{\text{\tinc{\text{\tinc{\text{\tinc{\tint{\text{\tin}\text{\tetx{\text{\tetx{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\text{\text{\texi}\titt{\text{\text{\text{\texi}\text{\text{\text{\text{\tet{\text{\text{\text{\text{\text{\texi}\tint{\text{\text{\texit{\t
- 6. When a person dies and leaves no valid will, he is said to have died
  - A. Intestament
  - B. Intestate
  - C. Intrust
  - D. Intestator
  - E. Intrustee
- 7. The following are tax exempt items under the Personal Income Tax (Amendment) Act 2011. **EXCEPT** 
  - A. Consolidated Relief Allowance
  - B. National Housing Fund contribution
  - C. National Health Insurance Scheme
  - D. Life Assurance Premium
  - E. Gratuities

- 8. The assessment raised at the discretion of the tax authority where no tax returns have been filed after the due date is
  - A. Provisional assessment
  - B. Additional assessment
  - C. Administrative assessment
  - D. Special assessment
  - E. Self assessment
- 9. In June 2013, goods were sold (VAT exclusive) to its final consumers for \(\frac{\pma}{8}800,000\) by ASEYE Enterprises. ASEYE Enterprises had in May 2013 paid \(\frac{\pma}{6}20,000\) to the supplier of its major inputs, who is also a registered vatable person.

What is the amount of VAT payable to the relevant tax authority by ASEYE Enterprises?

- A. ₩7,095
- B. N8.571
- C. ₩10,476
- D. ₩31.000
- E. ₩180.000
- 10. The unrelieved loss that cannot be carried forward upon cessation of business is known as
  - A. Carried forward loss
  - B. Final loss
  - C. Cessation loss
  - D. Back duty loss
  - E. Terminal loss
- 11. For how many years can unrelieved capital allowances in the year of cessation be carried back and set off against profits of preceding years under the Companies Income Tax Act CAP C21 LFN 2004?
  - A. 2 years
  - B. 3 years
  - C. 4 years
  - D. 5 years
  - E. 6 years

- 12. The difference between the total income and the allowable expenses of an Estate, Trust or Settlement is known as
  - A. Computed income
  - B. Trust income
  - C. Gross income
  - D. Net income
  - E. Reserved income
- 13. The abridged Statement of Comprehensive Income of Alhaji Adamu, proprietor of Solomon Adamu Trading Enterprises for the year ended 31 December, 2013 was as shown below:

Gross Profit for the year	Ħ	<del>N</del> 520,000
Less Expenses:		
Deprecation	28,000	
Legal expenses (income tax appeal)	5,000	
Donation to XYZ political party	3,000	
Other allowable expenses	300,000	
•		336,000
Net profit		184,000

What is the adjusted profit?

- A. ₩184,000
- B. ₩212,000
- C. ₩215,000
- D. ₩217,000
- E. ₩220,000
- 14. Minimum tax is **NOT** applicable to a company where
  - A. It is carrying on agricultural business
  - B. At least 25% of its equity is imported
  - C. The company has not been in operation for more than four years from its commencement of business
  - D. At most 25% of its equity is imported
  - E. (A), (B) and (C) above

- 15. Stamp duties are administered by the
  - A. Commissioner of Stamp Duties
  - B. Minister of Stamp Duties
  - C. Director of Stamp Duties
  - D. Governor General of Stamp Duties
  - E. Controller General of Stamp Duties
- 16. Tertiary Education Tax currently applicable to companies, under the Tertiary Education Trust Fund Act, 2011 is 2% of
  - A. Total Profit
  - B. Gross Profit
  - C. Assessable Profit
  - D. Adjusted Profit
  - E. Net Profit After Tax
- 17. Under the Companies Income Tax Act CAP C21 LFN 2004, penultimate year of assessment is peculiar to
  - A. Commencement of business
  - B. Change in accounting date
  - C. Dissolution of partnership
  - D. Loss relief
  - E. Cessation of business
- 18. What is the rural investment allowance rate where a company provides only water for its own use?
  - A. 100%
  - B. 50%
  - C. 30%
  - D. 15%
  - E. 5%

19. Mark Limited purchased a machine in July 2009 for №1,580,000 and the machine was sold on 28 September, 2012 for №850,000 while the tax written down value as at the time of the disposal was №97,500.

What is the balancing adjustment?

Α.	Balancing allowance of	₩653,000
B.	Balancing charge of	₩752,500
C.	Balancing allowance of	₩1,383,000
D.	Balancing charge of	N1,383,000
E.	Balancing charge of	₩197,000

- 20. Within how many days will any excess withholding tax be refunded by the Federal Inland Revenue Service (FIRS) in accordance with the provisions of the Companies Income Tax Act CAP C21 LFN 2004?
  - A. 20 days
  - B. 15 days
  - C. 10 days
  - D. 90 days
  - E. 30 days

SECTION A: PART II SHORT-ANSWER QUESTIONS

(20 Marks)

#### ATTEMPT ALL QUESTIONS IN THIS SECTION

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

- 1. Any company which incurs qualifying capital expenditure costing №500,000 or more should obtain a certificate known as ...... from the Inspectorate Division of the Federal Ministry of Industries.
- 2. An employment, the duties of which are wholly performed outside Nigeria save during any temporary visit of the employee to Nigeria is ......
- 3. Which formula must precede an Excel calculation in an electronic spreadsheet presentation?
- 4. What is the statutory time limit stipulated by the Companies Income Tax Act CAP C21 LFN 2004 for filing the names and addresses of new customers by Banks?

- 5. How many members of the Joint Tax Board or their representatives must be present to constitute a quorum for a meeting?
- 6. State any **TWO** conditions that make a tax assessment final and conclusive.
- 7. A tax estimate based on the tax paid by the taxpayer in the preceding year of assessment is ......
- 8. A person who receives an Annuity which may be charged on income of an Estate, Settlement or Trust is referred to as......
- 10. What is the treatment of stamp duties on an increase in share capital in the determination of adjusted profit of a business enterprise?
- 11. When there is a gap between basis periods in a change of accounting date scenario, which year is the gap deemed to belong to, for purpose of capital allowances calculation?
- 12. Adeola Enterprise is registered for VAT purposes. Goods worth \(\frac{\pmathbf{N}}{100,000}\) were sold in March 2014. The organisation also granted discount of 2\% to its customers. What is the invoice amount?
- 13. Under the Pay As You Earn (PAYE) scheme, an employer shall within ...... of commencement of business deduct tax from emoluments of his employees and remit same to the relevant tax authority.
- 14. Dividend received by a Nigerian company from another Nigerian company after deduction of withholding tax is referred to as ......
- 15. What is the time limit within which the right of election previously exercised can be revoked?
- 16. Given that Capital Allowance is ₩824,000, total profit is ₩17,176,000 and Assessable Profit is ₩18,000,000, what is the Tertiary Education Tax payable?
- 17. Assuming that Egoli Nigeria Limited paid a dividend of \$60 million while its total profit for 2013 assessment year (based on the accounts to 31 December, 2012) was \$46 million.
  - What is the tax liability of the company in 2013 assessment year?

- 18. A backduty assessment can be carried out by the relevant tax authority on a taxpayer within ...... years before the year of examination.

# SECTION B: ATTEMPT ANY FOUR QUESTIONS IN THIS SECTION (60 Marks) QUESTION 1

"A corporate tax payer carrying on an existing business is required by Companies Income Tax Act CAP C21 LFN 2004 to file its self-assessed income tax return and pay, in one lump sum, on the due date of filing the return".

When a company fails to perform its statutory obligations as spelt out above within the statutory time allowed, the Companies Income Tax Act empowers the Federal Inland Revenue Service to enforce payment and/or recover the tax due.

### You are required to:

Enumerate and discuss any **FOUR** steps/measures the relevant tax authority is allowed by law to adopt in recovering the unpaid tax. (15 Marks)

#### **QUESTION 2**

a. Bibilari Nigeria Limited commenced business on April 1, 2008 and has made available the following adjusted profits for the respective years:

		₩
Seven months ended	31/10/2008	70,000
Year ended	31/10/2009	240,000
Year ended	31/10/2010	180,000
Year ended	31/10/2011	135,000
Period ended	31/12/2012	260,000
Year ended	31/12/2013	240.000

### You are required to:

Compute the assessable profits for all the relevant tax years assuming that the company takes advantage of any option available to it to minimise its tax liability.

(10 Marks)

b. In the context of withholding taxes, not all dividends paid by a Nigerian company suffer withholding taxes.

### You are required to:

List any **FIVE** dividends that are exempt from tax in Nigeria. (5 Marks) (Total 15 Marks)

### **QUESTION 3**

- a. State any **THREE** conditions that must be met before donations can be allowed as an expense. (3 Marks)
- b. Mrs. Eloho Ola, who resides in Lagos, has been trading for several years. The Statement of Comprehensive Income of her business for the year ended 31 December. 2012 is as shown below:

Gross Profit 1,040,1	
Drafit on sale of vehicle	20
Profit on sale of vehicle 36,0	οu
$\overline{1,076,1}$	<del>3</del> 0
Less: Expenses	
General administration 56,250	
Staff salaries 198,600	
Stationery and printing 29,370	
Postage and telephone 23,640	
Electricity 74,540	
Entertainment 41,640	
Vehicle repairs and maintenance 55,200	
Bank charges 8,440	
Donations 12,540	
Periodical and technical journals 3,000	
Audit and accountancy fee 36,300	
Defalcation and embezzlement 20,000	
Repairs and renewals 38,820	
Depreciation 12,210	
VAT paid on equipment 2,020	
Bad and doubtful debts – Specific <u>17,533</u>	
(630,10	<u> (3)</u>
Net Profit 446,0	<u>27</u>

You are provided with the following additional information:

- (i) Legal expenses of \$36,300, which was included in staff salary but related to capital items
- (ii) Donations were to a local charity. None of her employees benefited from it
- (iii) She agreed with the Inspector of Taxes that one quarter of vehicle repair and maintenance related to private use
- (iv) Further examination of accounts revealed that salary of ₦36,360 was paid to an unknown person
- (v) The Manager (Finance) perpetrated 75% of the defalcation
- (vi) Allowable expenses of \(\pm23,000\) have been omitted from the accounts
- (vii) Repairs and renewals comprised of:

	¥
Partitioning of new office	13,520
Repairs to plant and machinery	17,635
Repairs of the roof of the old office	<u>7,665</u>
	38,820

(viii) Agreed capital allowance on qualifying capital expenditure was \$13.500.

#### You are required to:

Compute the income tax payable for the relevant tax year. Ignore capital gains tax computation. (12 Marks)

(Total 15 Marks)

#### **QUESTION 4**

Mr. Jonathan Ekpudu retired from the Public Service of Edo State Government on 31 March, 2012. He subsequently secured employment with a public limited company based in Abeokuta, Ogun State, on 1 July, 2012 as Human Resources Manager.

The following information has been provided by Mr Ekpudu:

- (i) Salary 1 January to 31 March, 2012: \\ 180,000 per month.

- (iii) Pension income effectively from 1 April, 2012: \alpha360,000 per annum
- (iv) Transport allowance-new employment: \$\frac{1}{2}40,000 per annum
- (v) Rent allowance new employment: \\ \text{\pm}120,000 per annum
- (vi) Contributions to the National Housing Fund and National Pension Scheme: 2½% and 7½% of consolidated gross income respectively.
- (vii) Rental income received (Gross)

	₩
- 3/3/2011	12,235
- 9/8/2011	24,226
- 20/7/2010	15,200
- 2/12/2010	7,800

- (viii) Mr. Ekpudu is married and has four children, aged between 10 months and 19 years. All except one, named Junior aged 19 years are still in school. Junior is however unemployed.
- (ix) Mr. Ekpudu has a life assurance policy on his eldest son, Junior, with sum assured of \\$500,000 and annual premium of \\$35,000.
- (x) His aged parents live with him. They have no income of their own.

### You are required to:

Compute the personal Income tax payable by Mr. Ekpudu for 2012 year of assessment. (Total 15 Marks)

#### **QUESTION 5**

a. The global income statement of Safety First Airways Limited, a foreign airline operating into Nigeria for the year ended 31 December, 2013.

	₩′000	<b>₩</b> ′000
Transportation Income:		
Income from passengers, cargo and mails:		
Income derived outside Nigeria	62,000,000	
Income derived in Nigeria	2,000,000	64,000,000
Less: Transportation Expenses:		
Salaries and other expenses	46,000,000	
Depreciation	6,400,000	
Other expenses not allowed	<u>3,600,000</u>	(56,000,000)
Net Transportation Profit		8,000,000

#### Other Income:

Income from properties (Net)	500,000	
Income from maintenance (Net)	1,000,000	
Income from duty free shops (Net)	1,000,000	
Income from catering (Net)	<u>1,500,00</u>	(4,000,000)
Net profit		12,000,000

### You are required to:

Determine the tax payable in Nigeria by Safety First Airways Limited
(9 Marks)

b. In relation to Companies Income Tax Act, explain briefly the following:

(i)	Back Duty Assessment	(2 Marks)
(ii)	Service of Notice of Assessment	(2 Marks)
(iii)	Final and Conclusive Assessment	(2 Marks)
		(Total 15 Marks)

#### **QUESTION 6**

- a. Stamp duty is levied on most legal instruments. You are required to list any **THREE** instruments that are required by law to be stamped and any **TWO** instruments that are specifically exempted. (5 Marks)
- b. (i) Explain briefly any **TWO** benefits of the system of Value Added Tax (VAT).
  - (ii) State any **THREE** goods and services exempted from VAT. (3 Marks)
- c. List any **FIVE** offences prescribed by the provisions of Part V of the Value Added Tax Act 2007 (as amended) and state the respective penalties applicable to liable taxable persons. (5 Marks)

(Total 15 Marks)

### **SOLUTIONS TO SECTION A**

### PART I MULTIPLE-CHOICE QUESTIONS

- 1. C
- 2. E
- 3, C
- 4. Α
- 5. C
- 6. В
- 7. Α
- 8, C
- 9, C
- 10. Ε
- 11. D
- 12. Α
- 13. E
- 14. D
- 15. Α
- 16. C
- 17. E
- 18. C
- 19. В
- 20. D

### **Workings**

N

**VAT** output 40,000 9. (5% of <del>N</del>800,000)

Less: VAT input

29,524

(5/105 x 620,000)

VAT payable

<u>10,476</u>

N1	1
	T-

13. Net profit per accounts 184,000

Add: Disallowable expenses:

Depreciation 28,000 Legal expenses 5,000

(income & appeal)

Donation to XYZ political party 3,000 36,000
Adjusted Profit 220,000

19. ₩

Sales proceeds 850,000
Tax written down value (97,500)
Balancing charge 752,500

NOTE: Balancing charge restricted to the total

capital allowance previously claimed of (41,580,000 - 497,500)

= ₩1,482,500

### **EXAMINERS' REPORT**

The questions test the candidates' understanding of the various areas of the syllabus.

Candidates demonstrated fair understanding of the questions and performance was average. The commonest pitfall was the inability of the candidates to understand the basic principles of taxation.

It is recommended that candidates should read widely.

### PART II SHORT-ANSWER QUESTIONS

- 1. Acceptance Certificate
- 2. Foreign employment
- 3. = (Equal to)
- 4. 7 days
- 5. Seven members or their representatives
- 6. (i) No valid objection or appeal has been lodged
  - (ii) Total profit has been agreed with the tax payer
  - (iii) Total profit has been determined by the Tax Appeal Tribunal
- 7. Provisional Assessment

- 8. An Annuitant
- 9. Current year loss relief and Carry forward loss relief
- 10. Disallowed as an expense
- 11. The gap is deemed to form part of the latter year of assessment
- 12. <del>¥</del>102,375
- 13. 6 months
- 14. Franked Investment Income
- 15. Twelve (12) months after the end of third year of assessment
- 16. ¥360,000
- 17. ₩18 million (i.e. 30% of ₩60 million)
- 18. Six (6)
- 19. Signed and Signature
- 20. Balancing charge

### Workings

Q12 ₩

Sales proceeds 100,000 Less: Discount (2½%) 2,500 97,500

Add: 5% VAT <u>4,875</u> Invoice amount <u>102,375</u>

### **Q16**

2% of assessable profit =  $2\% \times 18,000,000$ =  $\frac{1360,000}{1}$ 

### **Q17**

 $30\% \times 60,000,000 = 18,000,000$ 

### **EXAMINERS' REPORT**

The short-answer questions test candidates' understanding of basic principles of taxation.

Candidates demonstrated fair understanding of the questions and performance was average. The commonest pitfall was the inability of the candidates to understand the basic principles of taxation.

It is recommended that candidates should read widely in order to perform well.

#### **SOLUTIONS TO SECTION B**

### **QUESTION 1**

If payment of any tax due is not made within the time limit as specified by the demand notice, the relevant tax authority may for the purpose of enforcing payment of tax due:

- a. Raise final demand notice:
- b. Issue second notice reminding the tax payer of the power to distrain;
- c. Exercise power of distrain on the tax payer's properties; and
- d. Approach the Court to enforce payment.

### **Demand Notice**

This is a notice from the relevant tax authority requesting the tax payer to pay the amount outstanding. This notice addresses the fact that non payment by the tax payer would leave the tax authority with no choice than to take further measures in ensuring the recoverability of such tax.

### Notice of Power to Distrain

The law allows the relevant tax authority to take further steps in ensuring the recoverability of its tax by informing the tax payer of its power by the relevant Act to distrain on such tax payer's properties, should the failure to pay persists.

### Distrain on taxpayer's properties

Subject to the provisions of S.96, the tax authority will recover the amount of tax due by sale of anything distrained. The authority to distrain under this section shall be in such form as the relevant tax authority may direct, and that authority shall be sufficient warrant and authority to levy by distress the amount of tax due.

Things distrained under this section may, at the cost of the taxable person, be kept for fourteen days and at the end of that time, if the amount due in respect of the tax and the cost and charges of and incidental to the distress are not paid, they may be sold at any time thereafter.

### Approach the Court

If the sale of distrained properties is not enough to recover in full the liability of a tax payer, the relevant tax authority can further approach the court for enforcement of the outstanding balance.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of the measures that can be adopted in recovering unpaid taxes.

Most of the candidates do not understand those measures that can be adopted and performance was below average. The commonest pitfall was measures proffered by the candidates which were contrary to the provisions of the Act.

Candidates are advised to cover the syllabus adequately and pay attention to the various provisions of tax laws.

### **QUESTION 2**

a. Bibilari Nigeria Limited
Computation of Assesable Profits
for all Relevant Years of Assessment

Tax payer's right of election

Assessable profits

1/4/08 - 31/12/08

1/4/08 - 31/10/08

1/11/08 - 31/12/08

2009 PYB (1/4/08 - 30/3/09)

1/4/08 - 31/10/08

1/11/08 - 30/3/09

1/11/08 - 30/3/09

2010 PYB (1/11/08 - 31/10/09)

(a)

100,000

(a)

170,000

(a)

170,000

(a)

170,000

(a)

170,000

(b)

240,000

(a) + (b)

410,000

2009 Actual (1/01/09 - 31/12/09)

1/1/09-31/12/09 = 
$$\frac{10}{12}$$
X  $\frac{12}{12}$ 40,000

1/1/09-31/12/09 =  $\frac{10}{12}$ X  $\frac{12}{12}$ 40,000

1/1/09-31/12/09 =  $\frac{10}{12}$ X  $\frac{12}{12}$ 40,000

1/1/09-31/12/09 =  $\frac{10}{12}$ X  $\frac{12}{12}$ 40,000

1/1/09-31/12/09 =  $\frac{30,000}{12}$  230,000

Actual (1/1/10 - 31/12/10)

2010

$$1/1/10 - 31/10/10 = {}^{10}/_{12} \times \frac{180,000}{1} = 150,000$$

$$1/11/10 - 31/12/10 = {}^{2}/_{12} \times \frac{135,000}{1} = \frac{22,500}{(b) \frac{72,500}{22,500}}$$
(a) + (b)

402,500

Bibilari Nigeria Limited will prefer to be assessed to tax in 2009 and 2010 years of assessment based on the actual year basis because doing that will minimise its tax liabilities for those years.

Old D	ate		
2011	1/11/09 - 31/10/10		<u>180,000</u>
2012	1/11/10 - 31/10/11		135,000
2013	$1/11/11 - 31/10/12 = {}^{12}/_{14} \times 260,000$		222,857
	1		
2014	1/11/12 - 31/10/13		
	$1/11/12 - 31/12/12 = {}^{2}/_{14} \times 260,000$	37,142.85	
	1		
	$1/1/13 - 31/10/13 = {}^{10}/_{12} \times 240,000$	<u>200,000</u>	
	1		
			<u>237,142.85</u>
	Total		<u>595,000.85</u>
New Da	te		
2012			
2022	$1/1/11 - 31/10/11 = {}^{10}/_{12} \times 135,000$		112,500
	1		ŕ
	$1/11/11 - 31/12/11 = {}^{2}/_{14} \times 260,000$		37,143
	1		149,643
2013	$1/1/12 - 31/12/12 = {}^{12}/_{14} \times 260,000$		222,857
	1		
2014	1/1/13 – 31/12/13		<u>240,000</u>
			612 500

Bibilari Nigeria Limited will be assessed to tax in 2012, 2013 and 2014 years of assessment based on the new date because that will generate higher tax returns to the Revenue for those years.

Summary	
Year of Assessment	<b>Assessable Profits</b>
	₩
2008	110,000
2009	230,000
2010	172,500
2011	180,000
2012	149,643
2013	222,857
2014	240,000

- b. The following dividends are tax exempt:
  - (i) Dividends distributed by unit trusts
  - (ii) Dividends distributed by companies subject to petroleum profit tax
  - (iii) Dividends distributed by small manufacturing companies
  - (iv) Dividends distributed by export oriented companies
  - (v) Dividends distributed by pioneer companies
  - (vi) Dividends distributed by gas utilization companies
  - (vii) Bonus shares
  - (viii) Capital distributions made by a liquidator of a company in the process of winding up

### **EXAMINERS' REPORT**

The question tests candidates' understanding of the provisions of the law and the practices of the Revenue relating to commencement and change of accounting date.

Candidates demonstrated a better understanding of part (a) of the question than part(b). Performance was average. The commonest pitfall was the inability of the candidates to apply the provisions of the law on commencement of business and change of accounting date.

Candidates are advised to pay attention to areas regarding the treatment of abnormal basis period situations.

### **QUESTION 3**

The conditions for a donation to be allowed as an expense are as follows:

- (a) (i) It must be made to a body or institution approved by the Joint Tax Board
  - (ii) It must not be of capital in nature.
  - (iii) It must be made out of profit.
  - (iv) It must not exceed 10% of the chargeable profit.
  - (v) It is not for a valuable consideration.
- (b) Mrs Eloho Ola

**Computation of Adjusted Profit** 

For the year ended 31 December 2012

	₩	₩
Net Profit as per accounts		446,027
Add Back: Disallowable items		
Legal expenses	36,300	
Vehicle repairs and maintenance $\binom{1}{4}$ x $\$55,200$ )	13,800	
Salary paid to unknown person	36,360	
Defalcation (75% of \text{\text{\$\ext{\$\exiting{\$\text{\$\$\}}\$}\$\text{\$\texitt{\$\texit{\$\text{\$\exititit{\$\exitit{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\	15,000	
Donation to unapproved body	12,540	
Repairs and renewals	13,520	
Depreciation	12,210	
VAT paid on equipment	2,020	141,750
		587,777
Deduct: Non-taxable items:		
Profit on disposal of vehicles		36,030
		551,747
Deduct: Allowable expenses omitted in the accounts		23,000
Adjusted profit		<u>528,747</u>

Mrs Eloho Ola

Computation of Income Tax payable

### For 2012 Tax Year

	₩
Adjusted Profit	528,747
Less: Capital allowances	<u>13,500</u>
Gross Income	<u>515,247</u>

Less: Reliefs and allowances: Consolidated relief allowance ₩200,000 or 1% of gross income,

whichever is higher, plus 20% of gross income,

$=$ $\frac{1}{2}200,000 + \frac{1}{2}10$	)3,049.40 =		( <u>303,049</u> )
			<u>212,198</u>
Income tax payable			
7% of ₩212,198	=		<u>₩14,854</u>
Minimum tax liability (	1% of gross income)	=	<u>₩5,152.47</u>

### **EXAMINERS' REPORT**

The questions test candidates' understanding of the adjustment of profit or loss account submitted by taxpayer for assessment.

Candidates demonstrated poor understanding of the question. The commonest pitfall was the inability of the candidates to differentiate between taxation of individuals and that of companies.

Students are advised to ensure adequate coverage of the syllabus.

### **QUESTION 4**

Mr. Jonathan Ekpudu Computation of Personal Income Tax Payable For 2012 Tax Year

	₩	₩
Consolidated Gross Income:		
Salary (old employment)		540,000
Salary (new employment) $^{6}/_{12}$ x $\maltese$ 1,320,000		660,000
Transport Allowance $\binom{6}{12} \times 40,000$		20,000
Rent Allowance ( $\binom{6}{12}$ x $\aleph$ 120,000)		60,000
Rental Income ( $\$12,235 + \$24,226$ )		<u>36,461</u>
Gross Income		1,316,461
Deduct: Reliefs and allowances		
Consolidated Relief Allowance	463,292	
$(\frac{1}{2}200,000 + 20\% \text{ of } \frac{1}{2}1,316,461)$		
National Housing Fund Contribution	32,912	
(2½% of ₩1,316,461)		
Pension Scheme Contribution	98,735	
(7½% of ₩1,316,461)		<u>594,939</u>
Chargeable Income		721,522

	₩	
1 <sup>st</sup> 300,000 @ 7% =	21,000	
Next 300,000 @ 11% =	33,000	
	18,228	Note:
Next <u>₩121,522</u> @ 15% =		Pension is tax
<u>721,522</u>	72,228	income is tax
	<u>(3,646)</u>	exempt (See
Less WHT on Rental Income (10% of $\$36,461$ )		section 14(1)
Personal Income Tax payable by Mr. Okpudu is	<u>68,582</u>	of Personal
		Income Tax
(Amondmont) Act 2011		

(Amendment) Act, 2011.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of the taxation of employment incomes.

Most candidates attempted this question and performance was just average. Many candidates did not understand the provisions of the Personal Income Tax Amendment Act of 2011 which were examined in this question.

Candidates are advised to be familiar with the provisions of the new law.

### **QUESTION 5**

Safety First Airways Limited Determination of the Tax Payable for 2014 Year of Assessment

	₩
Nigerian Income	<u>2,000,000,000</u>
Total Assessable Profit	
28.125% x <del>\\</del> 2,000,000,000	562,500,000
Less: Depreciation Allowance	
10% x 2,000,000,000	200,000,000
Total profit	<u>362,500,000</u>
Tax liability @ 30%	108.750.000

Minimum tax liability (2% of Nigerian income) =  $\frac{140,000,000}{1}$ 

Note: Income tax payable by the company is  $\frac{108,750,000}{100}$ , since this amount is higher than the minimum tax.

### **Workings**

i. Calculation of the Adjusted profit on transportation business.

	<del>11</del> 000
Net transportation profit per accounts	8,000,000
Add back: Depreciation	6,400,000
Other disallowed expenses	3,600,000
	18,000,000

- ii. Computation of statutory ratios.
  - (a) Adjusted profit ratio:

```
= \underline{18,000,000} \times \underline{100} = \underline{28.125\%}
64,000,000 1
```

(b) Depreciation ratio:

$$= \underline{6,400,000} \times \underline{100} = \underline{10\%}$$
64,000,000 1

### (b)(i) Back Duty Assessment

Back duty assessment becomes applicable where a tax payer or its representative has committed fraud, wilful default or neglect in connection with the tax assessed on it. In this instance, the Federal Inland Revenue Service is empowered to assess such a company to additional tax in order to make good any loss attributable to the fraud, wilful default or neglect.

### (ii) Service of Notice of Assessment

Notice of Assessment shall be served by Federal Inland Revenue Service through registered post to any company or person by whose name a company is chargeable and such notice of assessment must show:

- amount of total profits
- the tax payable
- the place at which such tax should be paid

### (iii) Final and Conclusive Assessment

An assessment shall be final and conclusive where:

- No valid objection has been raised or lodged against the total profits assessed within the statutory time allowed.
- Total profits have been agreed by the tax payer and the Revenue
- Total profits have been determined on appeal.

### **EXAMINERS' REPORT**

The questions test candidates' knowledge of the provisions of the law relating to the taxation of airline businesses and other provisions of the Companies Income Tax Act.

Candidates demonstrated poor understanding of the questions and performance was below average.

The commonest pitfall was the inability of the candidates in understanding the provisions relating to special businesses.

Candidates are advised to cover the area of special businesses for future examinations.

### **QUESTION 6**

Instruments that are required by law to be stamped include the following:

- a. i. Agreements
  - ii. Awards
  - iii. Bonds
  - iv. Leases
  - v. Receipts
  - vi. Contract notes
  - vii. Bill of lading
  - viii. Duplicates and counterparts
  - ix. Marketable securities
  - x. Mortgages
  - xi. Notarial acts
  - xii. Policies of insurance
  - xiii. Settlements
  - xiv. Shares certificates
  - xv. Appraisement
  - xvi. Warrants for goods
  - xvii. Conveyances of sale
  - xviii. Capital of companies
  - xix. Exchange partition
  - xx. Instrument of apprenticeship
  - xxi. Bank notes, bills of exchange and promissory notes

The following are also specifically exempted from stamp duty:

- i. Instruments relating to reconstruction and amalgamation.
- ii. Instruments relating to agreements between the federal government and other foreign governments.
- iii. Transactions and sales of properties of a company under liquidation arising from a compulsory winding up by a court or a creditors voluntary winding up.

### b.(i) Benefits of Value Added Tax

- VAT is a tax on spending and it is very easy to collect.
- VAT base is broader and includes most professional services and banking transaction which were earlier not covered by the former sales tax
- Sources of additional revenue to the government.
- A considerable portion of tax realised on VAT is from imported goods.
   This means that locally manufactured goods will not be placed at a disadvantage.
- Fairness is achieved, since one will pay in accordance with the level of consumption.

### ii. Goods exempted from VAT

- Medical pharmaceutical products
- Basic food items
- Books and educational materials
- Newspaper and magazines
- Baby products
- Commercial vehicles and their spare parts
- Agricultural equipments and products, fertilizer and vetenary medicine.
- Plant, machinery and goods imported for use in the Export Processing Zone or Free Trade Zone.
- Plant, machinery and equipment purchased for utilization of gas in downstream petroleum operations
- Tractors, ploughs and agricultural purposes
- Oil exports

#### Services Exempt iii.

- Medical services
- Services rendered by micro-finance and mortgage institutions
  Plays and performances conducted by educational institutions as part of leaving
- All exported services

#### Offences and Penalties C.

	OFFENCES	PENALTY
(i)	Failure to register	Payment of \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
(ii)	Failure to make attribution or having done so, failure to notify FIRS	Payment of N5,000
(iii)	Failure to notify change of address within one month of such change.	Payment of ¥5,000
(iv)	Failure to keep records and accounts	Payment of $\$2,000$ every month the failure continues.
(v)	Failure to collect tax	Payment of 150% of tax not collected plus interest of 20% flat in practice
(vi)	Failure to submit returns	Payment of №5,000 for every month failure continues
(vii)	Furnishing of false statement and document	On conviction, fine of twice amount falsely declared
(viii)	Evasion of VAT	On conviction, a fine of \$\frac{\pmathbb{H}}{30,000}\$ or twice the amount of tax evaded whichever is greater or imprisonment for a term not exceeding three years.
(ix)	Failure to issue tax invoice for goods sold	On conviction, a fine of 50% of cost of goods or services for which no invoice was issued.
(x)	Resisting, hindering and obstructing officer from performing their duty or inspection	On conviction, a fine of \$\frac{\text{\tinte\text{\tinte\text{\tinte\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex
(xí)	Unauthorized/registered person issuing tax invoice	On conviction, a fine of \$\frac{1}{2}\$10,000 or imprisonment for a term of six months
(xii)	Aiding and abetting the commission of any of the above offences	On conviction, a fine of \$\frac{\text{\tinte\text{\tinte\text{\tint{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex
(xiii)	Joint commission of an offence by principal officers of a company	The officers will be punished as if he committed the offence by him/herself unless proved that it was without him/her knowledge

### **EXAMINERS' REPORT**

The question tests candidates' knowledge of the provisions relating to Value Added Tax (VAT) and stamp duties.

Candidates demonstrated a fair understanding of the question and performance was average.

The commonest pitfall was their inability to relate penalties to offences in these areas.

Candidates are advised to undertake a comprehensive study of VAT and stamp duties.

### THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

### **INTERMEDIATE EXAMINATION - MAY 2014**

### **BUSINESS COMMUNICATION & RESEARCH METHODOLOGY**

Time Allowed: 3 hours

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

### ATTEMPT ALL QUESTIONS IN THIS SECTION

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 following are features of 'grapevine communication' **EXCEPT** 
  - A. Speedy transmission of information
  - B. Transmission of unconfirmed information
  - C. Evidence-based transmission of information
  - D. Transmission of rumour with basis in fact
  - E. Serving as source of feedback to management
- 2. When a person who does not stammer starts stammering while delivering a speech, he is said to be affected by **ONE** of the following
  - A. Non-verbal communication
  - B. Overwhelming emotions
  - C. Stage fright
  - D. Hostile audience
  - E. Lack of preparation
- 3. Which of the following is **NOT** appropriate for a person delivering a speech on a stage to use?
  - A. Podium
  - B. Examples in vernacular
  - C. Code switching
  - D. Glowing jewellery
  - E. Code mixing

- 4. A factory worker sought clarification from his supervisor on a given job description. What type of communication is involved in this encounter?
  - A. Upward
  - B. Downward
  - C. Horizontal
  - D. Informal
  - E. Grapevine
- 5. To which of the following do organizations transmit information?
  - A. Audience
  - B. The environment
  - C. Upward, downward and horizontal receivers
  - D. Internal and external publics
  - E. All channels and networks
- 6. Which of the following is suitable for information exchange on the vertical channel?
  - A. Microsoft works
  - B. Microsoft work
  - C. Database
  - D. The internet
  - E. The intranet
- 7. Which of the following will **NOT** make an effective electronic presentation of a report?
  - A. Knowledge of power point presentation
  - B. Use of illustrations
  - C. Extemporaneous delivery
  - D. Ability to surf the internet
  - E. Speaking to your prepared material

- 8. Mr. Okaka is testing a hypothesis on the number of years spent by an employee and the sales generated. The test statistic values obtained are r=0.8325,  $r^2=0.6931$ ,  $t_{critical}=2.228$  and  $t_{cal}=4.752$ . Mr. Okaka's decision is
  - A. Reject the null hypothesis
  - B. Accept the null hypothesis
  - C. Accept the alternate hypothesis
  - D. Reject alternate hypothesis
  - E. Reject at significance level
- 9. In the linear regression equation of the form  $Y = \beta_0 + \beta_1 X + \varepsilon$ . The value of

$$\beta o + \beta_1 x$$
 is

- A. Linear regression
- B. Linear component
- C. Linear correlation
- D. Linear error
- E. Random error
- 10. Ajagbe Ejo & Company applied regression to the profit and sales (measured in #'m) of the company for one year to obtain y = 2.5 + 0.0048x. This implies that
  - A. The average profit is increased by 0.0048 million
  - B. The average profit is less by 0,0048 million
  - C. The average profit is more than 0.0048 million
  - D. The average profit is exactly 0.0048 million
  - E. The average profit forfeited is 0.0048 million
- 11. A random sample of size 16 was selected from the audit books which gives mean value of 510 and standard deviation 45. Compute the t-test variate given that  $\mu = 540$ .
  - A. 1.67
  - B. 2.67
  - C. 3.67
  - D. 0.67
  - E. 3.67

- 12. A standardized method of acknowledging relevant sources of information and ideas some of which may not have been cited in a report is
  - A. Reference
  - B. Appendix
  - C. Bibliography
  - D. Acknowledgment
  - E. Citation
- 13. Which of the following is **NOT** a part of a bibliography?
  - A. Author's name
  - B. Title of work
  - C. Place of publication
  - D. Pagination
  - E. Author's title
- 14. Which of the following is a major feature of referencing?
  - A. Details are sectionalized and arranged in sequence
  - B. Appears only once in the entire work and at the end of the report
  - C. Cites work for background and further readings
  - D. Citations are listed in alphabetical order by the surname of the first named author
  - E. All works in each section are arranged alphabetically and numbered serially
- 15. The following are reasons for referencing a research work **EXCEPT** 
  - A. Verification of quotations
  - B. Avoidance of plagiarism
  - C. For follow-up
  - D. Acknowledgment of relevant sources
  - E. Emphasizing author's style

- **16.** Which of the following elements is **NOT** contained in the APA referencing format of a journal article?
  - A. Author of article
  - B. Year of publication
  - C. Volume number
  - D. Issue number
  - E. Place of publication
- 17. Which of the following is **NOT** an attribute of a good report?
  - A. Clarity and conciseness
  - B. Factual and objective
  - C. Based on controvertible facts
  - D. Provides direction for decision making
  - E. Contains statement of findings in non-technical language
- 18. Reports are often referred to as the following **EXCEPT** 
  - A. Internal written communication
  - B. Specialized professional writings
  - C. Account of an allegation investigated
  - D. Materials gathered during an interview
  - E. Formal statements of results of proposals
- 19. Which of the following is a method of presenting the outcome of a research?
  - A. Visual presentation
  - B. Correlation coefficient
  - C. Coefficient of determination
  - D. Descriptive analysis
  - E. Random sampling
- 20. Which of the following is **NOT** included in the preliminary section of a research report?
  - A. List of figures
  - B. Dedication
  - C. Table of contents
  - D. Bibliography
  - E. Abstract

SECTION A: PART II SHORT

**SHORT-ANSWER QUESTIONS** 

(20 Marks)

### ATTEMPT ALL OUESTIONS IN THIS SECTION

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

1. A portable device whose hard drive is a repository of books which can be accessed in electronic format for report writing is known as ..... 2. The sending of identical messages to a vast audience, a large number of people in varying distances is known as..... In an organisation in which departments are deeply divided and built into 3. personal empires, cooperation becomes difficult and communication in the ..... channel is hindered. Hoarding of information and crisis are factors that stimulate communication 4. in the ..... channel. 5. The situation in which an occurrence gives rise to the idea to be communicated and sensitizes the sender to the need to communicate is known as ..... The project manager at the site of a refinery construction project who plans to 6. travel in six months time but wants to show the extent of work done at the moment would write a ..... report to the financiers of the project. The type of noise that results from acute toothache that disorients the receiver 7. is ..... noise. 8. A statistical test that is used to determine the goodness of fit and test of independence is known as ..... The aggregate dispersion of the individual data values across the various 9, factor levels is known as ..... 10. The dispersion among the factor sample means is known as ..... The degree of freedom for F (critical) is ..... 11. 12. The measurement scale that involves categorizing cases into distinct categories is known as .....

13.	The validity of a test established by judging how adequately the test samples behaviour represents the universe behaviours from which sample was taken is					
14.	A tentative statement, subject to empirical test, about the expected relationship between variables is known as					
15.	A measure of whether a questionnaire produces the same or similar responses with multiple administration of the same or similar instrument is known as					
16.	The type of data that is collected directly from the source is known as					
17.	A set of questions that is used to elicit respondents' opinions on a subject of interest is known as					
18.	The extent to which a study evaluates the intended hypothesis is known as					
19.	The type of information that has occurred or has been collected in the past is known as					
20.	The avenue through which electronic libraries can be accessed is known as					
SECT	ION B: ATTEMPT ANY FOUR QUESTIONS (60 Marks)					
QUESTION 1						
The e-mail has become prominent as a means of exchanging information in the workplace. This tool of communication has a number of advantages and disadvantages.						

**QUESTION 2** 

You have been directed by the Chief Executive Officer of your company to investigate the complaint of the ICT Manager about the deteriorating condition of the computer in his department.

Discuss any **FIVE** disadvantages of the e-mail for information exchange.

(15 Marks)

Write a short report, using the memo format, detailing your discovery and recommendations. (15 Marks)

### **QUESTION 3**

PQR Pension Fund Administrator stated that young people would plan to retire earlier than the old people. A random sample of size 8 was selected from both the current age (X) and the planned retirement age (Y). The data is given below:

Lurrent age (X)	ketirement age
19	7
13	9
11	8
9	11
12	9
25	6
20	7
17	8

### You are required to:

- a. Draw a scatter plot for the two variables. (2 Marks)
- b. Describe the type of relationship between age and retirement plan. (2 Marks)
- c. Compute the correlation coefficient (5 Marks)
- d. Use  $\alpha = 0.01$  to test the hypothesis whether there is any relationship between an individual age and his retirement plan. (6 Marks) (Total 15 Marks)

### **QUESTION 4**

Reference and bibliography are two ways of acknowledging sources of information in research.

- a. State any **THREE** differences between reference and bibliography. (6 Marks)
- b. Using APA format, list in a sequential order all the elements contained in book referencing. (6 Marks)
- c. List any **THREE** features of an Appendix.

(3 Marks)

(Total 15 Marks)

### **QUESTION 5**

Research designs aim at identifying variables and their relationship with a view to obtaining relevant data in a research study.

Write short notes on each of the following types of research designs.

a. Survey design (5 Marks)

b. Experimental design (5 Marks)

c. Ex-post-facto design (5 Marks)

(Total 15 Marks)

### **QUESTION 6**

Explain the following concepts in relation to hypothesis testing:

- (i) Research hypothesis
- (ii) Null hypothesis
- (iii) Alternate hypothesis
- (iv) Level of significance
- (v) Test statistic
- (vi) Critical value
- (vii) Two-tail test
- (viii) One-tail test
- (ix) Type I error
- (x) Type II error (15 Marks)

### **SOLUTIONS TO SECTION A**

### PART I MULTIPLE-CHOICE QUESTIONS

- 1. C
- 2. C
- 3. D

- 4. Α
- 5. D
- 6. Ε
- 7. D
- 8, Α
- 9, В
- 10. Α
- 11. В
- 12. C
- 13. Ε
- 14. D
- 15. Ε
- 16. E
- 17. C
- 18. D
- 19. Α
- 20. D

### **Tutorial**

No. 11 The t – variate is given by

$$\mathbf{t} = \boxed{\frac{1}{x - \mu}}$$
$$\mathbf{s} / \sqrt{n}$$

Substituting the values, we get 
$$t = \frac{|510 - 540|}{|45/\sqrt{16}|} = \frac{|-30|}{|45/4|}$$
  
=  $\frac{30}{11.25} = 2.67$ 

### **EXAMINERS' REPORT**

The questions test candidates' understanding of concepts and principles in Business Communication and Research Methodology. The questions cover all the three parts of the paper. About 80% of the candidates scored 50% and above of the allocated mark. Candidates should endeavour to extend this level of performance to other areas of the subject for better performance in future.

### PART II

### **SHORT-ANSWER QUESTIONS**

- 1. e-reader
- 2. Mass communication
- 3. Horizontal
- 4. Grapevine
- 5. Stimulus/ideation/conception stage
- 6. Progress
- 7. Physiological
- 8. Chi-square
- 9. Total variation
- 10. ANOVA/Analysis of variance
- 11.  $F(K-1, V-K) = K-1 \over N-K$
- 12. Nominal Scale
- 13. Content validity
- 14. Hypothesis
- 15. Reliability
- 16. Primary data
- 17. Questionnaire
- 18. Hypothesis testing
- 19. Historical data/secondary data
- 20. Internet

### **EXAMINERS' REPORT**

The questions test candidates' understanding of concepts and principles in Business Communication and Research Methodology.

The questions cover all the three parts of the syllabus. About 15% of the candidates scored 50% and above of the allotted marks.

The major pitfall of the candidates was their inability to understand the concepts and principles tested.

Candidates should familiarise themselves with concepts and principles in the subject by studying ICAN Study Pack and relevant books on the syllabus. They should also make use of past editions of the ICAN Pathfinders.

### SOLUTIONS TO SECTION B

### **QUESTION 1**

- (i) Delivery Problems: An e-mail may not be delivered. This is because the sending and delivery of mails rest on technology which sometimes fails. The e-mail may sometimes not get to the intended receiver. Also, an e-mail may be routed to the spam folder on delivery. This means the receiver who would normally check his/her inbox would not find the mail and would not know that the mail has been delivered. In this scenario, the aim of the sender remains unaccomplished.
- (ii) Junk mail: With the increasing popularity of e-mail as a means of information exchange, a level of abuse has crept into its use. This is because high volumes of junk and unsolicited e-mails peddling products and services in which the receiver has no interest flood his/her inbox. Also, some of these unsolicited mails seek to defraud the receiver or draw him/her into a scam one way or another.

Where a receiver ignores mails because of these junk e-mails, he ends up missing out on accessing valuable mails. On the other hand, reading every mail that comes your way in the course of the work day is a waste of time.

(iii) Formality Dilemma: e-mails come from all sources; some are written as letters, others are not. There is then a formality and style dilemma. Are e-mails formal or informal? They are both. Are e-mails letters or just messages? They could be both. Also, are they always formal? No, they

could be formal or informal. Many times, however, the receiver of an e-mail reacts as he/she would to most e-mails because most e-mails are informal. This may then make him/her respond in an informal style or tone to a formal e-mail.

- (iv) Illusion of Real Time Delivery: Many users of the e-mail have the illusion that it is delivered and read real time. While the e-mail has improved tremendously the time in which messages are sent and received, it does not always facilitate real time communication. It cannot, in this regard, be compared to the telephone which assures real time communication.
- (v) Unintended errors: The facilitation of speedy exchange of information, despite not occurring in real-time, has its own way of triggering certain unintended and highly damaging mistakes. While attempting to forward parts of an e-message to another recipient, e-mail users mistakenly forward other contents that could have been left out. Also, incomplete messages are sometimes sent because of the ease of sending e-mails by just clicking 'send'.
- (vi) Virus Attacks: e-mails and particularly e-mail attachments broadcast viruses. Some virus broadcasters even use e-mail primarily as the means of conveyance of viruses. e-mails then endanger computers and devices that open them.
- (vii) Non-confidentiality: e-mails are not absolutely confidential. For a workplace e-mail, the system administrator has access to all traffic, including e-mails and can as such read whatever is sent.
- (viii) Dependence on Access to the Internet: Access to one's e-mail is dependent on internet access. Where there is no internet access, one has no access to e-mail. In the Third World, and even in advanced societies, there are places where access to the internet is problematic or only available on some devices that can connect to a wired access or other access types.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of the disadvantages of e-mail in the work place.

About 75% of them attempted the question. Out of this number, 45% of them scored 50% and above of the allocated mark.

### The major pitfalls are:

- i. lack of adequate technical understanding of the question's demand
- ii. discussion of the general problems of the country relating to the social question's millieu.

Candidates should study electronic communication in the work-place for better performance in future.

### **QUESTION 2**

OGBULOGO OIL & GAS LTD.

Internal Memorandum

From: Internal Auditor To: C.E.O

Ref No: OG/ICT/175 Date: 27<sup>th</sup> May, 2014

Subject: THE STATE OF THE COMPUTER IN ICT DEPARTMENT

As directed, I have investigated the condition of the computer in

INTRODUCTION: the ICT Department. 1, therefore, report as follows:

PROCEDURE: 1 visited the computer room of ICT Department and saw things

myself. I went round the environment and inspected the storage facilities of the department. I asked the manager and the staff pertinent questions. I saw the old requisition notes which

indicated the dates of delivery of the computers.

FINDINGS: a. The computer is ten years old and obsolete

b. The life span of a computer is five years at the most

c. The computer is completely unserviceable

d. The computer is no longer being used for processing data or

producing documents

e. The department relies on other departments to process data and

documents

CONCLUSIONS: a. The computer needs to be replaced

- b. The state of the computer is affecting the department's productivity negatively
- c. The ICT Department wastes man-hours unnecessarily on getting its job done on computer

RECOMMENDATION:

- a. The computer should be replaced
- b. Competitive quotations should be obtained from three dealers and order placed on the basis of best selling prices together with the best trade-in prices for the old computer.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of writing report using the memorandum format.

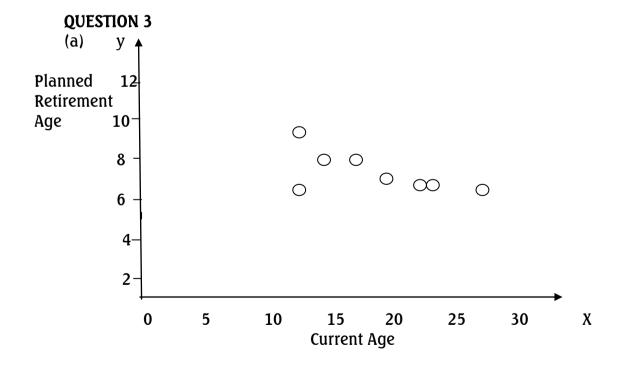
About 70% of the candidates attempted the question. About 40% of this number scored 50% and above of the allocated mark.

The commonest pitfalls were lack of understanding of:

- i. the memo format as a form of communication
- ii. the format of report writing

In addition, their organization ability and expression were poor.

Candidates should endeavour to learn how to write reports and the various forms of business communication.



b. The relationship that exists between the current age and retirement plan age is negative correlation. This is because the scatter plots exhibit a downward (negative) sloping nature depicting that as the current age (x) increases, the planned retirement age (y) decreases, hence, the plot shows a negative relationship.

C.

Using

the

Х	Y	XY	X <sup>2</sup>	Y <sup>2</sup>
19	7	133	361	49
13	9	117	169	81
11	8	88	121	64
9	11	99	81	121
12	9	108	144	81
25	6	150	625	36
20	7	140	400	49
17	8	136	289	64
126	65	971	2190	545

product moment correlation coefficient (r)

$$\mathbf{r} = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\left[\sum (X - \bar{X})^{2}\right]} \left[\sum (Y - \bar{Y})^{2}\right]} = \frac{n\sum XY - (\sum \bar{X})(\sum y)}{\sqrt{\left[n\sum X^{2} - (\sum \bar{X})^{2}\right]} \left[n\sum Y^{2} - (\sum \bar{Y})^{2}\right]}$$

Substituting values into the formula

$$\mathbf{r} = \frac{8(971) - (126)(65)}{\sqrt{8(2190) - (126)^2 8(545) - (65)^2}}$$

$$= \frac{7768 - 8190}{\sqrt{[17520 - 15876][4360 - 4225]}}$$

$$= \frac{-422}{\sqrt{(1644)(135)}}$$

$$= \frac{-422}{\sqrt{221940}} = \frac{-422}{471.105}$$

r = -0.896

d. To test the required hypothesis, we use the following steps:

Step 1

 $H_o$ : There is no relationship between an individual's age and his retirement plan  $H_o$ :  $\ell=0$ 

 $H_1$ : There is relationship between an individual's age and his retirement plan  $H_1$ :  $\ell \neq 0$ 

Step 2: The test statistic is

$$t = \sqrt{\frac{1-r}{n-2}}$$

Where r = correlation coefficient = 0.896

$$t = \frac{-0.896}{\sqrt{\frac{1 - (0.896)^2}{8 - 2}}} = \frac{-0.896}{\sqrt{\frac{1 - (0.803)}{6}}}$$

$$t = \frac{-0.896}{\sqrt{\frac{0.197}{6}}} = \frac{-0.896}{\sqrt{0.033}} = \frac{-0.896}{0.182}$$

$$t_{cal} = -\underline{4.923}$$

Step 3:

Df = n - 2  
= 8 -2 = 6  
At 
$$\alpha$$
 = 0.01,  
 $t_{tab}$  = 3.71,

**Step 4**: if  $t_{cal} < t_{tab}$ , we do not reject the null hypothesis, otherwise reject the null hypothesis.

Therefore, since  $t_{\text{cal}} > t_{\text{cal}}$  (i.e. 4.923 >3.71), we reject the null hypothesis and conclude that there is a relationship between the individuals age and their retirement plans.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of relationship and degree of relationship. About 75% of the candidates attempted the question. About 65% of those who attempted the question scored 50% and above of the allocated mark. The candidates' commonest pitfall was lack of adequate understanding of test statistic.

Candidates should familiarize themselves with hypothesis testing for improved performance in future.

### **QUESTION 4**

- a. Differences between reference and bibliography
  - i. Reference consists of all documents that are cited in the text of the work, while bibliography contains everything that would appear in the reference section including other publications that are useful but not cited in the work.
  - ii. Reference is listed in alphabetical order by the surname of the first-named author. When no author is listed, the entry is stated with the word of the title of the article or the sponsoring organization, but bibliography details are sectionalized and arranged in sequence.
  - iii. A bibliography cites work for background and further reading while reference list contains all the references cited in the work.
  - iv. A bibliography appears only once in the entire work, and it appears at the end of the work, but end-of-chapter references appear at the end of every chapter.
- b. The following elements are contained in book referencing using APA format.
  - i. Author's name or Editor's name
  - ii. Year of publication
  - iii. Title of book
  - iv. Place of publication
  - v. Publisher

An example of a book reference using APA format.

Cozby, P. C. (2000). *Methods in Behavioural Research*. California: Mayfield Publishing Company

Note: The title of the book must be italicised

- c. The following are the features of an appendix:
  - i. It should begin on a new page.
  - ii. It should carry a label in the upper case arranged sequentially. For example, Appendix A, Appendix B, or Appendix I, Appendix II.
  - iii. It should have a title reflecting the information on the appendix.
  - iv. The information on the appendix is then presented.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of differences between Reference and Bibliography, and features of an Appendix. About 80% of the candidates attempted the question and about 50% of them scored 50% and above of the allotted mark.

### Candidates' pitfalls were:

- i. lack of adequate understanding of the APA referencing format
- ii. confusing the functions of an appendix with its features.

Candidates are to make use of ICAN's publications for better performance in future.

### **QUESTION 5**

### Survey Design

a. The main characteristic of this design is its lack of control. In this design, the researcher is interested in observing what is happening to the sample subjects without manipulating them. Survey design is divided into two, namely, cross-sectional and longitudinal designs.

In cross-sectional design, observations are made at one or more points in time while longitudinal design's observations are made at different points in time. Examples of studies that make use of longitudinal design include motivation of workers, productivity of employees and profitability levels of organisation over time.

### b. **Experimental Design**

This is a design that enables the researcher to test his/her hypothesis by reaching a valid conclusion about the relationship between the variables being tested.

The selection of this type of design depends on certain factors such as the purpose of the experiment, types of variables to be manipulated and the conditions under which the experiment is conducted.

The major problems of experimental design are those of assigning subject to control group, ways of controlling the variables, how the observations are made and the types of statistical analysis to be used.

### c. **Ex-post-facto Design**

This is a type of descriptive research that is undertaken after the events had taken place and the data are already available. In this kind of research, it is always difficult to manipulate variables because of the existence of data. As a result of this, the data should provide sufficient or adequate information. A researcher only needs to look at the existing data for causes of a problem. This research design seeks to find out the factors that are/were associated with certain results, occurrences, outcomes or types of behavior by analyzing past events or already existing conditions. It is otherwise called retrospective research, i.e. after the event. This type of research method is used when a study is aimed at reporting what had happened.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of types of research designs. About 70% of the candidates attempted the question. The performance was average as about 50% of them scored 50% and above of the allocated mark.

Candidates' pitfall was lack of adequate understanding of the concept tested. They should ensure the coverage of the syllabus in order to understand the various concepts and principles in the paper. They should also make use of ICAN's Study Packs and Pathfinders, and other relevant materials.

### **QUESTION 6**

- i. **Research Hypothesis:** This is a statement of testable relationship between two or more variables. A researcher works to accept or reject a hypothesis before he reaches an effective decision concerning the problem identified.
- ii. **Null Hypothesis:** This is also called hypothesis of indifference which starts by denying the existence of any relationship between sets of variables. This accounts for why a researcher works to reject the null hypothesis. The symbol for null hypothesis is  $H_{\rm o}$ .
- iii. Alternate Hypothesis: This is a directional hypothesis that states in a specific or categorical manner, the type of relationship that exists between sets of variables. This accounts for why a researcher works to accept the alternate hypothesis. The symbol for alternate hypothesis is  $H_{\rm A}$ .

- iv. **Level of significance:** This reflects the magnitude of error allowable to make a research outcome a true one. There are different levels of significance such as .01, .05, .025 etc The .01 level of significance means that a research outcome is 99% correct while there is only 1% error. The .05 means that the research outcome is 95% correct while it contains only 5% error margin.
- v. **Test Statistic:** This a statistical tool used in analysing statistical data collected concerning an identified problem. There are different statistical tools available for use depending on the nature of the problem, the hypothesis and the data collected. Some examples of test statistic include t-test, chi-square, z-test, etc.
- vi. **Critical value:** This is the value extracted from a statistical table which enables a researcher to determine the significance of a relationship between sets of variables. It is usually compared with a statistically calculated value. The calculated value must be greater than the critical value for a relationship between variables to be declared significant.
- vii. **Two-tail Test:** This is also known as non-directional hypothesis which does not indicate a particular direction. A relationship between variables is expected to be either positive or negative. Therefore, it becomes a two-tail test when the hypothesis points to both directions at the same time. eg:-

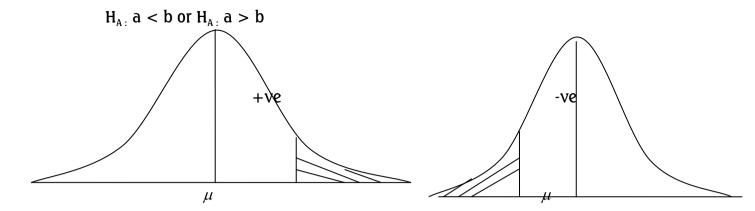
$$H_{0:}$$
  $a = b$   
 $H_{A:}$   $a \models b$ 

It can be illustrated diagrammatically as shown below:

a two-tail hypothesis

viii. One-tail test: This is a hypothesis stated in a specific and directional way. It could be a positive direction only or negative direction only. It is the opposite of a two-tail test.  $H_{0:}$  a=b,  $H_{A:}$  a=b It is shown in the diagram below:

 $H_{0:} a = b,$ 



- ix. **Type I error:** This is an error committed when a researcher rejects a true null hypothesis instead of accepting it. For example, a null hypothesis states "Men do not exhibit more fraudulent behaviour than women." The result at the end shows that men actually exhibit more fraudulent behaviour than women a true null hypothesis is rejected, the researcher has committed Type 1 error.
- x. **Type II error:** This is the opposite of Type I error and it occurs when a researcher accepts a non-true hypothesis for example, if result actually confirms that women indeed exhibit more fraudulent behaviour than men, then the hypothesis that men are not more fraudulent should be accepted and not rejected. When this happens, Type II error has been committed.

### **EXAMINERS' REPORT**

The question tests candidates' understanding of theoretical aspects of basic statistical terms applicable in business research. About 85% of the candidates attempted the question. The performance was above average as about 65% of them scored 50% and above of the allotted marks.

Candidates' major pitfalls were:

- i. they muddled up the explanations of some of the concepts
- ii. the expressions used in the presentation were poor.

For better performance in future examinations, candidates should familiarise themselves with basic statistical concepts in research.