THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

PATHFINDER

MAY 2015 FOUNDATION LEVEL EXAMINATIONS

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

FOUNDATION LEVEL EXAMINATIONS - MAY 2015

FINANCIAL ACCOUNTING

Time Allowed: 3 hours

SECTION A: **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 will **NOT** be included as financing activities in the statement of cash flows of a business entity?

   A.   Proceeds from the issue of shares
   B.   Cash dividend paid to shareholders
   C.   Loan from the bank
   D.   Proceeds from disposal of non-current assets
   E.   Proceeds from issue of debentures

2. On 1 January 2013 a motor vehicle, with the expected useful life span of 5 years and residual value of ₦100,000, was acquired for ₦1,600,000. Using sum-of-the-years digit method, what is the second year depreciation provision of the motor vehicle?

   A.   ₦400,000
   B.   ₦426,000
   C.   ₦530,000
   D.   ₦540,000
   E.   ₦600,000

3. A draft financial statements of DS Enterprises revealed that an amount of ₦10,000 expended on repairs of telephone was recorded as motor vehicle expenses. State the entries to reverse this error.

   A.   Dr. Motor vehicle expenses account

Cr. Telephone expenses account

B.   Dr. Telephone expenses account
Cr. Suspense account

C.   Dr. Motor vehicle account
Cr. Suspense account

D.   Dr. Telephone expenses account
Cr. Motor vehicle expenses account

E.   Dr. Suspense account
Cr. Telephone expenses account

4.   The source of data for the recording of sales day book of a business enterprise is

    A.   Returns inward note
    B.   Returns outward note
    C.   Official receipt
    D.   Payment voucher
    E.   Invoice

5.   A vehicle was purchased on 1 January 2011 at a cost of ₦2,000,000 and was depreciated at 25% on cost. It was sold on 31 December 2013 for ₦1,400,000. Full-year depreciation was charged in the years of purchase and disposal.

Required:

Determine the profit or loss on the disposal

    A.   ₦500,000 profit
    B.   ₦500,000 loss
    C.   ₦900,000 profit
    D.   ₦900,000 loss
    E.   ₦1,150,000 profit

6.   Which of the following is **NOT** correct in differentiating between sole trader and limited liability companies?

    A.   A sole trader is fully and personally liable for any losses that the business might make

    B.   Drawings would only appear in the financial statements of a sole trader

    C.   Only companies have share capital

    D.   A sole trader's financial statements are private and never made available to any other equity holder

E.   Companies financial statements are sent to shareholders and may be publicly filed

7. Which of these statements **CANNOT** be defined as income?

   A.   Decrease in economic benefits during the accounting period
   B.   Increase in economic benefits during the accounting period
   C.   Decrease in liabilities
   D.   Gains arising on the disposal of non-current assets
   E.   Activities that enhance the net assets

8. Which of these books of account could be classified as a subsidiary book as well as a ledger?

   A.   Sales day book
   B.   Cash book
   C.   General ledger
   D.   Nominal ledger
   E.   Personal ledger

9. Abalabi Ventures has a credit facility with a local trade supplier. An invoice for purchases has been credited to the suppliers account and wrongly debited to the sales account.

   Which of the following journal entries will correct the error?

   A.   Dr. Sales account   Cr. Supplier account
   B.   Dr. Supplier account   Cr. Sales account
   C.   Dr. Purchases account   Cr. Sales account
   D.   Dr. Sales account   Cr. Bank account
   E.   Dr. Supplier account   Cr. Cash account

   Use the following information to answer questions 10 & 11.

   The accounting officer of a trading outfit wrongly debited the purchase of a non-current asset item to purchases account and credited it to the supplier's account.

10. Which of the following journal entries is appropriate to correct the error?
   A.   Dr. Supplier's account   Cr. Purchases account
   B.   Dr. Purchases account   Cr. Supplier's account
   C.   Dr. Non-current asset account   Cr. Purchases account
   D.   Dr. Purchases account   Cr. Non-current asset account
   E.   Dr. Supplier account   Cr. Non-current asset account

11. The effect of the error on the financial statements, if not detected, would include the following **EXCEPT**

   A.   The purchases in the financial statements will be overstated.

B.   The inventory of the outfit will be understated

C.   The profit of the outfit will be understated

D.   The non-current assets account will be understated

E.   The inventory will be overstated

12. Which of the following provides the origin of accounting information?

    A.   Accounting books

    B.   Source documents

    C.   Ledger

    D.   Cash book

    E.   Subsidiary book

13. Which of the following errors does **NOT** affect the balancing of a trial balance?

    A.   Error of principle

    B.   Casting error

    C.   Transposition error

    D.   Duplication of entries

    E.   Missing entries in the ledger

14. Which of the following is **NOT** an accounting concept?

    A.   Information

    B.   Historical cost

    C.   Consistency

    D.   Accrual

    E.   Going concern

15. When recognising income under the accrual basis, which of the following statements is correct?

    A.   Income is recognised when earned and cash is received

    B.   Income is recognised only when it is not certain that cash will be received

    C.   Income is recognised only when cash is received

    D.   Income is recognised when earned and not necessarily when cash is received

    E.   Accrued income is only recognised in the financial statements.

16. The following information relates to Pingway Enterprises as at 31 December 2013.

                                                  ₦000

Allowance for bad debts brought forward   9,750

Accounts receivable   129,250
Bad debt to be written-off   9,250

Allowances for bad debts should be adjusted to 5% of accounts receivable balance.

What amount of allowance for bad debts would be written-back in 2013 financial year?

A.   ₦15,750
B.   ₦9,750
C.   ₦6,463
D.   ₦6,000
E.   ₦3,750

17.   Where there is no partnership agreement, any capital contribution in excess of the agreed amount attracts

A.   No interest
B.   Interest at the rate of $2^1/_2$% per annum
C.   Interest at the rate of 5% per annum
D.   Interest at the rate of 10% per annum
E.   Interest at the rate of 20% per annum

Use the following information to answer questions 18 and 19

	₦
Balance as per cash book	220,000
Dishonoured cheques	100,000
Bank charges	10,500
Uncredited cheques	70,000

18.   The adjusted cash book balance is

A.   ₦100,000
B.   ₦109,500
C.   ₦155,500
D.   ₦209,500
E.   ₦309,500

19.   The balance as per bank statement is
A.   ₦39,500
B.   ₦41,500
C.   ₦139,500

D.   ₦179,500

E.   ₦239,500

20.   Which of the following assets can be classified as non-current in the financial statements of an entity?

   A.   A tax refund due next year
   B.   A motor vehicle held for resale
   C.   A computer acquired for office use
   D.   Cleaning products used to clean the office
   E.   Closing inventories

SECTION B: ATTEMPT ANY FOUR OUT OF SIX QUESTIONS
(80 Marks)

QUESTION 1

a.   The elements which are directly related to the measurement of profit are Income and Expenses.

   i.   In line with the above statement, what is Income?   (2 Marks)

   ii.   List **TWO** characteristics each of Capital Income and Revenue Income.
                                                          (4 Marks)

b.   Babariga Trading Company has the following extracts from its financial records as at 31 January, 2014:

		₦'000
Jan 1	Cash in hand	50
	Cash at bank	150
	Receivables	300
	Inventory	100
Jan 2	Purchased goods for cash	70
5	Goods Bought from Faleye	500
9	Bought shop fittings and paid by cheque	27
12	Cash sales	129
15	Goods sold to Okonkwo	100
16	Paid Faleye by cheque on account	400
17	Cash sales	350
18	Paid cash into bank	150
20	Bought goods from Faruk	140
25	Sold goods to Shola	150
28	Bought desk-top computer by cheque	70
31	Paid for stationery in cash	40

Required:

Use Journal entries to record the above balances and transactions in the books of Babariga Trading Company. (14 Marks)

(Total 20 Marks)

QUESTION 2

The following is a list of balances extracted from the ledger of Salfo Enterprises:

	₦
Inventory on 1 January 2013	30,600
Revenue	245,340
Purchases	160,200
Salaries and wages	52,110
Furniture and fittings	92,500
Office expenses	16,200
Trade receivables	50,400
Trade payables	22,400
Cash in hand and at bank	6,230
Drawings	15,500
Capital	156,000

Additional information:

		₦
(i)	Inventory on 31 December 2013	38,000
(ii)	Prepaid office expenses	2,300
(iii)	Accrued wages	1,500
(iv)	Depreciation is to be charged on Furniture and Fittings at 10% per annum on cost.	

Required:

Prepare the extended trial balance to include

a.	Initial trial balance	(4 Marks)
b.	Adjustments	(8 Marks)
c.	Adjusted trial balance	(8 Marks)

(Total 20 Marks)

QUESTION 3

Mr. Ken Stevenson keeps single entry books of account. He had the following balances on 1 January, 2013:

	N
Inventory	64,800
Payables	258,600
Prepaid insurance	7,500
Bank overdraft	21,000
Furniture	327,900
Motor vehicles	800,000
Receivables	458,500
Borrowings	650,000

The following information is also extracted from his cash book in respect of the year ended 31 December, 2013:

DR	N	CR	N
Revenue	279,500	Bank overdraft	21,000
Receipt from trade receivables	536,400	Payment to trade payable	284,000
		Drawings	75,000
		Miscellaneous expenses	43,800
		Electricity	26,500
		Salaries	150,000
		Insurance	4,500
		Purchases	87,300
		Cash in hand c/d	123,800
	815,900		815,900

He had the following balances on 31 December, 2013:

	N
Motor vehicles	800,000
Inventory	72,200
Furniture	327,900
Receivables	503,700
Payables	336,600
Borrowings	650,000

Additional information:
(i)   Interest on Borrowings to be accrued for at 5% per annum

(ii)   Bad debts of ₦12,600 are to be written off while 5% allowance is to be made on the net receivables at 31 December, 2013.

(iii)   Depreciation is to be charged on the non-current assets at the rate of 10% per annum.

You are required to prepare
a.   Receivables control account   (2 Marks)
b.   Payables control account   (2 Marks)
c.   The opening capital   (2 Marks)
d.   Statement of Profit or Loss for the year ended 31 December, 2013   (8 Marks)
e.   Statement of Financial Position as at 31 December, 2013   (6 Marks)
                                                                        (Total 20 Marks)

QUESTION 4
a.   The purpose of a trial balance is to prove the accuracy of the General Ledger accounts of a business. However, the õbalancingö of the debit side and the credit side of a trial balance does not guarantee that there is no error in the General Ledger accounts.

      Required:
      i.   State **TWO** uses of a trial balance to an entity.   (2 Marks)

      ii.   State **FOUR** errors that may lead to difference in trial balance total figures.
                                                                        (2 Marks)

      iii.   State **FOUR** errors that may **NOT** affect the õbalancingö of a trial balance.
                                                                        (2 Marks)

b.   The following balances were extracted from the books of Omoba Enterprises as at 31 December, 2013:

	₦
Accumulated for depreciation	85,000
Administrative expenses	775,000
Accounts payables	585,000
Subscription	15,000
Rent and rates	130,000
Account receivables	475,000
Postage and stationery	125,000
Newspapers & periodicals	40,000
Utility	35,000
Allowances for Bad debt	85,000
Property, plant and equipment	925,000
Retained earnings	575,000
Audit fees	85,000
Revenue	2,500,000
Cost of sales	800,000

Other income		82,000
Cash and bank balances		882,000
Capital		375,000

Required:

i. Use the information above to extract a trial balance of Omoba Enterprises at 31 December, 2013.   (12 Marks)

ii. Use the information below to recompute the entity's capital for the period under review:

Drawings	₦250,000
Profit for the period	₦315,000

(2 Marks)
(Total 20 Marks)

QUESTION 5

Success Sports Club had a membership strength of 140 members who paid annual subscription of ₦20,000 each for the year 2014. The receipts and payments account shows the following:

	₦	₦
Opening cashbook balance		120,000
Subscription		2,900,000
Donations		500,000
Sale of games tickets		450,000
		3,970,000
Cost of games	270,000	
Rent	20,000	
Groundman's wages	24,000	
Cost of refreshment	49,000	
Squash racquets	60,000	
Hockey sticks	100,000	
Games trophies	120,000	
Annual awards	1,000,000	(1,643,000)
Closing cash book balance		2,327,000

Additional information:

		31/12/2013	31/12/2014
		₦	₦
(i)	Subscriptions outstanding	300,000	250,000
	Subscriptions in advance	100,000	150,000
	Sports equipment	400,000	-

(ii) Sports equipment are to be depreciated at 50% annually.

You are required to prepare

a.   Subscriptions account   (3 Marks)

b.   Income and Expenditure Account for the year ended 31 December, 2014

                                                                                            (7 Marks)

c.   Statement of Financial Position as at 31 December, 2014   (10 Marks)

                                                                            (Total 20 Marks)

QUESTION 6

Financial data extracted from the books of Kandor Enterprises Limited for the year ended 31 December, 2014 are shown below:

	₦000
Revenue	6,990
Decrease in receivables	177
Cost of sales	5,128
Increase in inventories	1,483
Increase in payables	613
Selling and distribution expenses	300
Administrative expenses	343
Loss on disposal of non-current assets	6
Depreciation charges for the year	62
Ordinary shares issued for cash	400
Purchase of property, plant and equipment	113
Income tax paid	198
Proceeds from disposal of non-current assets	3
Repayment of loan notes	10
Dividend paid	86
Interest paid on loan notes	191
Cash and cash equivalent at the beginning of the year	(409)

Prepare the Statement of Cash Flows for the year ended 31 December, 2014 using direct method showing:

a.   Net cash flow from operating activities   (5 Marks)
b.   Net cash flow from investing activities   (5 Marks)
c.   Net cash flow from financing activities   (5 Marks)
d.   Cash and cash equivalents at the end of the year   (5 Marks)
Show all workings   **(Total 20 Marks)**

SECTION A

PART I - MULTIPLE-CHOICE SOLUTIONS

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

Workings

Q2. Sum-of-the-years digits $= \dfrac{n(n+1)}{2} = \dfrac{5(5+1)}{2} = 15$

∴ Year   s   1, 2, 3, 4, 5
Digits   5, 4, 3, 2, 1   = 15

Second year depreciation $= \dfrac{4}{15} \times$ (₦1,600,000 ó ₦100,000)

=   ₦400,000

Q5.

Motor vehicle Disposal Account

	₦'000		₦'000
Vehicle	**2,000**	**Dep. B/f (500 x 3)**	**1,500**
Profit	**900**	**Sales Proceed**	**1,400**
	2,900		**2,900**

	₦:000
Q16. Total receivables at 13/12/2014	129,250
Less bad debts written-off (31/12/2014)	9,250
	120,000

Allowance at 31/05/2015 @ 5% = 0.05 x ₦120,000
= ₦6,000
Reduction in allowance at 31/12/2014 = ₦9,750 ó ₦6,000
= ₦3,750

	₦
Q18. Adjusted cash book balance	220,000
Less dishonoured lodged cheque	(100,000)
Bank charges	(10,500)
	109,500

	₦
Q19 Adjusted cash book balance	109,500
Less uncredited cheque	(70,000)
	39,500

EXAMINER'S REPORT

The questions test candidates' basic knowledge on principles of accounting with both theory and simple computations.

Candidates' performance was above average.

SECTION B

SOLUTION 1

a.   (i)   Income is the increase in economic benefits in the form of any of the following:

- Inflows
- Increases of assets that lead to increases of equity other than contributions by the shareholders in their capacity as shareholder.
- Decreases of liabilities that lead to increases of equity other than distributions to the shareholders in their capacity as shareholders.

> **Characteristics of Capital Income**
- It is not earned frequently
- It is derived from the sale of non-current assets such as property, plant and equipment and investments that are not held for sales in the ordinary course of business
- The amount involved is very significant
- It is normally presented as other income rather than income from operating activities or investment income

> **Characteristics of Revenue Income**
- It is frequently earned
- It is the major source of income of an entity
- It is matched against revenue expenditure to determine profit or loss
- It flows mainly from sales of goods or rendering of services engaged in by the entity in the ordinary course of business
- It may also result from incomes received from investment such as dividend and interest

(b)

BABARIGA TRADING COMPANY
JOURNAL ENTRIES FOR THE PERIOD ENDED JANUARY 31, 2014

PARTICULARS	DR	CR
	₦ 000	₦ 000
Cash account	50	
Bank account	150	
Trade receivables control account	300	

Inventory account	100	
Capital account (Difference)		600
Being opening balances for the month of January 2014		
Purchases account	70	
Cash account		70
Being cash purchases of 2/1/2014, now recorded		
Purchases account	500	
Trade payables ó Faleye account		500
Being the recording of shop fittings purchased by cheque on 9/1/2014		
Shop fittings account	27	
Bank account		27
Being the recording of shop fittings purchased by cheque on 9/1/2014		
Cash account	129	
Revenue account		129
Being the recording of cash sales of 12/1/2014		
Trade receivables - Okonkwo account	100	
Revenue account		100
Being the sale of goods on credit to Okonkwo on 15/1/2014, now recorded		
Trade payables ó Faleye account	400	
Bank account		400
Being part payment to Faleye by cheque on 16/1/2014 now recorded		
Cash account	350	
Revenue account		350
Being the recording of cash sales of 17/1/2014		
Bank account	150	
Cash account		150
Being the recording of cash paid into bank on 18/1/2014		

Purchases account	140	
Trade payables ó Faruk account		140
Being goods purchased from Faruk on 20/1/2014, now recorded		
Trade receivables ó Shola account	150	
Revenue account		150
Being the sale of goods on credit to Shola on 25/1/2014, now recorded		
Office equipment account	70	
Bank account		70
Being the recording of cheque payment for purchase of desk-top computer on 28/1/2014		

Stationery account	40	
Cash account		40
Being the recording of stationery purchased by cash on 31/1/2014		

EXAMINER'S REPORT

The question tests candidates' knowledge of definition of income and characteristics of capital and revenue incomes. Candidates' ability to raise appropriate journal entries to record transactions in the books of a trading company is also examined.

About 75% of the candidates attempted the question and performance was below average.

Some candidates could not differentiate between journal entries and ledger postings, while some others did not include narration in their journal entries.

Candidates are advised to pay more attention to this vital basic principles of recording accounting transactions of entries.

SOLUTION 2

SALFO ENTERPRISES
EXTENDED TRIAL BALANCE AS AT DECEMBER 31, 2013

DETAILS	CLOSING BALANCE		ADJUSTMENTS		REVISED CLOSING BALANCE	
	DR ₦	CR ₦	DR ₦	CR ₦	DR ₦	CR ₦
Opening inventory	30,600				30,600	
Revenue		245,340				245,340
Purchases	160,200				160,200	
Salaries and wages	52,110		1,500		53,610	
Furniture and fittings	92,500				92,500	
Office expenses	16,200			2,300	13,900	
Trade receivables	50,400				50,400	
Trade payables		22,400				22,400
Cash and bank balances	6,230				6,230	
Drawings	15,500				15,500	
Owners' equity		156,000				156,000
Closing inventory (Trading account)				38,000		38,000
Inventory			38,000		38,000	
Prepaid office expenses			2,300		2,300	
Accrued wages				1,500		1,500
Depreciation - Furniture & Fittings (Wk 1)			9,250		9,250	
Accumulated depreciation - Furniture & fittings				9,250		9,250
	423,740	423,740	51,050	51,050	472,490	472,490

EXAMINER'S REPORT

The question tests candidates' practical knowledge of preparation of extended trial balance from balances extracted from the ledger in columnar form.

About 80% of the candidates attempted the question and performance was average.

Some candidates chose to prepare individual trial balance separately for initial trial balance, adjustments and adjusted trial balance, thus ignoring examiners instruction to prepare "extended trial balance" which should have a six –column format.

Candidates at this level of the examination are expected to be well grounded in the preparation of trial balance, hence, they are advised to study principles of extracting trial balance and practice with relevant past examination questions.

SOLUTION 3

(a)

MR. KEN STEVENSON
Trade Receivables Control Account

	₦		₦
Bal b/f	458,500	Receipt from trade receivables	536,400
Credit revenue (Difference)	581,600	Bad debt	12,600
		Bal c/d	491,100
	1,040,100		1,040,100
Bal b/d	491,100		

(b)   **Trade Payables Control Account**

	₦		₦
Payments to trade payables	284,000	Bal b/f	258,600
Bal c/d	336,600	Purchases (Difference)	362,000
	620,600		620,600
		Bal b/d	336,600

(c)   **COMPUTATION OF OPENING CAPITAL**

	₦	₦
Assets:		
Motor vehicles	800,000	
Furniture	327,900	
Inventory	64,800	
Receivables	458,500	

Prepaid insurance	7,500	
		1,658,700
Less: Liabilities		
Payables	258,600	
Bank overdraft	21,000	
Borrowings	650,000	
		(929,600)
Opening capital		729,100

(d)

MR. KEN STEVENSON
STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED DECEMBER 31, 2013

	₦	₦	₦
Revenue (Wk 1)			861,100
COST OF SALES:			
Opening inventory		64,800	
Purchases (Wk 2)		449,300	
		514,100	
Closing inventory		(72,200)	(441,900)
GROSS PROFIT			419,200
OPERATING EXPENSES:			
Insurance (Wk3)		12,000	
Loan interest (Wk 4)		32,500	
Increase in allowance for bad debt (Wk 5)		24,555	
Miscellaneous		43,800	
Electricity		26,500	
Salaries		150,000	
Bad debt		12,600	
Depreciation:			
Motor vehicles	80,000		
Furniture	32,790	112,790	(414,745)
NET PROFIT			4,455

(e)

MR. KEN STEVENSON
STATEMENT OF FINANCIAL POSITION AS AT DECEMBER 31, 2013

NON-CURRENT ASSETS:	Cost	Depreciation	Carrying Amount

	N	N	N
Motor vehicles	800,000	80,000	720,000
Furniture	327,900	32,790	295,110
	1,127,900	112,790	1,015,110

CURRENT ASSETS:

	N	N	N
Inventory		72,200	
Trade receivables	491,100		
Allowance for bad debt (Wk 5)	(24,555)	466,545	
Cash and bank balances		123,800	
			662,545
TOTAL ASSETS			1,677,655

	N	N
EQUITY AND LIABILITIES:		
Owners' equity		729,100
Net profit		4,455
		733,555
Drawings		(75,000)
		658,555
NON-CURRENT LIABILITIES:		
5% Borrowings		650,000
CURRENT LIABILITIES:		
Trade payables	336,600	
Accrued Borrowings interest (Wk 4)	32,500	369,100
TOTAL EQUITY AND LIABILITIES		**1,677,655**

MR. KEN STEVENSON
WORKING NOTES

Wk 1: Determination of revenue figure as per statement of profit or loss   N

	N
Credit revenue for the year	581,600
Cash revenue for the year	279,500
	861,100

Wk 2: Determination of purchase figure as per statement of profit or loss   N

	N
Credit purchases for the year	362,000
Cash purchases for the year	87,300
	449,300

Wk 3: Determination of insurance expenses for the year
Insurance Account

	N		N
Prepaid b/f	7,500	Statement of profit or loss (Difference)	12,000
Payments during the year	4,500		
	12,000		12,000

Wk 4: Calculation on accrued loan interest   N

Principal amount of Borrowings   650,000
Borrowings interest @ 5%   32,500

Wk 5: Calculation on increase in allowance for bad debt
Trade receivables balance @ year end   491,100
Allowance for bad debt @ 5%   24,555

EXAMINER'S REPORT

The question tests candidates' knowledge of preparation of control accounts and financial statements from the financial records and cash book of a sole trader.
About 90% of the candidates attempted the question and performance was average.

Some candidates could not make correct postings of entries to appropriate control accounts while some others could not differentiate between entries that should go into Statement of Financial Position and Statement of Profit or Loss.

Candidates are advised to pay more attention to the application of double entry principles and the classification of elements of Financial Statements to Capital and Revenue items.

SOLUTION 4

(a)   i)   The uses of trial balance include the following:
- Proving the arithmetical accuracy of all the ledger postings
- Showing ledger balances at a glance
- Revealing arithmetical errors whenever it fails to balance
- Facilitating the preparation of financial statements

ii)   Errors that may lead to disagreement in trial balance total figures include
- Casting error
- Transposition error
- Wrong amount being transferred from ledger to the trial balance
- Omission of ledger balances in the trial balance
- Posting of transaction to the wrong side of either the ledger or the trial balance

iii)   The following errors may not affect the balancing of a trial balance:
- Error of omission
- Error of original entry
- Error of principle
- Error of commission
- Complete reversal of entries
- Compensating error

(b)   (i)

OMOBA ENTERPRISES
TRIAL BALANCE AS AT DECEMBER 31, 2013

	DR	CR
DETAILS	₦	₦
Accumulated depreciation		85,000
Administrative expenses	775,000	
Accounts payables		585,000
Subscription	15,000	
Rent and rates	130,000	
Account receivables	475,000	
Postage and stationery	125,000	
Newspaper and periodicals	40,000	
Utility	35,000	
Allowances for bad debt		85,000
Property, plant and equipment	925,000	
Retained earnings		575,000
Audit fees	85,000	
Revenue		2,500,000
Cost of sales	800,000	
Other income		82,000
Cash and bank balances	882,000	
Capital		375,000
	4,287,000	4,287,000

(ii)

OMOBA ENTERPRISES
COMPUTATION OF CAPITAL AS AT DECEMBER 31, 2013

	₦
Capital as per trial balance	375,000
Add: Profit for the period	315,000
	690,000
Less: Drawings	250,000
Revised capital	440,000

EXAMINER'S REPORT

The question examines candidates' knowledge of the uses and nature of errors that affect the trial balance and their ability to extract a trial balance from given balances.

About 70% of the candidates attempted the question and performance was above average.

The major pitfall of few candidates who failed in the question was their inability to differentiate between items that should be posted to the debit or credit side of the trial balance. A few other candidates used the ledger format for the trial balance.

Candidates are required to master the double entry principles and the formats for journals and ledgers.

SOLUTION 5

(a)
<div align="center">

SUCCESS SPORTS CLUB
SUBSCRIPTIONS ACCOUNT
</div>

	₦		₦
Bal b/d	300,000	Bal b/d	100,000
Income & expenditure	2,800,000	Receipts & payments	2,900,000
Bal c/d	150,000	Bal c/d	250,000
	3,250,000		3,250,000
Bal b/d	250,000	Bal b/d	150,000

b)
<div align="center">

SUCCESS SPORTS CLUB
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED
31 DECEMBER, 2014
</div>

	₦	₦
Subscriptions		2,800,000
Donations		500,000
Sales of games tickets		450,000
		3,750,000
Cost of games	270,000	
Rent	20,000	
Guardsman's wages	24,000	
Refreshment	49,000	
Games prizes	120,000	
Annual awards	1,000,000	
Depreciation	280,000	1,763,000
SURPLUS		1,987,000

(c)
<div align="center">

SUCCESS SPORTS CLUB
STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER, 2014
</div>

	₦	₦
Assets		
Sports equipment	560,000	

Less depreciation @ 50%	280,000	280,000
Subscription owing by members		250,000
Cash		2,327,000
		2,857,000
Less:		
Subscription received in advance		150,000
		2,207,000
Represented by:		
Accumulated fund		720,000
Surplus		1,987,000
		2,707,000

WORKINGS
Statement of Affairs as at 1/1/2014

	₦
Assets	400,000
Equipment	120,000
Subscription owing	300,000
	820,000
Less subscription received in advance	100,000
ACCUMULATED FUND	720,000

EXAMINER'S REPORT

The question examines candidates' ability to prepare financial statements of a Not-for-profit organisation.

About 70% of the candidates attempted the question and performance was average.
The commonest pitfalls of candidates were their inability to make distinction between capital and revenue expenditure and wrong posting of transaction, such as wrong posting of income to the debit side and expenditure to the credit side.

The distinction between capital and revenue item determines items of income and expenditure account and the Statement of Financial Position. Hence, candidates are advised to master these technicalities.

SOLUTION 6
KANDOR ENTERPRISES LIMITED
STATEMENT OF CASH FLOWS FOR THE YEAR ENDED DECEMBER 31, 2014

	₦'000	₦'000
CASH FLOW FROM OPERATING ACTIVITIES:		

Receipts from customers (Wk 1)	7,167	
Payments of suppliers (Wk 2)	(5,998)	
Payment for other operating expenses (Wk 3)	(575)	
Income tax paid	(198)	
Net cash flow provided by operating activities		396

CASH FLOW FROM INVESTING ACTIVITIES:

Payments for purchase of non-current assets	(113)	
Proceeds from disposal on non-current assets	3	
Net cash flow used for investing activities		(110)

CASH FLOW FROM FINANCING ACTIVITIES:

Issue of shares	400	
Repayment of loan notes	(10)	
Dividend paid	(86)	
Interest paid on loan notes	(191)	
Net cash flow provided by financing activities		113
Net increase in cash and cash equivalents		399
Cash and cash equivalents at the beginning of the year		(409)
Cash and cash equivalents at the end of the year		(10)

KANDOR ENTERPRISES LIMITED
WORKING NOTES

Wk 1: Determination of total receipts from customers

		₦'000
Revenue for the year	6,990	
Add: Decrease in trade receivables	177	
		7,167

Wk 2: Determination of payment to suppliers

		₦'000
Cost of sales as per account	5,128	
Add: Increase in inventories	1,483	
		6,611
Total purchases for the year (Wk 2)	(613)	
Increase in trade payables		5,998

Wk 3: Cash paid for other expenses

		₦'000
Selling and distribution expenses		300

Administration expenses	343
Loss on sale of non-current assets	(6)
Depreciation charged for the year	(62)
	<u>575</u>

EXAMINER'S REPORT

The question examines candidates' knowledge of IAS 7 in relation to its application for the preparation of the Statement of Cash Flows, using the direct method.

Only about 35 percent of the candidates attempted the question and about 75% of them scored just average of the marks allotted.

The pitfalls identified among the candidates' were their inability to use the correct classification or format and their inability to calculate cash received from customers and cash paid to suppliers, employees and for other expenses.

Candidates are advised to study and master the requirements of IAS 7 for presentation of the statement of cash flow using the direct method or the indirect method as may be required by the examiners.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

FOUNDATION LEVEL EXAMINATIONS – MAY 2015

MANAGEMENT INFORMATION

Time Allowed: 3 hours

SECTION A: MULTIPLE-CHOICE QUESTIONS   (20 Marks)

ANSWER 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 is **NOT** a costing method?

       A.   Batch costing
       B.   Operation costing
       C.   Job costing
       D.   Standard costing
       E.   Service costing

2.   Which of the following is **NOT** a component of working capital cycle?
       A.   Debtors
       B.   Finished goods
       C.   Work-in-progress
       D.   Raw materials
       E.   Overdraft

       Use the following data to answer questions 3 and 4.

       Break-even point   =   6,000 units
       Fixed cost   =   ₦6,000
       Sales   =   9,000 units at ₦9/unit

3. The variable cost per unit is

    A. ₦8.00
    B. ₦7.50
    C. ₦6.25
    D. ₦5.50
    E. ₦5.00

4. What is the total profit?
    A. ₦1,500
    B. ₦1,875
    C. ₦3,000
    D. ₦3,500
    E. ₦4,150

5. The document required by the purchase department to enable it place an order for replenishment of stock is

    A. Purchase order
    B. Store requisition
    C. Proforma invoice
    D. Waybill
    E. Material usage note

6. The following data relate to work in the Assembly Department of XYZ factory.

Normal working day	8 hours
Basic rate of pay per hour	₦10
Standard time allowed to produce 1 kg	2 minutes

    Premium bonus payable at the basic rate is 60% of the time saved. If one employee produces 360kgs, what is his gross pay for the day?
    A. ₦80
    B. ₦100
    C. ₦104
    D. ₦124
    E. ₦180

7. A budget whose preparation starts from the scratch is known as

    A. Rolling budget
    B. Flexible budget
    C. Zero-based budget
    D. Activity-based budget
    E. Fixed budget

8. The difference between actual and budgeted production volume multiplied by the standard absorption rate per unit is known as

    A. Fixed overhead capacity variance
    B. Fixed overhead efficiency variance
    C. Fixed overhead volume variance
    D. Fixed overhead total variance
    E. Fixed overhead expenditure variance

9. Which of the following factors may **NOT** lead to labour turnover in an organisation?

    A. Unsatisfactory working condition
    B. Mid-month salaries
    C. Low wages
    D. Lack of amenities
    E. Lack of job security

10. Which of the following factors may **NOT** contribute to a good cost accounting information for management use?

    A. Timeliness
    B. Relevance
    C. Accuracy
    D. Efficiency
    E. Clarity

11. Which of the following is **NOT** a feature of a good coding system?

    A. Uniqueness
    B. Brevity
    C. Mnemonic
    D. Indexing
    E. Non-ambiguity

12. In measuring budget performance, an item of cost is said to have favourable variance when

    A. Actual costs of operation is higher than budgeted costs
    B. Budgeted costs of operation is less than actual costs
    C. Actual costs of operation is less than budgeted costs
    D. Budgeted costs of operation is equal to actual costs
    E. Budgeted costs of operation is not available

13. Decision Support System (DSS) provides non-routine decision making for

    A. Senior Management
    B. Middle Management
    C. Executive Programmer
    D. Desk Officer
    E. System Analyst

14. A transaction processing technique with severe time limitation is called

    A. Time Sharing Processing
    B. Distributed Processing
    C. Real Time Processing
    D. Multi tasking
    E. Multi processing

15. Real Time Processing Technique is characterised by

    A. High turn-around time
    B. Low turn-around time
    C. Medium turn-around time
    D. Very high turn-around time
    E. Very little turn-around time

16. Processed data or information from a computer system is called
    A. Input-output
    B. Hardcopy
    C. Softcopy

D.   Output

E.   Input

17.   A major consideration for an upgrade of a microcomputer system is an increase in storage capacity because of the following **EXCEPT**

    A.   Inadequate space to store files

    B.   Inadequate space to install new programs

    C.   Lack of secure place to backup important files

    D.   Inability to download large files from the internet

    E.   Inability to log-on to internet

18.   Identify the odd **ONE** among the following devices

    A.   Joystick

    B.   Touch Screen

    C.   Dot-matrix

    D.   Light pen

    E.   Mouse

19.   A device that combines the capabilities of a scanner, printer, fax and copying machine is called

    A.   Output device

    B.   Facsimile transmission machine

    C.   Multifunctional device

    D.   MICR

    E.   Dumb terminal

20.   Data transmission phenomenon where data is transferred regularly with clock signal is called

    A.   Asynchronous data transfer

    B.   Simplex data transfer

    C.   Duplex data transfer

    D.   Synchronous data transfer

    E.   Regular data transfer

SECTION B: **ANSWER ANY FOUR OUT OF SIX QUESTIONS**   **(80 Marks)**

QUESTION 1

WHYME LIMITED is engaged in the manufacturing and sales of fast moving consumer products. The following data are projections for a period of six months.

	Jan.	Feb.	March	April	May	June
	N₀000	N₀000	N₀000	N₀000	N₀000	N₀000
Sales	9,600	15,800	16,000	17,600	14,800	14,200
Purchases	5,400	12,000	10,000	11,000	11,200	9,800
Salaries (Gross)	1,650	1,760	1,760	1,789	1,842	1,800
Staff Salaries Deductions	78	82	90	89	92	85
Overheads	1,650	1,920	2,100	2,400	1,860	1,720

Other additional information are as follows:

i.   Sales are 25% on cash basis, 55% is collected in the month following sales and the balance in the third month.

ii.   All purchases are on 30 days credit while 20% of overheads will be paid in the same month and the balance in the following month.

iii.   Salaries will be paid net in the same month while the statutory deductions will be remitted on the tenth day of the following month.

iv.   A N10million loan application to the company's bank will be released in March to finance the purchase of a new asset costing N12million in the same month. The repayment of the loan will be spread equally over four months starting from April. (**Ignore interest on the loan**).

v.   An old asset will be disposed off in the month of April for N1.5million.

vi.   Cash balance as at the end of February will be N6.5million out of which N2.5million will be put in a short-term investment with the bank in March at an interest rate of 2% monthly to be credited at the beginning of the month following the investment.

You are required to prepare the cash budget for the period of March to May. (**Ignore taxation**).
                                                  (20 Marks)

QUESTION 2

MAPUTO NIGERIA LIMITED manufactures its product through three processes.

The following data relates to Process 2 and Process 3 for the month of October.
100,000 units at ₦10 each were transferred from Process 1 to Process 2.

	PROCESS COSTS	
	Process 2	**Process 3**
	₦	₦
Direct Materials	100,000	114,000
Direct Labour	135,000	100,000
Variable Expenses	30,000	53,500
Production Overhead	250,000	200,000
Normal Output	90%	80%
Actual Output (Units)	85,000	70,000
Scrap value of loss	₦3 per unit	₦2 per unit

You are required to prepare:

a.   Process 2 and Process 3 accounts   (16 Marks)

b.   Normal loss account   (2 Marks)

c.   Abnormal gain account   (2 Marks)

(Total 20 Marks)

QUESTION 3

Tripple Company Limited manufactures õMOP Headsö for use in its various offices across the country. The Cost Accountant has the following costs per unit produced.

	₦
Direct materials	15
Direct labour	60
Manufacturing overhead	72
	147

A nearby company, Dusters Nigeria Enterprises, has offered to sell 10,000 units of these MOP Heads to Tripple Company Limited for ₦135 per unit. If Tripple Company Limited accepts the offer, some of the facilities presently in use to manufacture MOP Heads could be rented out to a third party at an annual rent of ₦195,000. In addition, ₦18 per unit of the fixed overhead cost applied to the production of MOP Heads would be totally eliminated. The Cost Accountant has also established that 75% of the overhead is fixed.

You are required to:

a.   Advise the Chief Executive Officer of Tripple Company Limited whether the company should accept the offer of Dusters Nigeria Enterprises or not.

(15 Marks)

b.   State **FIVE** other qualitative factors that the Chief Executive Officer of Tripple Company Limited should consider in making a decision in (a) above.

(5 Marks)
(Total 20 Marks)

QUESTION 4

You have been approached by Iyabo, a fresh university graduate of Accounting, who is keenly interested in developing a career in Information Technology, because of many opportunities and prospects available in the field.

You are required to:

a.   Describe briefly each of the following job opportunities to your client.
       i.   System Analyst,   (2 Marks)
       ii.   Webmaster,   (2 Marks)
       iii.   Database Administrator,   (2 Marks)
       iv.   Programmer,   (2 Marks)
       v.   Network Manager, and   (2 Marks)
       vi.   Computer Support Specialist.   (2 Marks)

b.   State **FIVE** Change Management Controls.   (5 Marks)

c.   State **THREE** jobs that a computer support specialist can perform.   (3 Marks)
(Total 20 Marks)

QUESTION 5

Undoubtedly, Information Technology (IT) plays an important role in Management Information System but the technology must be employed with care and discretion. In view of this statement, you are required to:

a.   Define Information Technology.   (2 Marks)

b.   State and explain **SIX** areas where IT can be applied to support Management Information Systems.   (12 Marks)

c.   List **SIX** uses of internet.   (6 Marks)

(Total 20 Marks)

QUESTION 6

As a valuable resource of an organisation, information should be controlled, secured and protected from unauthorised disclosure and destruction.

In the light of the above statement, you are required to explain briefly each of the following:

a.   Information System Controls

b.   Data Encryption

c.   Biometric Identification Devices

d.   Firewall   **(20 Marks)**

MCQ

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

EXAMINER'S REPORT

The questions test a wide range of the sections of the syllabus.

Virtually all the candidates attempted this section of the paper. Performance was good as more than half of the candidates scored 50% or above.

Tutorials

3. $\text{BEP} = \dfrac{\text{Fixed Cost}}{\text{Contribution/Unit}}$

$$\frac{6000}{1} = \frac{6000}{X}$$

$$6000 \text{ x} = 6000$$

$$X = \frac{\text{N}6,000}{6,000}$$

$$= \text{N}1.00$$

		N
Selling price/unit	9	
less Variable Cost/unit		8
Contribution/unit		1

4. Total Profit   N
    Sales value 9000 units @ N9   each   81,000
    Less variable cost 9000 units x N8   72,000
                                                              9,000
    Less fixed cost   6,000
    Total Profit   3,000

7. Standard time allowed = $\frac{360}{60}$ x 2 = 12 hours

        Time allowed   12 hours
        Time taken   8 hours
                                     4 hours

Gross pay
Time worked x Rate/ hour   N
Basic 8 hours x N10   80.00
Bonus 60% of 4 hours x N10   24.00
Gross pay: 104.00

SOLUTION 1

WHYME LIMITED
CASH BUDGET FOR THREE MONTHS ENDING MAY YEAR XXX

	March ₦'000	April ₦'000	May ₦'000
INFLOWS			
Sales Collections	14,610	16,360	16,580
Loan	10,000	-	-
Fixed Asset Disposal	-	1,500	-
Investment Income	-	50	50
(A)	24,610	17,910	16,630
OUT FLOWS			
Purchases	12,000	10,000	11,000
Salaries	1,670	1,700	1,750
Salaries Deductions	82	90	89
Overheads	1,956	2,160	2,292
Fixed Assets	12,000	-	-
Loan Repayment	-	2,500	2,500
Investment	2,500	-	-
(B)	30,208	16,450	17,631
Balance B/F	6,500	902	2,362
Net cashflow (A-B)	(5,598)	1,460	1 001
Balance c/f	902	2,362	1,361

Workings

	January ₦'000	February ₦'000	March ₦'000	April ₦'000	May ₦'000
Sales	9,600	15,800	16,000	17,600	14,800
Collections					
25%			4,000	4,400	3,700
55%			8,690	8,800	9,680
20%			1,920	3,160	3,200
			14,610	16,360	16,580
Overheads	1,650	1,920	2,100	2,400	1,860
20%			420	480	372
80%			1,536	1,680	1920
			1,956	2,160	2,292

EXAMINER'S REPORT

The question tests candidates' ability to prepare a monthly Cash Budget.

Above 75% of the candidates attempted this question. Performance was good as about 60% of the candidates who attempted the question scored 50% of the marks or above.

Common pitfalls exhibited by candidates who did not do well include:

(i)   Use of wrong formats
(ii)   Instructed timing of inflow and outflow was not respected in many instances
(iii)   Juxtaposition of the inflow and outflow by a number of candidates.

It is recommended that candidates should:

(i)   Master the standard format of preparing a Cash Budget
(ii)   Understand and obey instructions
(iii)   Revisit the topic and practise past questions using ICAN Pathfinder and Study Texts.

SOLUTION 2

MAPUTO NIGERIA LIMTED
PROCESS 2 ACCOUNTS

a)i

	Units	Cost/unit ₦	Amount ₦		Units	Cost/unit ₦	Amount ₦
Transfer from Proc. 1	100,000	10.00	1,000,000	Normal loss	10,000	3.00	30,000
Direct Material			100,000	Transfer to pro 3	85,000	16.50	1,402,500
Direct Labour			135,000	Abnormal Loss	5,000	16.50	82,500
Variable expenses			30,000				
Production o/h							
			250,000				
	100,000		1,515,000		100,000		1,515,000

PROCESS 3 ACCOUNTS

a)ii

	Units	Cost/unit ₦	Amount ₦		Units	Cost/unit ₦	Amount ₦
Transfer from Proc. 2	85,000	16.50	1,402,500	Finished goods	70,000	27..00	1,890,000
Direct Material			114,000	Normal loss	17,000	2.00	34,000
Variable expenses			53,500				
Direct Labour			100,000				
Production o/d			200,000				
Abnormal Gain	2,000	27.00	54,000				
	87,000		1,924,000		87,000		1,924,000

(b)   **NORMAL LOSS ACCOUNT**

			₦		₦
Proc. 2 Account	10,000	3.00	30,000	Income Statement	64,000
Proc account 3	17,000	2.00	34,000		
			64,000		64,000

(c)

ABNORMAL LOSS ACCOUNT

Proc. 2 Account	5,000	16.50	82,500	Scrap Value	5,000	3.00	15,000
				Income Statement			67,500
			82,500				82,500

(c)

ABNORMAL GAIN ACCOUNT

	Unit ₦	Cost/unit ₦	Amount ₦		Unit ₦	Cost/unit ₦	Amount ₦
Income Statement			54,000	Process 3 Account	2,000	27	54,000
			54,000				54,000

Workings - Process 2

Normal Loss Computation:-

Normal Output $= \dfrac{90}{100}$ x 100,000 $= 90,000$ units

Normal Loss $= 100,000 – 90,000 = 10,000$ units

Abnormal Loss $=$ Expected – Actual output

$\qquad = 90,000 – 85,000 = \underline{5,000 \text{ units}}$

Cost of output $= \dfrac{\text{Total Cost – Cost of Normal Loss}}{\text{Expected output}}$

$\qquad = \dfrac{₦1,515,000 – ₦30,000}{90,000} = ₦16.50$

Process 3:   Workings

Normal output $= \dfrac{80}{100}$ x 85,000 $= 68,000$ units

Normal loss $= 85,000 – 68,000 = 17,000$ units

Abnormal gain $=$ Actual output – Expected output

$\qquad = 70,000 - 68,000 = 2,000$ units

Cost of output   = <u>Total cost ó Normal loss</u>   = <u>₦1,870,000 -₦34,000</u>   =₦27.00

                         Expected output   68,000

EXAMINER'S REPORT

This question tests candidates' ability to prepare Process Costing Accounts and their peculiarities.

Above 75% of the candidates attempted this question.
Performance was below average. About 40% of the candidates who attempted the question scored 50% or above.

Common pitfalls include:

(i)   Wrong format
(ii)   Candidates showed shallow understanding of the peculiarities of Process. Costing.

It is recommended that candidates should:

(i)   Develop interest in Process Costing
(ii)   Consult different texts on Process Costing including the ICAN Study Texts.

SOLUTION 3

(a)

TRIPPLE COMPANY LIMITED
CALCULATION OF SAVING OR DEFICIT FROM MAKING 10,000 UNITS OF MOP HEADS

	₦ø000	₦ø000
Supplier offer-10,000 units at ₦135/units		1,350
Less Relevant costs		
Material- ₦15 x 10,000 units	150	
Labour - ₦60 x 10,000 units	600	
Variable 25% x ₦72 x 10,000	180	
Opportunity cost of rentage	195	
Fixed cost elimination ₦18 x10,000 units	<u>180</u>	<u>1,305</u>

Savings   45

Decision:

I advise the Management of Tripple Company Limited to manufacture the product (MOP Heads)

(b) Other qualitative factors to be considered by the Management of Triple Company Ltd in taking above decision are:

   i.   Availability of raw materials at affordable prices
   ii.   Quality of the product to be supplied
   iii.   Reliability of the supplier or contractor
   iv.   Rate of inflation in the economy as it affects company¢s
           production costs
   v.   Machine breakdown
   vi.   Prices from other competitors
   vii.   Labour unrest due to demand for wage increase
   viii.   Political instability in the country
   ix.   The ability to utilise available production capacity
   x.   Availability of cash
   xi.   The possible adverse effect of revealing trade secrets

EXAMINER'S REPORT

The question tests candidates understanding of Marginal Costing technique with respect to decision making.

The question was less popular among the candidates as only about 45% of them attempted the question.

Performance was below average. About 40% of the candidates who attempted the question scored 50% or above of the marks.

Recurring and popular shortcomings among the candidates include:
   i)   **Inability to differentiate between qualitative and quantitative factors in decision making.**

   ii)   **Inability to separate costs into their fixed and variable components**

   iii)   **Inability to recognise relevant and irrelevant costs for decision making.**

iv)   Candidates confused the requirement for "State "with that of "describe".

For improved performance in future, it is recommended that Candidates should
   (i)   **Improve on the quality of preparation.**

   (ii)   **Consider improved understanding of the fundamentals, principles and concepts of marginal Costing with respect to decision making.**

   (iii)   **Adopt an acceptable format.**

   (iv)   **Read good quality texts including the ICAN Study Texts.**

SOLUTION 4

(a)   **Description of the Job opportunities**
       System Analyst: A System Analyst would work with other people within an organisation to evaluate their information needs and thereafter design computer software and hardware to meet those needs and finally implement the information system.

       Webmaster: This is one of the newest and highest demanded activities in IT environment. A webmaster would be involved in designing, creating, monitoring and evaluating corporate websites. Webmaster combines technical internet skills with design and layout expertise.

       Database Administrator: This person is responsible for structuring, coordinating, linking and maintaining internal database. He is also involved with selecting and monitoring external databases including internet databases

Programmer: Programmer works closely with a system analyst to either create new software or revise existing programs. You are expected as a programmer to be efficient in the use of programming languages to carry out your duty.

Network Manager: A Network Manager ensures that existing information and communication systems are operating effectively and that new communication systems are implemented as needed. He is also responsible for ensuring computer security and individual privacy.

Computer Support Specialists: These include technical writers, computer trainers, Computer technicians and help desk specialists

(b) Change Management Controls include:

i. All change requests should be documented and follow a standard format that clearly identifies the nature of the change and the reason for the request.

ii. All changes should be approved by appropriate levels of management.

iii. Changes should be thoroughly tested prior to implementation.

iv. All documentation of program instructions, systems description, backup and disaster recovery plans should be updated to reflect authorised change to the system.

v. Emergency changes or deviations from standard operating policies must be documented and subjected to a formal review.

vi. Backup plans for reverting to previous configurations should be developed in case approved changes need to be interrupted or abandoned.

vii. User rights and privileges need to be carefully monitored during the change process to ensure that proper segregation of duties is maintained.

(c) Jobs of a Computer Support Specialist include:

(i) Technical writing which involves writing how information systems and programs work.

(ii) Computer training which involves the teaching of application software and also instructing users on how to use the organisation information systems.

(ii) The installation of hardware and software.

(iii) Provision of telephone support for end-users within the organisation.

EXAMINER'S REPORT

The question tests candidates' ability to:

(i) **Explain the different job opportunities available to a number of IT Professionals.**

(ii) **Identify and state controls for change management.**
(iii) **State the jobs of a computer support specialist.**

The question was very popular among many candidates as about 90% of them attempted it.
Performance was below average as about 45% of those who attempted the question scored 50% or above of the allocated mark.

Common shortcomings include:
(i) **Part (b) was not understood at all.**
(ii) **In part (a), few candidates discussed the activity rather than the person.**
(iii) **Inability to differentiate between Webmaster and Network Manager**

For improved performance in future, it is recommended that candidates should:
(i) **Improve on their examination techniques**
(ii) **Expand their reading to include a wide variety of texts, particularly the ICAN Study Text.**
(iii) **Relate answers to the number of marks allocated to the question.**
(iv) **Place more emphasis on the quality of answers provided rather than volume.**

SOLUTION 5

(a)   Information Technology (IT) refers to computer hardware, software and communication networks. It describes the application of computer systems and telecommunications equipment to store, retrieve, transmit and manipulate data. The term is typically associated with Computer systems and computer networks.

(b)   Areas where IT can be applied to support MIS include:

    i.   As a tool for support
    ii.   For automating
    iii.   For embedding
    iv.   For processing Business Data
    v.   For communicating
    vi.   For Networking

vii.   For Electronic Data Interchange

Explanation of the above areas:

i.   Tool for support: It can be considered as a tool for support in the areas of calculations, word processing, producing spreadsheet, diagrams and tables. It can enhance task performance.

ii.   **For Automating**: It can be employed to do things faster and more fundamentally and to automate many routines, clerical and information intensive organisational tasks and processes e.g payroll, invoice production. etc.

iii.   **For embedding**: This refers to the programming of organisational procedures, rules and controls into the IT. It thus aligns the existing technologies with the embedded business processor to achieve more effective control.

iv.   **For processing Business Data**: This can be defined as the activity that translates description and measurements of activities, events and objects into usable information. The informating capability of IT flows on the actual operations and processes through which work is produced.

v.   **For communicating**: A huge and ever increasing range of possibilities exists. This includes faxes, e-mails, voicemail, mobile telephones, videos, electronic displays, video conferencing, local and national worldwide network for transmitting and receiving all types of information.

vi.   **For Networking**: Networks are communication systems which link together computers, storage devices, word processors, printers, telephone system and other electronic devices. Networks also allow users to share resources such as disks, printers and files.

vii.   **For Electronic Data Interchange**: This is computer- to- computer data interchange and so is a form of electronic mail. It replaces traditional paper based communication via orders, invoices and so on. It is widely used in retailing businesses.

(c)   Uses of Internet Include:
- Information dissemination and browsing
- Email
- Transaction processing
- File transfer
- Newsgroup
- Marketing/ Commerce
- Entertainment/Music
- Recruitment and job search

- Education and Research activities
- Games
- Training
- Advertisement
- Social Media network
- Capital Market price movement

EXAMINER'S REPORT

The question is in three parts testing candidates understanding of the:

(i)   Definition of Information Technology
(ii)   Application of Information Technology to Management Information System.
(iii)   Uses of Internet

The question is popular among the candidates with almost 100% attempt. Performance was very good. About 70% of the candidates scored 50% or above of the allocated mark.

Common pitfall among the candidates with poor performance was incorrect and inadequate definition of IT.

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

i)   Improve on studies and preparation
ii)   Read and understand the requirements of a question before attempting it.
iii)   Show interest in the use of ICAN Study Texts.

SOLUTION 6

6 a.   Information System Controls

Information system controls are measures put in place to safeguard information assets from natural disasters, man-made disasters, and/or illegal and unauthorised access as well as to ensure that information systems are working according to the design objectives.

Examples include:

➢ Provision of security policy,
➢ Provision of fire detection mechanism e.g Halon detector
➢ Insurance cover
➢ Use of user ID, Password, Biometric Measures

Information system controls are both manual and automated and consist of both general controls and application controls.

General controls govern the design, security and use of computer programs and the security of data files in general throughout the organisations information technology infrastructure.

Application controls are specific controls unique to each computerised application such as payroll or order processing.

b. **Data Encryption**

Encryption involves the coding of data into a form that is not understandable to the casual reader. Data can be encrypted (converted into a coded language) using an encryption key in the software.

Encryption is more commonly used to protect data that is being communicated across a network. It provides protection against the risk of hacking. Thus encryption involves converting data into a coded form for transmission with an encryption key in the software, and decoding at the other end with another key. Any one hacking into the data transmission will be unable to make sense of any data that is encrypted.

Example of encryption is sending an individualøs bank details across the internet. Also an individual buying goods or services from a supplierøs website may be required to submit credit-card details

Also the on-line shipping system should provide for the encryption of the senderøs details (using a õpublic keyö in the software for encryption of the message) and the decryption of the message at the sellerøs end (using a õPrivate keyö for the decryption).

c. **Biometric Identification Devices**
Biometrics refers to metrics(quantitative measures e.g numbers) related to human characteristics. Biometrics authentication (or realistic authentication) is used in computer science as a form of identification and access control. It is also used to identify individuals in groups that are under surveillance.

Biometric identifiers are the distinctive, measurable characteristics used to label and describe individuals. Electronic devices known as Biometric Identification Devices are designed to read and/or scan these human features.

Types of biometric devices

➢ **Face scanner:** Biometric face scanners identify a person by taking measurements of the personøs face. For example, the distance between the personøs chin, eye, nose and

mouth. These types of scanners can be very secure assuming they are smart enough to distinguish between the picture of a person and the real person.

➢ **Hand scanner:** Like the finger print, the palm of a human being's hand is also unique. A biometric hand scanner will identify the person by the palm of his hand.

➢ **Finger scanner-** A biometric finger scanner identifies the person by his finger print.

➢ **Retina or iris scanner** – A biometric retina or iris scanner identifies a person by scanning the iris or retina of his eyes. These scanners are more secure biometric authentication schemes when compared to the other devices because there is no known way to duplicate the retina or iris.

➢ **Voice scanner**: A voice analysis scanner will mathematically break down a person's voice to identify them. These scanners can help improve security but some less sophisticated scanners can be bypassed using a tape recording.

d. **Firewall:** Firewall is either a software or a hardware device (between the user's computer and modem). Computer users might have both. The purpose of a firewall is to detect and prevent any attempt to gain unauthorised entry through the internet into a user's computer or intranet system.

A firewall acts as a Gateway and it

➢ will block suspicious messages from the internet, and prevent them from entering the user's computer, and

➢ may provide an on-screen report to the user whenever it has blocked a message, so that the user is aware of the existence of the messages.

In spite of the preventive measures that are taken, there is a very high risk that computers attached to the internet will suffer from unauthorised access. An organisation would be well advised to carry out regular tests on its computers, to search for items that have been introduced without authority and illegally, and to get rid of them.

Firewalls are necessary for computers with internet access because

• they are continually exposed to corrupt messages and unauthorised access for as long as they are connected to the internet (which may be 24 hours a day) and;

• the volume of 'suspicious' messages circulating the internet is immense.

EXAMINER'S REPORT

The question tests candidates' understanding of the security measures for transmitted data and the computer environment.

Candidates showed a great interest in this question. About 70% of the Candidates attempted it.
Performance was average as about half of the candidates who attempted the question scored 50% or above of the allocated mark.

Common pitfalls exhibited by candidates include:

i)   Length of presentation without substance instead of a brief answer with quality points.
ii)   Display of poor examination techniques
iii)   Standard of communication was not good enough.

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

i)   Read wide and varied texts.
ii)   Take time to understand the requirements of the question before answering.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

FOUNDATION LEVEL EXAMINATIONS – MAY 2015

QUANTITATIVE TECHNIQUES IN BUSINESS

Time Allowed: 3 hours

SECTION A: **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 present value of ₦A to be paid in t years in the future (assuming 5% continuous interest rate) is $P(A, t) = Ae^{0.05t}$
   How long will it take ₦500 to appreciate to ₦10,000?

   A. 5.99 years
   B. 26.00 years
   C. 52.00 years
   D. 59.91 years
   E. 599.10 years

2. A firm produced 300 units of a commodity at a total cost of ₦680 and 700 units of the same commodity at a total cost of ₦1,060. If it is known that the cost relation is a straight line, derive the equation of this line.
   A. $y = -0.95x + 395$
   B. $y = 1.05x - 415.79$
   C. $y = 0.95x + 395$
   D. $y = 9.5x + 395$
   E. $y = 1.05x + 419.75$

3. The total cost function for SUNNY Enterprises is $c(x) = x^3 \text{ ó } 13x^2 + 40x$, where x is the number of units produced (in hundreds).
   At what production level does the average production cost equal to zero?
   A. 0, 500, 800
   B. 500, 800
   C. 0, 400, 900
   D. 400
   E. 400, 900

4. A business venture is considered as worthwhile when the

A. Present value of revenue is positive
B. Present value of the cost is positive
C. Net present value is positive
D. Net present value is equal to zero
E. Internal rate of return is positive

5. ABC Plc announced at its AGM in March 2014 that its production function for the year 2013 was $Q = 5L^{0.4} K^{0.6}$, where Q is the output level, L is the labour input and K is the capital input. Therefore the marginal productivity functions for both L and K are respectively given as

A. $2L^{0.4} K^{0.6}, 3L^{0.4} K^{1.6}$
B. $2L^{0.6} K^{0.4}, 3L^{0.4} K^{0.4}$
C. $2L^{1.4} K^{0.4}, 3L^{0.6} K^{1.4}$
D. $2L^{-0.6} K^{0.6}, 3L^{0.4} K^{-0.6}$
E. $2L^{-0.6} K^{0.6}, 3L^{0.4} K^{-0.4}$

6. In its efforts to reposition the fortune of the firm, the Board of Directors of AJE Enterprise Limited targeted a profit function of $= 16 - -q^2$ ó 10.

The firmøs profit maximising output level is obtained as

A. 2/5
B. 8/5
C. 8
D. 10
E. 16

7. If an event can occur **m** times and another event can occur **n** times, then both events can occur together in

A. m + n times
B. m - n times
C. mn times

D. — times

E. — times

8. The following tree diagram shows the scenario with two cashiers (A and B) at a bank where **M** represents mutilated notes and **N** new notes.
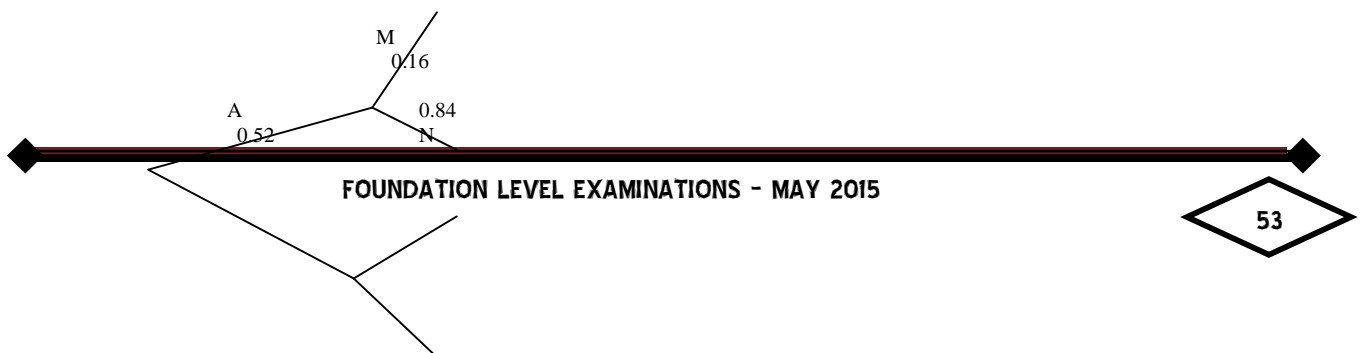
0.48

B   M

0.14

N 0.86

If a customer received mutilated notes, what is the probability that she was paid by cashier A?

A.   0.54
B.   0.55
C.   0.56
D.   0.59
E.   0.61

9. A sales manager of a manufacturing company is to predict the sales of some products for given expenditures on advertising using a simple linear regression analysis. In the fitted regression equation, the sales and advertising expenditure are respectively _____ and _____ variables.

A.   independent, dependent
B.   dependent, independent
C.   fixed, dependent
D.   dependent, fixed
E.   nominal, categorical

10. The following values are computed from a set of bivariate data relating the price and age of 12 selected cars from a car dealer shop as $\sum d_i = 0$, $\sum d^2_i = 416$, where d_i is the difference between ranks of price and age of cars.

The computed Spearman's rank correlation coefficient between the price and age of the car is

A.   -0.4545
B.   -0.3535
C.   0.0000
D.   0.3535
E.   0.4545

11. The following methods are used to measure the trend of a time series EXCEPT
   A. semi-average
   B. moving average
   C. free-hand
   D. deseasonalisation
   E. least squares

12. The amount of time during which a path of activities could be delayed without affecting the overall project duration is called
   A. independent float
   B. total float
   C. free float
   D. excess time float
   E. average time float

13. The acronym EOQ in inventory control system stands for
   A. Economic Order Quantity
   B. Economic Optimal Quantity
   C. Equilibrium Optimal Quantity
   D. Economic Ordering Quality
   E. Equilibrium Ordering Quality

14. Given the respective first, second and third quartiles of a set of observations as: 16.25, 20.45 and 28.75

    The measure of quartile deviation is
    A. 6.23
    B. 6.24
    C. 6.25
    D. 6.26
    E. 6.27

15. A cumulative frequency curve is also known as
    A. Lorenz curve
    B. Cumulative frequency graph
    C. Ogive
    D. Cumulative frequency line
    E. Frequency polygon

16. The algebraic sum of the deviations of a set of numbers from their mean is
    A. The mean of the numbers
    B. The modal number
    C. The median of the numbers
    D. Zero
    E. One

17. The following are properties of standard deviation EXCEPT
    A. The greater the spread of the data, the larger the value of the standard deviation
    B. The value of standard deviation equals zero seems unlikely except when all observations take the same value
    C. Standard deviation takes into account all items in the data set
    D. Standard deviation cannot be used for further statistical analysis
    E. Standard deviation is not influenced by the size and unit of measurement

18. The locus of the mid-points of the tops of the rectangles in the constructed histogram by a straight line is known as

    A.   Ogive
    B.   frequency polygon
    C.   component bar chart
    D.   pictogram
    E.   histogram

19. Deseasonalisation of business data is a process of separating two components of a time series which are

    A.   Trend and cyclical variation
    B.   Irregular and cyclical variation
    C.   Trend and seasonal variation
    D.   Cyclical and seasonal variation
    E.   Seasonal and irregular variations

20. If the weekly wages of 5 employees at XYZ company are ₦10,000, ₦8,500, ₦7,500, ₦6,000 and ₦5,200, the inter-quartile range for the weekly wages is

    A.   ₦3,450
    B.   ₦3,650
    C.   ₦3,850
    D.   ₦4,050
    E.   ₦4,250

SECTION B: **ATTEMPT ANY FOUR OUT OF SIX QUESTIONS** **(80 Marks)**

QUESTION 1

The table below shows average daily sales of Rice Krispies in the month of August 2014 in Flavour Restaurant:

32	8	12	18	26	18	32	28	15	14
22	44	24	18	32	46	52	62	72	78
29	32	10	14	16	24	32	40	24	42
17	20	23	13	16	17	19	36	25	60
25	15	20	42	32	16	20	25	24	50
10	9	11	21	19	12	48	32	32	30

You are required to

a.   Use tally method to prepare a frequency table starting from 1 ó 10, 11 ó 20, etc.
(8 Marks)

b.   Compute:
  (i)   The median   (6 Marks)
  (ii)   The mode   (6 Marks)
(Total 20 Marks)

QUESTION 2

A research was conducted to know the average monthly household expenditure on mobile phones in DETOTAR Estate.

The research shows the average monthly household expenditure to be ₦5,200. Assume that the monthly household expenditure on mobile phones in the Estate is normally distributed with a standard deviation of ₦1,800. Determine the probability of a randomly selected household in DETOTAR Estate if the monthly expenditure on mobile phone is

a.   more than ₦8,700   (5 Marks)

b.   between ₦2,600 and ₦9,000   (6 Marks)

c.   between ₦7,600 and ₦10,200   (6 Marks)

d.   less than ₦8,800   (3 Marks)
                                                                              (Total 20 Marks)

QUESTION 3

a.   A producer wishes to determine the equilibrium price and quantity of his goods in the market. He estimated the market demand and supply functions as follows:

Demand: $p ó q^2 = 64 + — q$

Supply: $2p ó 10q^2 = ó328 ó 45q$

where P is the price in thousands of naira and q is quantity in thousands of units, calculate the equilibrium price and quantity for the producer.

                                                                                       (15 Marks)

b.   Mr. Taiwo invested a certain amount of money P, at an annual interest rate r, for a period of 3 years. The future value of this investment is given by

$$S = P (1 + —)^3$$

Express r in terms of S and P   (5 Marks)
                                                                              (Total 20 Marks)

QUESTION 4

The management of a bank observed that the disruption of the bank ATM services was due to age of the machines. Data on the ATM failure are as contained in the table below:

Year after replacement	1	2	3
Cumulative % of failures	30	75	100

It was further observed that 1,000 units of these machines are in use nationwide and they can be replaced collectively for ₦5million per machine. If replaced individually they cost ₦30million per machine.

a.   You are required to calculate the
   i.   average machine life   (2 Marks)
   ii.   average number of replacements per year   (2 Marks)
   iii. cost of individual replacement per year   (2 Marks)
   iv.   cost of mass replacement at the end of the year   (12 Marks)

b.   determine the best replacement strategy   (2 Marks)
                                                                              (Total 20 Marks)

QUESTION 5

a. The probability that business A succeeds is 0.65 while the probability that business B succeeds is 0.75. If the successes of the two events are independent, obtain the probability that

i. either business A or business B or both businesses succeed   (4 Marks)

ii. only one of the businesses succeeds   (3 Marks)

iii. none of the two businesses succeed   (3 Marks)

b. The following data give the distribution by age of licensed automobile drivers in a city in year 2011.

Age	Number of Drivers (in thousands)
14 ó 19	5
20 ó 25	48
26 ó 31	124
32 ó 37	205
38 ó 43	86
44 ó 49	72
50 ó 55	53
56 ó 61	13

Determine the lower and upper quartiles of the age of the drivers.   (10 Marks)

(Total 20 Marks)

QUESTION 6

A manufacturer determines that the firmøs Marginal Cost (MC) and Marginal Revenue (MR) functions are

$MC = Cø(x) = 100 ó 0.1x$

$MR = Rø(x) = 100 + 0.1x$

You are required to find the

a. Change in revenue that results when the sales level increases from 20 to 30 units.

(5 Marks)

b. Revenue resulting from the sale of 30 units   (5 Marks)

c. Cost of producing 30 units if the fixed cost (at x = 0 units) is ₦400. (5 Marks)

d. Total profit when 30 units of the product are sold. (5 Marks)

(Total 20 Marks)

Formulae

PROBABILITY

$A \cup B = A$ or B $A \cap B = A$ and B (overlap).

$P(B\,|A) =$ probability of B, given A

Rules of Addition

If A and B are mutually exclusive: $P(A \cup B) = P(A) + P(B)$

If A and B are **not** mutually exclusive: $P(A \cup B) = P(A) + P(B)$ ó $P(A \cap B)$

Rules for Multiplication

If A and B are independent: $P(A \cap B) = P(A) * P(B)$

If A and B are **not** independent: $P(A \cap B) = P(A) * P(B\,|A)$

$E(\ ) = \sum$ (probability * payoff)

Quadratic Equations

If $\ +\ + c = 0$ is the general quadratic equation, the two solutions (roots) are given by:

$$ = \frac{-\ \pm \sqrt{\ - 4}}{2}$$

DESCRIPTIVE STATISTICS

Arithmetic Mean

$$ ^- = \frac{\sum}{}\qquad ^- = \frac{\sum}{\sum}\quad \text{(frequency distribution)}$$

Standard Deviation

$$ SD = \frac{\overline{\sum(\ ^-\ )}}{}\qquad SD = \overline{\frac{\sum}{\sum}} - ^-\quad \text{(frequency distribution)}$$

INDEX NUMBERS

Price relative $= 100 *\ /\qquad$ Quantity relative $= 100 *\ /$

Price:

$$\frac{\sum\ *\ \overline{\quad}}{\sum}\ \text{x}\ 100$$

Quantity:

$$\frac{\sum\ *\ \overline{\quad}}{\sum}\ \text{x}\ 100$$

TIME SERIES:

Additive Model   Series $=$ Trend $+$ Seasonal $+$ Random

Multiplicative Model   Series $=$ Trend $*$ Seasonal $*$ Random

LINEAR REGRESSION AND CORRELATION

The linear regression equation of Y on X is given by:

$$Y = a + bX \quad \text{or} \quad - \ = \ -$$

Where

$$= \ \frac{(\ \ )}{(\ )} \ = \ \frac{\Sigma \quad \Sigma \quad \Sigma}{\Sigma X \quad \Sigma X^2}$$

and

$$= \ -$$

or solve

$$\Sigma \ = na + \ \Sigma$$
$$\Sigma \ = a\Sigma \ + \ \Sigma$$

Coefficient of Correlation

$$= \ \frac{(\ \ )}{. \ (\ )} \ = \ \frac{\Sigma \quad \Sigma \quad \Sigma}{\Sigma X \quad \Sigma X^2 \quad \Sigma \quad \Sigma Y^2}$$

$$R \text{ (rank)} \ = \ 1 - \frac{\Sigma}{}$$

FINANCIAL MATHEMATICS

Compound Interest (Values and Sums)

Future Value S, of a sum of X, invested for n periods, compounded at r% interest

$$S = \ 1 + \ ^n$$

Annuity

Present value of an annuity of ₦1 per annum receivable or payable for n years, commencing in one year, discounted at r% per annum

$$PV = - \ 1 - \frac{}{\ _n}$$

Perpetuity

Present value of ₦1 per annum, payable or receivable in perpetuity, commencing in one year, discounted at r% per annum.

$$PV = -$$

Annuity Table

Present value of an annuity of 1 i.e.

$$\frac{1 - (1 + r)^{-n}}{r}$$

Where   r = discount rate

n = number of periods

Periods

(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2.487	3
4	3·902	3·808	3.717	3·630	3.546	3.465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3.890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4.486	4·355	6
7	6·728	6.472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7.435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6.418	6·145	10
11	10·368	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6.495	11
12	11·255	10·575	9·954	9·385	8·863	8·384	7·943	7·536	7'161	6·814	12
13	12·134	11·348	10·635	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·004	12·106	11·296	10·563	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·865	12·849	11·938	11·118	10·380	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2.444	2.402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2.690	2·639	2.589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3.498	3·410	3·326	6
7	4·712	4·564	4.423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4.799	4·639	4.487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4.451	4·303	4·163	4·031	9
10	5·889	5·650	5.426	5·216	5·019	4·833	4·659	4.494	4·339	4·192	10
11	6·207	5·938	5·687	5.453	5·234	5·029	4·836	4·656	4.486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4.439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5.468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6.462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard Normal Distribution Table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
O.4	0.1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0.4015
1·3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1·5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1·6	0.4452	0.4463	0.4474	0.4484	0·4495	0.4505	0.4515	0.4525	0.4535	0.4545
1·7	0.4554	0.4564	0.4573	0·4582	0·4591	0.4599	0·4608	0·4616	0.4625	0·4633
1·8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0·4706
1·9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2·0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0·4850	0.4854	0.4857
2·2	0.4861	0.4864	0.4868	0·4871	0.4875	0.4878	0.4881	0·4884	0.4887	0.4890
2·3	0.4893	0·4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2·4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0·4931	0.4932	0.4934	0.4936
2·5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2·6	0.4953	0.4955	0·4956	0.4957	0.4959	0.4960	0.4961	0·4962	0.4963	0·4964
2·7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0·4974
2·8	0.4974	0.4975	0.4976	0.4977	0.4977	0·4978	0.4979	0.4979	0.4980	0.4981
2·9	0·4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0·4986
3·0	0·4987	0.4987	0·4987	0·4988	0·4988	0.4989	0.4989	0·4989	0.4990	0.4990

MCQ

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

<u>Workings</u>

1. 10000 $500e^{0.05t}$

$$\underline{\hspace{2cm}} = e^{0.05t}$$

$$20 = e^{0.05t}$$

$$\log e = 0.05t$$

$$\therefore \quad t = \frac{\underline{\hspace{0.5cm}}}{.} = 59.91$$

2. y   f(x),   y = cost, x = no of units.

(y, x)   (300, 680) and (700,1060)

Slope = $\dfrac{\underline{\hspace{2cm}}}{}$ = $\dfrac{\underline{\hspace{0.5cm}}}{}$ = $\dfrac{\underline{\hspace{0.5cm}}}{}$

y   = $\underline{\hspace{0.5cm}}$x + c   i.e.   y = 0.95x + c

680   = $\underline{\hspace{0.5cm}}$(300) + c ;   c = 395

$\therefore$ y =   0.95x + 395

3. Average cost   = $\dfrac{\underline{\hspace{2cm}}}{}$

$$= \frac{\underline{\hspace{1cm}}^{3} \quad ^{2}}{\underline{\hspace{3cm}}}$$

$$= \quad ^{2} - 13 + 40$$

Set this to zero

i.e. ^{2} − 13 + 40 = 0

(x ó 5) (x ó 8) = 0

x = 5 or 8 i.e. 500 0r 800 units

5. $\dfrac{\partial Q}{\partial L} = 2L^{-0.6}K^{0.6}, \qquad \dfrac{\partial Q}{\partial K} = 3L^{0.4}K^{-0.4}$

i.e. $2L^{-0.6}K^{0.6}, \ 3L^{0.4}K^{-0.4}$

6. $$\frac{d\pi}{dQ} = 16 - \frac{8}{5}q = 0$$

i.e.   80 ó 8q = 0

           q = 10

8.
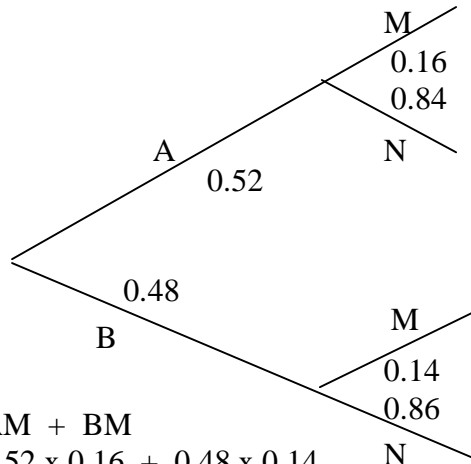
           AM + BM

=   0.52 x 0.16 + 0.48 x 0.14

=   0.832 + 0.0672

=   0.1504

$$\therefore \quad P\left(A/_M\right) = \frac{P(A \cap M)}{P(M)}$$

$$= \quad \frac{0.832}{0.1504} = 0.55$$

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

             = $$1 - \frac{6(416)}{12(12^2 - 1)}$$

             = $$\frac{1 - 2496}{1716}$$

             =   ó 0.4545

14. $$Q_1 = 16.25$$

$$Q_2 = 20.45$$

$$Q_3 = 28.75$$

$\therefore$ Quartile deviation $= \dfrac{Q_3 - Q_1}{2}$

$= \dfrac{28.75 - 16.25}{2}$

$= 6.25$

20. Arrange in ascending order ₦5,200; ₦6,000; ₦7,500; ₦8,500; ₦10,000

q_1 position: $\dfrac{1}{4}(n+1)^{th}\, term$

i.e. 1.5^{th} term $= \dfrac{5,200 + 6,000}{2}$

$q_1 = $ ₦5,600

q_3 position $= \dfrac{3}{4}(n+1)^{th}\, term$

i.e. 4.5^{th} term $= \dfrac{8,500 + 10,000}{2}$

$q_3 = $ ₦9,250

$\therefore$ Inter-quartile range is $q_3 - q_1$

$= $ ₦(9,250 ó 5,600)

$= $ ₦3,650

EXAMINER'S REPORT

The questions test candidates' understanding of concepts, principles and theories in quantitative techniques and their application in business.

All candidates attempted the questions and performance was average.

Candidates are advised to cover the syllabus adequately for better performance in future ICAN examinations.

SECTION B

SOLUTION 1

a.   Preparation of frequency table using tally method with range (1 ó 10, 11 ó 20, etc)

CLASS INTERVAL	TALLY	FREQUENCY
1 ó 10	IIII	4
11 ó 20	JHI JHI IJH IIJH-I	21
21 ó 30	IHH IHH IIII	14
31 ó 40	IHH IHH	10
41 ó 50	JHH I	6
51 ó 60	II	2
61 ó 70	I	1
71 ó 80	II	2

b (i)

CLASS INTERVAL	CLASS BOUNDARY	f	Cf
1 ó 10	0.5 ó 10.5	4	4
11 ó 20	10.5 ó 20.5	21	25
21 ó 30	20.5 ó 30.5	14	39
31 ó 40	30.5 ó 40.5	10	49
41 ó 50	40.5 ó 50.5	6	55
51 ó 60	50.5 ó 60.5	2	57
61 ó 70	60.5 ó 70.5	1	58
71 ó 80	70.5 ó 80.5	2	60
		$\sum = 60$	

The median is given by

$-$ TH member

$=$ $-$ TH member $=$ 30TH member

The median $=$ $+$ $\dfrac{-}{\rule{2cm}{0.4pt}}$

where,

=   Lower class boundary of the median class, = 20.5

c bm = Cumulative frequency before the median class = 25

      = Frequency of the median class = 14

c   = The class size   = 10

$-$ = 30

= 20.5 + $\dfrac{-}{\quad}$ 10

Median   =   24.07

b (ii)   The mode is given by

$+ \dfrac{\Delta}{\Delta \quad \Delta}$

where,

      =   Lower class boundary of the modal class,

$\Delta 1$ =The difference between the frequency of the modal class and the
        frequency of the next lower class
      = fm -   =   21 ó 4   =   17

$\Delta 2$ =The difference between the frequency of the modal class and the
        frequency of the next higher class
      = fm -   =   21 ó 1   =   7

c   = The class size
      =   10

Mode =   10.5 + $\dfrac{\quad}{\quad}$ 10   =   10.5 + (0.708) 10

        =   10.5 + 7.08

        Mode   =   17.58

EXAMINER'S REPORT

The question tests candidates' skills in

    (i)   the use of tally method in the preparation of frequency table; and

    (ii)   the computation of the median and mode measures of scatter in a given data distribution.

About 80% of the candidates attempted the question and performance was fair.

The major pitfall was candidates' inability to come to terms with the appropriate formulae for computing the medium and mode of data distribution involving class intervals.

Candidates are advised to get used to these formulae and their application as demonstrated in the above suggested solution to the question.

SOLUTION 2

a.

$$\underline{\hspace{4cm}} = 1.94$$

Required probability (shaded area) is 0.5
ó 0.4738 = 0.026

b.

$$\underline{\hspace{3cm}} = ó\ 1.4445$$
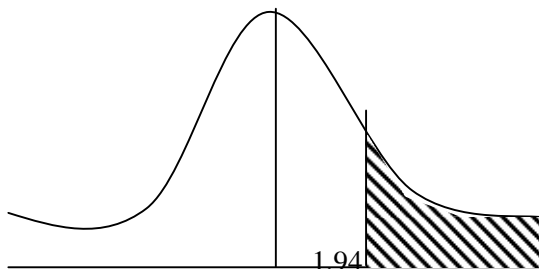
$$\underline{\hspace{3cm}} = 2.111$$

Required probability (shaded area) is
0.4251 + 0.4826 = 0.908

c.

$$\underline{\hspace{4cm}} = 1.333$$
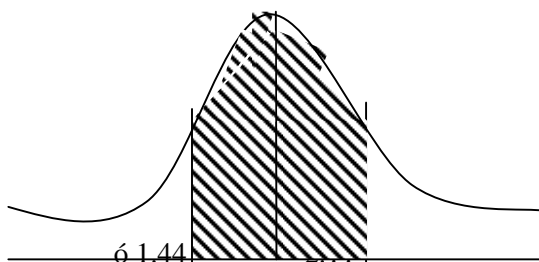
$$\underline{\hspace{4cm}} = 2.778$$

Required probability (shaded area) is
0.4973 ó 0.4082 = 0.089

d.
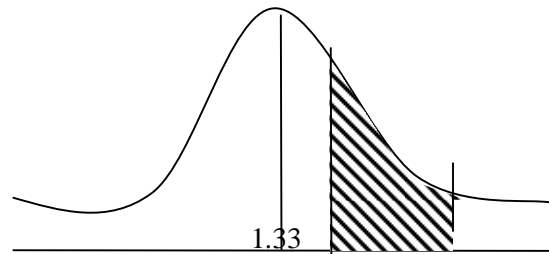
$$\underline{\hspace{3cm}} = 2.0$$

Required probability (shaded area) is
0.4772 + 0.5000 = 0.9772
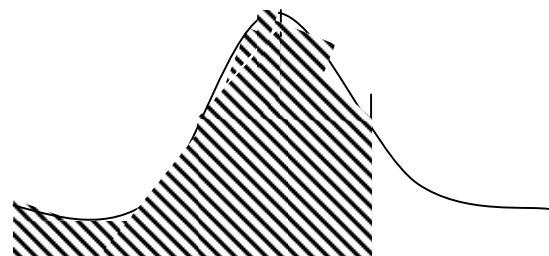
EXAMINER'S REPORT

The question tests candidates' ability to apply probability analysis to normally distributed data.

About 30% of the candidates' attempted the question and their performance was poor.

Candidates' commonest pitfall in answering the question included wrong application of relevant formulae, inability to properly identify the area of the normal curve applicable to the question and premature approximation which affected further addition and or table reading.

Candidates' are advised to pay attention to these noted pitfalls so as to guide against them in future examinations.

SOLUTION 3

Demand: P   =   + $-$ q + 64

Supply: P   =   5   ó $-$ q ó 164

At equilibrium, Demand = Supply

Thus

$$+ \;—\; q \;+\; 64 \;=\; 5 \quad ó \;—\; q \; ó \; 164$$

∴   4   ó 29q ó 228   =   0

   4   - 48q + 19q - 228   =   0

   4q (q - 12) + 19 (q - 12) = 0

   (4q + 19) (q - 12) =   0

∴   (4q + 19)   =   0   or   (q - 12) =   0

⇒   4q =   ó 19   or   q = 12

i.e.   q = ——   or   q = 12

Since   q > 0 (non-negative);   hence,   q = 12

ALITER

     4   ó 29q ó 228   =   0

$$q \;=\; \frac{\pm \sqrt{\quad}}{\quad}$$

     a   = 4,   b = 29,   c = - 228

∴ $q \;=\; \dfrac{\pm \sqrt{\quad}}{\quad}$

    $= \;\; \dfrac{\pm \sqrt{\quad}}{\quad}$

    $= \;\; \dfrac{\quad}{\quad}$ or $\dfrac{\quad}{\quad}$

    =   12   or   - 4.75

i.e.   q =   12   since   q cannot be negative.

Substituting   q =   12   in either function,
i.e.

     P   =   5(12) ó 45 ——   - 164

         =   720 - 270 - 164

         =   286

Therefore, the equilibrium price is ₦286,000 while the equilibrium quantity is 12,000 units.

3b.

$$S \quad = \quad P \; 1 \quad — \quad ^3$$

i.e. $\qquad – \quad = \quad 1 \quad — \quad ^3$

$$– \; ^{1\!/_3} \quad = \quad 1 \quad —$$

$$– \; ^{1\!/_3} \; - \; 1 \quad = \quad —$$

$$— \quad = \quad – \; ^{1\!/_3} \; - \; 1$$

$$r \quad = 100 \quad – \; ^{1\!/_3} \; – \; 1$$

EXAMINER'S REPORT

The question tests candidates' ability to compute the equilibrium price and quantity (demanded, supplied) of a product in a competitive market setting from specified demand and supply functions.

About 70% of the candidates attempted the question and performance was good.

SOLUTION 4

Calculation of percentage of failure

Year (x)	Percentage	proportion
1	30	0.30
2	(75 ó 30) = 45	0.45
3	(100 ó 75) = 25	0.25
	100	1.00

a (i)   Average machine life

Year (x)	Percentage failure	Probabilities (p)	P(X)
1	30	0.30	0.30
2	45	0.45	0.90
3	25	0.25	0.75
	100	1.00	1.95

Average machine life $= \dfrac{\Sigma \; (\;)}{\Sigma}$

where p = Probability   and   x = Month

Average machine life $= \dfrac{\Sigma \; (\;)}{\Sigma} = \dfrac{.}{}$

$\quad\quad\quad\quad\quad\quad\quad\quad = \; 1.95 \; years$

a (ii)   Average number of replacement per year

Average number of replacement per year $= \overline{\quad\quad\quad\quad\quad\quad\quad\quad}$

$\quad\quad\quad\quad\quad\quad\quad = \dfrac{\overline{\quad\quad\quad}}{.} \quad = \quad 513 \; units$

a (iii)   Cost of individual replacement at the end of the year

Cost of individual replacement at $=$ (Average number of replacement per year
the end of the year   x   Cost of individual replacement)

    i.e.   513 units x   30 million   =   ₦15,390 million

a (iv)   Cost of mass replacement at the end of the year

Let   represent the number of machines replaced at the end of the year

The different values of N can then are calculated as:

    $=$ Number of machines at the beginning of the year $=$ 1,000 units

    $=$ Number of machines at the end of the year 1

        $=$. $= (1000 \; x \; 0.30) = $ 300 units

=   Number of machines at the end of the year 2

=   .   +   .   = (1000 x 0.45) + (1000 x 0.30)

=   540 units

=   Number of machines at the end of the year 3

=   .   +   .   +   .

=   (1000 x 0.25) + (300 x 0.45) + (540 x 0.30)

=   547 units

The total cost of group replacement is therefore:

End of Year	Total Cost of Group Replacement (₦) in million	Average Cost per Year (₦) in million
1	(300 x 30) + (1000 x 5) = 14,000	14,000
2	{(300 + 540) x 30} + (1000 x 5) = 30,200	15,100
3	(300 + 540 + 547) x 30 + (1000 x 5) = 46,610	15,537

Since the lowest average cost of ₦14,000 million is obtained in the first year of mass replacement, it is optimal to have a mass replacement at the end of year one.

The best replacement strategy is the mass replacement since the cost of mass replacement (that is ₦14,000 million relatively lower than the cost of individual replacement (that is ₦15,390 million)

EXAMINER'S REPORT

The question tests candidates' understanding of concept and simple applications of the concept in replacement theory/analysis.

About 40% of the candidates attempted the question and performance was poor.

Candidates demonstrated shallow knowledge/understanding of the question. They were unable to compute the appropriate probabilities and the associated cumulative probabilities that are required in the solution to the problem.

Candidates are advised to be more conversant with the probability measures, their computations and applications as demonstrated in the suggested solution above.

SOLUTION 5

a.   (i) $P(A) = 0.65$, $P(A^I) = 0.35$

$P(B) = 0.75$, $P(B^I) = 0.25$

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$

$= 0.65 + 0.75 - (0.65 \times 0.75)$

$= 0.9125$

(ii) $P(A \cap B^I) + P(A^I \cap B) = P(A)P(B^I) + P(A^I)P(B)$

$= (0.65 \times 0.25) + (0.35 \times 0.75)$

$= 0.425$

(iii) $P(A^I \cap B^I) = P(A^I)P(B^I)$

$= (0.35 \times 0.25)$

$= 0.0875$

b.

Age	f	cf
13.5 ó 19.5	5	5
19.5 ó 25.5	48	5 + 48 = 53
25.5 ó 31.5	124	53 + 124 = 177
31.5 ó 37.5	205	177 + 205 = 382
37.5 ó 43.5	86	382 + 86 = 468
43.5 ó 49.5	72	468 + 72 = 540
49.5 ó 55.5	53	540 + 53 = 593
55.5 ó 61.5	13	593 + 13 = 606
	606	

Lower quartile is

i.e. $= + \dfrac{\frac{N}{4}^1}{^1} \quad ^1$

here, $-$ = 151.5

=   124,   = 53,   = 25.5

=   31.5 ó 25.5   = 6

∴   =   25.5 + $\dfrac{\cdot}{\quad}$ 6

=   25.5 +   4.77

=   30.27

Upper quartile is

i.e.   =   + $\dfrac{\dfrac{3N}{4} \quad 3}{3}$ 3

here, $-$ =   3(151.5)   =   454.5

=   382,   =   86,   = 37.5

=   43.5 ó 37.5   = 6

∴   =   37.5 + $\dfrac{\cdot}{\quad}$ 6

=   37.5 +   5.06

=   42.56

EXAMINER'S REPORT

The question tests candidates' understanding of probability and measures of partition of data distribution.

About 95% of the candidates attempted the question and performance was fair.

Some candidates' were unable to apply the appropriate probability formulae (additive and multiplicative rules) as well as to calculate the lower and upper quartiles and the relevant class intervals. Some candidates also used graphical analysis which was not required.

Candidates are advised to note these pitfalls and guide against them in future examinations.

SOLUTION 6

a.   As the sales level increase from x = 20 to x = 30 units, the revenue changes by the amount

$$= \quad 100 + 0.1$$

$$= \quad \left[100x + 0.05x^2\right]_{20}^{30}$$

$$= \quad 3{,}045 \; \text{ó} \; 2{,}020$$

$$= \quad 1{,}025$$

Thus, the revenue increases by ₦1,025

b. If we assume that the revenue from the sales of $x = 0$ units, then the revenue resulting from the sale of $x = 30$ units can be viewed as the change in revenue that results when sales increase from $x = 0$ to $x = 30$.

This change is given by

$$\int_0^{30} MR\,dx \quad = \quad \int_0^{30}(100 + 0.1x)\,dx$$

$$= \quad \left[100x + 0.05x^2\right]_0^{30}$$

$$= \quad 3{,}045 \; \text{ó} \; 0$$

$$= \quad 3{,}045$$

Therefore, the revenue received from selling 30 units is ₦3,045

c. As the production level increases from $x = 0$ unit to $x = 30$ units, the cost changes by an amount given as follows:

$$\int_0^{30} MC\,dx \quad = \quad \int_0^{30}(100 - 0.1)\,dx$$

$$= \quad \left[100x + 0.05x^2\right]_0^{30}$$

$$= \quad 100(30) - 0.05(30)^2$$

$$= \quad 3{,}000 \; \text{ó} \; 45$$

$$= \quad ₦2{,}955$$

Thus, the total cost for manufacturing 30 units of the product will be the fixed cost plus the added cost as the production increase from $x = 0$ units to $x = 30$ units. Thus, the cost will be

$$₦(400 + 2{,}955) \quad = \quad ₦3{,}355$$

d. The total profit when 30 units are sold is

$$\pi \quad = \quad \text{Total revenue ó Total Cost}$$

where π = Profit

Thus, π = ₦ (3,045 ó 3,355)

         =   ó ₦310

Therefore, at maximum output level (x = 30)

One firm is not covering cost.

EXAMINER'S REPORT

The question tests candidates' knowledge of cost, revenue and profit functions in business analysis. It also tests the ability of candidates to use integral calculus to compute Total Cost (TC) and Total Revenue (TR) from Marginal Cost (MC) and Marginal Revenue (MR) functions, respectively.

About 30% of the candidates attempted the question and their performance was poor.

The major pitfall was candidates' inability to link the solution of the question to the use of integral calculus for deriving TC and TR from MC and MR functions respectively.

Candidates are advised to read widely and understand the requirements of the question as done in the suggested solution above.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

FOUNDATION LEVEL EXAMINATIONS - MAY 2015
BUSINESS AND FINANCE
Time Allowed: 3 hours

SECTION A: **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 management function which ensures that things happen in accordance with established policies and practices is called

   A.   Organising
   B.   Coordinating
   C.   Controlling
   D.   Planning
   E.   Motivating

2.   The channelling of funds from one economic unit to the other is known as

   A.   Financial market
   B.   Financial intervention
   C.   Financial restructuring
   D.   Financial intermediation
   E.   Money market intervention

3.   The purpose of analysing an organisation's strategic position is

   A.   To understand the operational and corporate requirements of an organisation
   B.   To understand the strategic position of the organisation in terms of its strategic capability
   C.   To understand and allocate available resources
   D.   To understand the strategic position of the organisation in terms of its external environment, capabilities and expectations
   E.   To evaluate the resources required to translate strategy into action

4.   Which of the following is a cashflow calculation item?

   A.   Depreciation of fixed assets
   B.   Loss on disposal of fixed assets
   C.   Profit on disposal of investments
   D.   Surplus on revaluation of fixed assets
   E.   Proceeds from disposal of fixed assets

5.   Which of the following ethical theories expresses the view that human conduct
     should be based exclusively on self interest?

   A.   Normative ethics
   B.   Applied ethics
   C.   Ethical egoism
   D.   Ethics of duty
   E.   Virtue ethics

6.   Which of the following theories has assumptions that are closely related to
     Maslowøs higher-level needs?

   A.   Theory X
   B.   Theory Y
   C.   Theory Z
   D.   Theory XY
   E.   Theory XYZ

7.   Which of the following is a key instrument in changing organisational culture?

   A.   Training
   B.   Team membership
   C.   MBO Strategy
   D.   Problem analysis
   E.   Growth

8. Which type of communication is Grapevine?

   A. Formal
   B. Informal
   C. External
   D. Formal and Informal
   E. Internal and External

9. An organisation's mission can be defined as

   A. The overriding purpose in line with the values or expectations of stakeholders
   B. The organisation's business plan
   C. The overriding purpose in line with the values or expectations of its owners
   D. The desired future state of the organisation
   E. The current state of the organisation

10. The following are required to incorporate a limited liability company **EXCEPT**

   A. Memorandum of Association
   B. Articles of Association
   C. Statement of authorised share capital
   D. Location of the registered office
   E. Source of finance

11. Which of the following is regarded as an alternative to shareholders' wealth maximisation?

   A. Long term stability
   B. Long term growth
   C. Corporate wealth maximisation
   D. Share price maximisation
   E. Cost minimisation

12. The most appropriate terminology that describes those who have interest in an organisation is

   A. Customers
   B. Shareholders
   C. Stakeholders
   D. Management
   E. Owners

13. **ONE** of the primary objectives of strategic planning is to achieve

   A. Business strategy
   B. A sustainable competitive advantage
   C. Purpose of production
   D. An aspiration
   E. Business idea

14. Meeting the social and psychological needs of employees in the fulfilment of organisational goals can be referred to as

   A. Motivating
   B. Controlling
   C. Organising
   D. Planning
   E. Coordinating

15. Which of the following sources of finance available to businesses is the most frequently used for short-term finance?

   A. Bank borrowing
   B. Rights issues
   C. New share issues
   D. Retained earnings
   E. Trade credit

16. Aggregating prospective buyers into groups is called
    A. Market categorisation
    B. Market mix
    C. Market segmentation
    D. Market modelling
    E. BCG matrix analysis

17. The decision rule for the acceptance of investment using Net Present Value (NPV) method is, accept if the
    A. NPV $\times$ 0
    B. NPV $>$ 0
    C. NPV $<$ 0
    D. NPV Ö0
    E. NPV $=$ 0

18. Which of these is **NOT** a financial instrument traded in the money market?
    A. Treasury Bills
    B. Call money
    C. Development stock
    D. Stabilization securities
    E. Bill Finance scheme

19. A leadership style in which the leader has the authority to withhold or give reward and punishment is referred to as í í í í í í . style
    A. Democratic leadership
    B. Participative leadership
    C. Contingency leadership
    D. Autocratic leadership
    E. Laissez faire leadership

20. The process of transmission of information from one person, group or organisation to another is called
    A. Decoding
    B. Communication
    C. Globalization
    D. Presentation
    E. Translation

SECTION B: **ATTEMPT ANY FOUR OUT OF SIX QUESTIONS**
   (80 Marks)

QUESTION 1

a. State **FIVE** features of each of the following:

   i.   Memorandum of Association   (5 Marks)

   ii.   Articles of Association   (5 Marks)

   iii.   Public Sector Entity   (5 Marks)

b. Identify **FIVE** advantages of a partnership business.   (5 Marks)

(Total 20 Marks)

QUESTION 2

Businesses do not operate in a vacuum. There is a combination of internal and external factors that affect how businesses function.

State and explain any **FOUR** external environmental factors that affect a business.

(**20 Marks)**

QUESTION 3

In every country, governments have important roles to play in order to achieve desired economic goals.

Required:

a. State **FIVE** reasons for the increasing role of Government in the Nigerian Financial System.

(10 Marks)

b. State **FIVE** mechanisms for government intervention in the financial system.

(10 Marks)

(Total 20 Marks)

QUESTION 4

In evaluating capital investment projects, relevant inflows and outflows expected to be generated and used by the proposed capital investment must be determined prior to the commencement of the project.

Required:

a. List and explain **FOUR** major cashflow items to be included in a capital investment project.

(8 Marks)

b. i. Explain the payback period technique of investment appraisal.   (4 Marks)

ii. State **TWO** advantages and **TWO** disadvantages of payback period.

(8 Marks)
(Total 20 Marks)

QUESTION 5

Abraham Maslow proposes that human beings are motivated by multiple needs which are arranged in a hierarchical order.

a. List and explain the **FIVE** general types of human needs in ascending order.

(15 Marks)

b. Write briefly on the following:
    i.   Hygiene factors
    ii. Motivators   (5 Marks)
(Total 20 Marks)

QUESTION 6

a. Describe the Boston Consulting Group (BCG) matrix.   (4 Marks)

b. Explain the product-market strategy that might be chosen for products in each quadrant of the matrix.   (12 Marks)

c. List **TWO** weaknesses of the BCG matrix as a model for strategic analysis.

(4 Marks)
(Total 20 Marks)

MCQ

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

EXAMINER'S REPORT

The questions test all aspects of the syllabus.
Over 60% of all candidates did well in this section. The major pitfall was inadequate knowledge of the concept and principles involved in some of the questions.

Candidates are advised to study hard by reading basic textbooks in Management and Finance as well as the ICAN Pathfinders.

They are also advised to always cover the entire syllabus when preparing for the examination.

SOLUTION 1

a. (i)   Features of Memorandum of Association

The memorandum of Association regulates the external activities of the company. It contains the following:

- The name of the company.
- The names and addresses of the shareholders.
- The number of share held by each shareholder.
- The location of the registered office.
- The objectives of the company.
- The type of contracts the company can enter into.
- The names and addresses of the first directors
- A statement on whether liability of the members is limited by shares or guarantee.
- A statement on whether the company is private or public.

(ii)   Features of Articles of Association. It regulates
- The internal relation of the company
- The rights of shareholders
- How meetings are convened
- Appointments renewal of directors and other officers
- Power and duties of directors
- Process of liquidation of the company
- Declaration and payment of dividend
- Provision for audit and accounting services
- Capitalization of profits
- Alteration of a companyøs capital and transfer as well as transmission of shares

(iii)   Features of Public Sector Entity:
- It is owned by the government
- It is created by an Act of Parliament
- It is managed by board of directors appointed by the government
- It renders essential services
- It is not established for profit
- It requires huge capital outlay

       -      Accounting standard is guided by IPSAS (International Public Sector Accounting Standard)
- It is largely funded by the government
- It is accountable to and do report to the government
- The employees are members of public service

B. The benefits of partnership include:
- Shared management and pooled knowledge
- Attraction of more financial resources
- Continuity in comparison with the sole proprietorship
- Division of labour
- Sharing of risks and losses
- Opportunities for a limited partner
- Availability of leisure time
- It is easier to form when compared to limited liability company
- More borrowing capacity compared to sole proprietorship
- Less government regulations compared to limited liability company
- The affairs of partnership business is private compared to limited liability company

EXAMINER'S REPORT

The question tests the concepts involved in the formation of Limited Liability companies and forms of business organizations.

About 60% of candidates who attempted the question passed.

On Part (a) of the question, the major pitfall of candidates was the inability to distinguish between Memorandum and Articles of Association. The candidates also confused the features of Public Sector Entity with that of Public Limited Company.

In Part (b), candidates could not specifically differentiate between advantages and disadvantages of each of the different types of businesses.

Candidates should pay attention to details in studying the different types of businesses. They should also endeavour to understand and be able to recognise the features of specific concepts.

SOLUTION 2

The following are external environment factors that affect a business:

I. Political factors
II. Economic factors
III. Social/Cultural factors
IV. Technological factors
V. Foreign/International factors
VI. Ecological/Environmental factors
VII. Legal factors

Explanation of the factors:

I. **Political Factors**: The political factors have a major effect on the level of opportunities and threats that abound in a business environment. Business is concerned with the stability of politics, the attitude and actions of those who operate the apparatus of government, (whether the government is democratic, military or dictatorial), frequency in change of government (either through *coup d'etat* or by revolution), existence of indigenization decree, the constitutional framework, derivation principle, and division of legislative power between various tiers of government.

II. **Economic Factors**: Business owners and managers will be more willing to trade or invest in an economy, if they feel that they stand a chance of getting high returns on their investment. This willingness to take risk is influenced by the economic system of the country, policies of government, fiscal policies, national income competition, government control of or participation in business, interest rate, inflation rate and foreign exchange rate.

III. **Socio-Cultural Factors**: The Socio-Cultural factors affect how people live and behave, why they live and behave as they do. Thus, socio-cultural factors affect behaviour. This behaviour affects the spending pattern, the social values, life style, religious relations and tolerance, civil harmony and security, etc. The manager cannot afford to take the social and cultural factors for granted.

IV. **Technological Factors**: The level of technology in a country or an industry will largely determine the product and services produced, the equipment to use and how the organization's operations are managed. Business should be concerned with the emphasis on technological development, technology transfer, Research and Development efforts, skill acquisition, communication system, infrastructural and managerial technology, technological devices like computer engineering, lasers, cloning, satellite, networks, fiber optics, electronic money transfer and internet.

V. **Foreign/International Factors**: Organizations are no longer restricted by their national boundaries. As they expand, there may be need to move to other countries to do business.

The business environment of a foreign country is different from that of the home country of the company. The social, legal, political, economic, technological environment of another country differs from the home environment.

VI. **Ecological Factors**: These factors cover the trends in the supply and cost of natural resources (such as raw materials availability or scarcity) and the problems of environmental deterioration and pollution control. The combined effects of those elements not only create threats which the business must avoid but also present opportunities which the business must be ready to tap.

VII. **Legal Factors**: In carrying out the legal environmental analysis and identification of issues that can be relevant in legal environment, one should consider the following variables:

- Legal framework relating to contract, criminal laws, torts, fraud and misrepresentation

- Law relating to business registration and requirements
- Employment laws , minimum wage laws
- Laws relating to welfare and safety at work
- Company laws
- Laws relating to total quality control measures
- Tax laws

EXAMINER'S REPORT

The question tests candidates' knowledge of the external environment of business. About 60% of those who attempted the question performed well.

The major pitfall was the inability of the candidates to determine what factors were in the external environment. Another pitfall was the candidates' confusion of the internal environmental factors with the external environmental factors. Most of the candidates also thought that external factors in the environment are limited to political, economical, social/cultural and technological (PEST).

Candidates are advised to have a clear understanding of environment of business – macro (External) and micro (Internal) variables or factors.

SOLUTION 3

a.   Reasons for the increasing role of government in the Nigerian financial system include:
      a.   To maintain monetary stability in the economy
      b.   To ensure general growth and development of the economy
      c.   To maintain a balance or healthy competition locally and internationally
      d.   To encourage private sector contribution to the economy
      e.   To encourage foreign investment into the economy
      f.   The need to borrow to finance budget deficits or meet emergencies
      g.   To create avenue for more employment generation in the economy
      h.   To protect members of the public against indecency and fraudulent practices
      i.   The need to divert loanable fund to the real sectors of the economy in line with the long term development goals of the government.

b.   Mechanisms for government intervention in the financial system can be categorized into two:
            i.   The use of monetary policy, and
            ii.   The use of fiscal policy

      i)   The use of monetary policy mechanisms include:

            1.   Open Market Operations: The sale and purchase of government treasury bills and certificates in order to control the supply of money.
            2.   Changes in cash reserve rate
            3.   Changes in monetary policy rate (MPR). The MPR affects the general interest rate in the economy
            4.   Changes in liquidity ratio
            5.   Changes in margin requirement
            6.   The use of moral suasion
            7.   The use of prudential guidelines
            8.   The use of stabilization securities
            9.   Recapitalization of the banking system

      ii)   Fiscal Policy mechanisms:
            These include:
            1.   The issue of bonds and other government securities
            2.   Changes in tax rates of financial institutions which could affect their scale of operations
            3.   The use of government expenditure
            4.   The use of incomes and pricing policy guidelines
            5.   Nationalization of some industries

6.   Setting up of institutions like SURE-P, Economic and Financial Crime Commission (EFCC), and Independent Corrupt Practices Commission (ICPC).

EXAMINER'S REPORT

The question tests the role of government in the financial system and the mechanisms for intervention.

About 45% of candidates who attempted the question performed well.

The commonest pitfall of those who did not do well was their inability to identify the mechanisms for government intervention in the financial system.

Some of the candidates confused fiscal policy with monetary policy instruments.

Candidates are advised to make use of the relevant materials including the Pathfinder.

SOLUTION 4

a.   Major cash flow items to be included in a capital investment project appraisal include the following:

i.   Initial capital outlay which is the relevant cash outlay at time zero

ii.   Additional capital outlay: This represent additional cash invested depending on the planned investment of the company

iii. Operating cash outlay/inflows: This relates to cash sales (revenue) and receivable (debtors) and payment to suppliers and employees (payable) in respect of the daily operation of the company

iv.   After tax based cash flows: Taxes must be fully reflected in all capital investment appraisals.

v.   Terminal cash flows: This represents the after tax non-operating cash flows which occur at the final year of a project, usually attributable to the liquidation of a project.

vi.   Cash flows that will arise as a direct consequence of the capital investment decision.

vii.   Incremental cash flows or cash flows based in the opportunity cost: These are cash flows realizable solely because of the capital investment decision at hand

b.(i)   Payback Period Investment Appraisal Technique

This is the method of investment appraisal based solely on cash flows and not profit. The payback period shows the number of years over which the investment would be recouped and measures how fast the investor can recover his/her initial investment. It is a measure of liquidity and it ignores all other cash flows after the payback period.

The payback period pays attention to the shortness of the project, the shorter the period of recovery of initial investment, the more acceptable the project.

For uniform cash inflows, the payback period is calculated as follows:

Payback Period   = $\dfrac{\text{Initial Capital Investment}}{\text{Annual net cash flows}}$

Decision Rule:

The decision rule for accepting or rejecting a project is by establishing a maximum acceptable payback period.

The project is accepted if the expected payback period is less than the maximum acceptable payback period.

The project is rejected if the project period payback is greater than the acceptable payback period.

In respect of multiple projects, the project with the least payback period is accepted.

b. (ii)   Advantages and Disadvantages of Payback period

Advantages
a) It is simple to calculate and understand
b) It least exposes the company to the problem of uncertainty/risks since it focuses on shortness of project payback of the initial outlay.
c) Payback period is universally used especially by SMES.
d) It is a fast screening technique especially for the companies that have liquidity problems.
e) It uses cash flows and not accounting profits

Disadvantages
  a. It does not take into account cash flows earned after the payback period.
  b. It does not take into account time value of money.
  c. It gives high emphasis on liquidity and ignores profitability.
  d. It ignores the timing of the cash flows during the payback period.

EXAMINER'S REPORT

The question tests Capital Budgeting Investment Technique with particular emphasis on payback period.

About 40% of candidates who attempted the question performed well.

The major pitfall of the candidates who did not do well was their inability to understand the major cash-flow items included in the capital investment appraisal.

Candidates are advised to pay more attention to all the important concepts and principles involved in investment appraisal techniques.

SOLUTION 5

a.   Stages in Abraham Maslow hierarchy of needs in ascending order of importance.
        1. Physiological needs
        2. Safety needs
        3. Belongingness/social needs
        4. Esteem needs
        5. Self-actualization needs

Explanations

  1. **Physiological Needs**: These are the primary and basic needs for human survival. They include shelter, food, water, air and clothing. In relation to organizations, the needs constitute adequate heat, air and salary. For Maslow, these needs are primary because they must be satisfied to ensure existence before higher order needs can be sought.

  2. **Safety Needs**: These needs are the second group of the primary needs and they are concerned with the need to operate in an environment that is physically and psychologically safe. It is the desire for freedom from physical harm and danger, and loss of job and property. In organisations, they relate to need for safe job that is free from physical assault and health hazards and which equally guarantee stable job and security.

3. **Belongingness/Social Needs**: These needs are first of the secondary needs. Maslow proposes that after satisfying security needs people then aim at being loved and accepted by others. Social needs entail being part of a group where one is not alienated. In organization, employees' desire and value friendly co-workers as it is often seen as part of conducive working climate. Formation of work groups somewhat stem from the urge to meet these needs

4. **Esteem Needs**: These needs have to do with the need for reputable self –image and self worth. It is the need to gain other person's attention, admiration and recognition for achievements and success. In organisations, employee often desire recognition for higher performance. This can be done through prize giving ceremonies, reserved parking spots or plaques honoring the "employee of the month".

5. **Self Actualization Needs**: These are needs for self fulfilment and they are the highest need among the secondary needs. These needs are classified as open-ended as they represent the need to become more and more what one is and all that one can really be. In an organisation, workers that may be termed achievers and high fliers would cherish careers that provide them opportunity to become what they can possibly be by fully actualizing their potentials. Managers are often advised to encourage subordinates through effective delegations and work design that allow creativity.

b. Brief explanation of Hygiene Factors and Motivators

i. Hygiene Factors: This is one of Herzberg two factor theories. These factors relate to the presence or absence of job dissatisfaction.

Dissatisfying factors include:
- Working conditions
- Company policies and administration
- Supervisor's attitudes
- Relationship with peers/co-workers
- Pay/salary
- Security

Weak hygiene factors in an organisation usually lead to dissatisfaction among workers, but their presence does not guarantee job satisfaction. The managerial implication is to ensure that hygiene factors are provided in work place.

ii. Motivators: These are high-level needs which possess the power to influence or determine job satisfaction. They include:

- Achievement
- Recognition
- Work itself
- Responsibility
- Advancement
- Growth

Motivators should be fused into work design to elicit grater performance and achievement from employees.

EXAMINER'S REPORT

The question tests candidates' knowledge of Maslow hierarchy of needs theory and the Herzberg's two factors theory of motivation.

More than 50% of the candidates attempted the question. Out of these, more than 50% scored 50% or above of the total mark allocated to the question.

The commonest pitfall was that the candidates did not understand the ascending order arrangement. The Herzberg theory of motivation was confused with McGregor Theories of X and Y.

**Candidates' are advised to study more on motivation theories and to differentiate them from other related theories.**
QUESTION 6

a. The Boston Consulting Group (BCG) matrix is a model by which businesses are classified in relation to market growth and relative market share.

The strategy of each business is determined on the basis of the following factors:

(i) The growth rate of its market
(ii) The market share it enjoys

The matrix can be depicted by the following quadrant:

Market Share

High   High ← ——————————— Low →
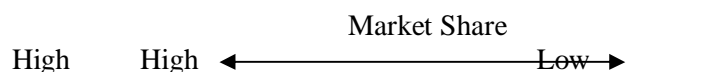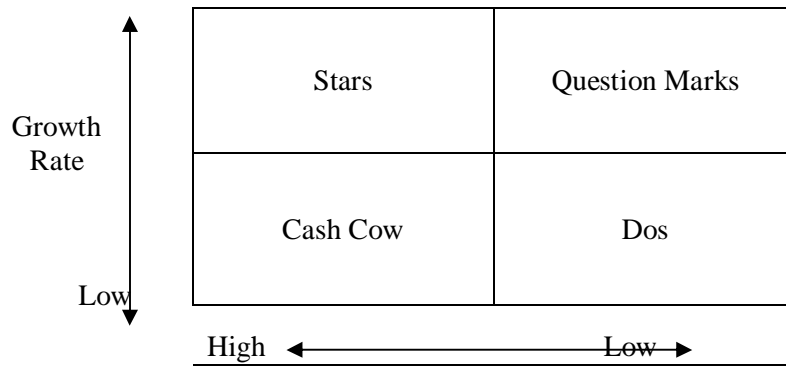
b. The product-market strategy that might be chosen for each business in the quadrants of the matrix.

(i) Stars

Stars operate in a high growth market and are dominant. They require heavy cash spending to keep up with the growth rate in the market. These also guarantee high cash flows but the heavy cash investment required to maintain their position in the growing market could affect their performance.

The product market strategy may include advertising, sales promotion and price control to maintain market growth.

(ii) Question marks (Problem children)

These are businesses that operate in a high growth market but have low relative shares of the market. They create opportunity for long-term growth and profit.

The product market strategy may involve harvesting, divestment and liquidation.

(iii) Cash cow

These are businesses that have high market share in mature, low growth market. They generate heavy cash flows but low profitability. Because growth is low, and market conditions are more stable, they lack opportunities for future expansion.

The appropriate product strategy is consolidation or stability to generate cash flow for other business(es).

(iv) Dogs

These are businesses with low market share and low market growth. They have weak competitive position in the market and offer few and no benefits to the company.

The product market strategy is divestment and liquidation because it is not appropriate to invest in a business with bleak future.

c. Limitations of Bosting Consulting Group matrix
   a) It neglects the effects of synergies between business units.
   b) High market share is not the only success factor.
   c) Market growth is not the only indicator for attractiveness of a market.
   d) The problem of getting data on the market share and market growth.
   e) There is no clear definition of what constitutes a market.
   f) A high market share does not necessarily lead to profitability all the time.
   g) A business with a low market share can be profitable too.
   h) The model neglects small companies that have fast growth market shares.

EXAMINER'S REPORT

The question tests candidates' knowledge and understanding of business strategy particularly Boston Consulting Group Matrix.

About 95% of those who attempted the question passed, scored 50% or more of the mark allocated to the question.

The commonest pitfall of candidates' that did not do well was their inability to state the weakness of BCG Matrix.

Candidates should get themselves familiar with the application of BCG Matrix to business.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

FOUNDATION LEVEL EXAMINATIONS - MAY 2015

BUSINESS LAW

Time Allowed: 3 hours

SECTION A: **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.   Nigerian Laws, apart from customary law, are greatly influenced by

   A.   English Law
   B.   English Decree
   C.   English Edicts
   D.   English Orientals
   E.   English Courts

2.   Another name for judicial precedent is

   A.   Stared decision
   B.   Starred judgement
   C.   Stare decisis
   D.   Stare courtis
   E.   Stare verdictum

3.   *Prima facie*, the issuance of a Certificate of Incorporation to a company means that the company has complied with the requirements of the

   A.   Companies and Allied Matters Act
   B.   Company registration
   C.   Ministry of Trade
   D.   Secretary of Companies
   E.   Directors of the company

4.   The appointment of a director of a company at a general meeting is by

    A.   Extra-ordinary resolution
    B.   Ordinary resolution
    C.   Special resolution
    D.   Business resolution
    E.   Director resolution

5.   Within what period after incorporation is a public company required to hold its Statutory Meeting?

    A.   1 month
    B.   3 months
    C.   6 months
    D.   12 months
    E.   18 months

6.   The remedies for breach of fiduciary duties by a company director include the following **EXCEPT**

    A.   Accounting to the company for any gain made
    B.   Injunction
    C.   Action for negligence
    D.   Imprisonment
    E.   Removal from office

7.   The court that has original jurisdiction to entertain a suit on matters relating to insolvency is

    A.   State High Court
    B.   Federal High Court
    C.   National Industrial Court
    D.   Customary Court of Appeal
    E.   Sharia Court of Appeal

8. The following are the major characteristics of a floating charge **EXCEPT,** it is

    A. Not attached to any particular asset or assets of the company
    B. Attached to a particular asset or assets of the company
    C. Ambulatory and shifting in nature
    D. Equitable in nature
    E. A form of company security

9. Law, ethics and ethical codes are more acceptable in

    A. Customary Law
    B. English Law
    C. Nigerian Legislation
    D. Judicial Precedent
    E. Common Law

10. The following encompasses Nigerian basic laws on theft, fraud and deception, **EXCEPT**
    A. Criminal Code
    B. Penal Code
    C. Corrupt Practices and Other Related Offences Act
    D. Economic and Financial Crimes Commission Act
    E. Bankruptcy Act

11. In relation to a negotiable instrument, a crime is committed by the drawer of the instrument if **ONE** of the following situations occurs:

    A. The instrument is not dated
    B. The instrument is not signed
    C. There is insufficient funds in the account to cover the value of the instrument
    D. The instrument is stale
    E. The instrument is stolen by a third party

12. Electronic facts are now admissible in Nigeria by virtue of the
    A. Evidence Act
    B. Recommendations from the National Conference
    C.   Amendment to the 1999 Constitution of the Federal Republic of Nigeria
    D. The efforts of forensic experts
    E. The efforts and testimonies of computer expert witnesses in court

13. The basic laws relating to money laundering in Nigeria have the following attributes **EXCEPT**
    A. Codification
    B. Certainty of the law
    C. Penal provisions for sanctions
    D. Enacted by legislation
    E. Written in local languages

14. An e-contract validly entered into is said to be
    A. Enforceable
    B. Unenforceable
    C.   Void ab initio
    D. Alien to the law
    E. Voidable

15. An agency relationship involves the
    A. Agent alone
    B. Principal alone
    C. Third party alone
    D. Agent, principal and the third party
    E. Third party and the principal

16. The principle of law that makes a master to be liable for the tort of his servant is referred to as

   A. Vicarious liability
   B. Master's liability
   C. Tortious liability
   D. Joint liability
   E. Vexatious liability

17. Under the Sale of Goods Act, goods that are yet to be manufactured are called

   A. Existing goods
   B. Specific goods
   C. Ascertained goods
   D. Future goods
   E. Unascertained goods

18. The consideration in a contract of insurance is
   A. Subrogation
   B. Premium
   C. Assignment
   D. Policy
   E. Money

19. The person on whom a Bill of Exchange is drawn is called
   A. Drawer
   B. Payee
   C. Drawee
   D. Payer
   E. Holder

20. An equitable obligation which imposes a duty on a person to hold property for the benefit of others is called
   A. Equity
   B. Trust
   C. Agency
   D. Hire purchase
   E. Administration

SECTION B: ATTEMPT ANY FOUR OUT OF SIX QUESTIONS   (80 Marks)

QUESTION 1

a. The parties to a civil action differ from the parties to a criminal action.

   You are required to state:

   i.   The parties to a civil action in the High Court;   (2 Marks)

   ii.   The parties to a criminal action in the High Court; and   (2 Marks)

   iii. **SIX** Superior Courts of Record.   (6 Marks)

b. Negligence is a tort.
   You are required to explain briefly any **TWO** defences that are available to a defendant in an action for negligence.   (4 Marks)

c. An insolvent person cannot properly manage his personal affairs.

   Required:

   i.   Explain briefly the term õInsolvencyö.   (2 Marks)
   ii.   State **FOUR** consequences of Insolvency   .   (4 Marks)
                                                          (Total 20 Marks)

QUESTION 2

a. A partnership and a company are similar in some respects, but they are different in many ways.

   Required:
   Explain any **THREE** differences between a partnership and a company.

                                                                   (6 Marks)

b. In relation to a companyøs securities, EXPLAIN the term õdebentureö.

                                                                   (4 Marks)

c. Joe, a Pharmacist, is a director in Wuzup Pharmaceutical Company Limited. Last month, an investigation by police detectives revealed that Joe had been stealing drugs from the companyøs store and selling them in his own private pharmacy. The board of Wuzup Pharmaceutical Company Limited was unaware that Joe owned and operated a private pharmacy.

   It was also discovered that Joe had been accepting bribes from suppliers of chemicals to Wuzup Pharmaceutical Company Limited.

   In view of these findings, the company has invited you to advise it on the duties of a company director.

Required:

i. State any **FOUR** duties of a company director. (4 Marks)

ii. Comment briefly on the legal implications of Joe's actions in relation to his duties as a director in Wuzup Pharmaceutical Company Limited.

(6 Marks)
(Total 20 Marks)

QUESTION 3

a. 'X', 'Y' and 'Z' formed a partnership in 2007 and contributed ₦400,000, ₦300,000 and ₦200,000 respectively. In the course of managing the firm, Y paid the electricity bills of the firm to keep the business of the partnership going, and wants to be reimbursed. X intends to introduce a friend to join the partnership.

Required:
What are the positions of the law in the situations above? (10 Marks)

b. The Companies and Allied Matters Act requires limited liability companies to have at least two directors.

Required:

Explain any **TWO** qualifications that a person must possess to be eligible for appointment as a director of a company. (5 Marks)

c. Mr. 'A', a shareholder of Zee Limited, desires to transfer his shares in the company to Mr. 'B'.

Required:

State and explain any **TWO** requirements of the Companies and Allied Matters Act that must be met for the transfer of Mr. A's shares to Mr. 'B' to be effective.

(5 Marks)
(Total 20 Marks)

QUESTION 4

a. Bribery is an offence against the government and the public.

Required:

State any **FOUR** statutes that contain provisions against bribery in Nigeria.

(4 Marks)

b. A person's conduct may be an offence or a civil wrong.

Required:

State and explain any **THREE** main distinctions between an offence and a civil wrong.

(6 Marks)

c.   Common Law regards some contracts as void.

Required:

State and explain any **TWO** contracts that are void at Common Law.

(6 Marks)

d.   Upon incorporation of a company, the company assumes a different personality, distinct and separate from its owners.

Required:

List any **FOUR** other consequences of incorporation.   (4 Marks)

(Total 20 Marks)

QUESTION 5

a.   Assignment is **ONE** of the principles in a contract of insurance.

Required:

i.   Define the concept of assignment in relation to insurance contract.

(3 Marks)

ii.   State the **THREE** types of assignment that are possible under an insurance contract.   (3 Marks)

iii.   õInsurance contracts are contracts *uberrimae fidei"*. **EXPLAIN** this doctrine, and state any **ONE** major duty the doctrine imposes on the parties to an insurance contract.   (4 Marks)

b.   A contract can be affected by vitiating factors of which misrepresentation is an example.

Required:

i.   What is misrepresentation? State any **ONE** type of misrepresentation.

(2 Marks)

ii.   State any **TWO** effects of misrepresentation on contracts.   (2 Marks)

c.   A negotiable instrument is a written promise to pay money.

Required:

Explain **THREE** characteristics of a negotiable instrument.   (6 Marks)

(Total 20 Marks)

QUESTION 6

a. Bills of Exchange are used in several ways, including for payment of debts and provision of credits.

   Required:

   Explain briefly any **TWO** types of Bills of Exchange.   (5 Marks)

b. There are different types of special agents.

   Required:

   Explain who a õ*del credere''* agent is.   (4 Marks)

c. State any **TWO** duties of a hirer.   (4 Marks)

d. Enumerate any **TWO** duties of a Personal Representative.   (4 Marks)

e. State any THREE instances in which an employee may be entitled to redundancy benefits.   (3 Marks)

   (Total 20 Marks)

MCQ SOLUTIONS

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

Examiner's Report

The questions achieved a good spread over the syllabus, and candidates' performance was good.

SOLUTION 1

a.   (i)   The parties to a civil action in the High Court are the Plaintiff/Claimant
          and the Defendant.

(ii)   The parties to a criminal action in the High Court are the State and the Accused/Defendant.

(iii)   The Superior Courts of Record are the
-          Supreme Court;
-          Court of Appeal;
-          Federal High Court;
-          High Court;
-          Sharia Court of Appeal;
-          Customary Court;
-          National Industrial Court; and
-          High Court of the Federal Capital Territory.

(a)   The defendant can raise the following defences in an action for negligence:

(i)   That the injury was caused by an inevitable accident;

(ii)   That the plaintiff willingly assumed the risk of injury (*Volenti non-fit injuria*), despite his knowledge of the consequence of his action. Therefore, the defendant is not liable;

(iii)   That there was contributory negligence showing that the plaintiff contributed to the injury he had suffered. This means that the plaintiff could have avoided the accident if he did not take a particular action;

(iv)   *Novus actus intervenes,* which entitles the defendant to show that the intervening act of a claimant or that of a third party sets in between the wrongful act of the defendant, thereby breaking the chain of causation. Consequently, the defendant should not be liable for the injury to the plaintiff;

(b)   (i)   An insolvent person is one who cannot meet his financial obligations to his creditors as at when due. In essence, he is a debtor to some people who are his creditors. The liability of the person exceeds his assets.

(ii)   The consequences of insolvency include the following:
-          Insolvency exposes the person to bankruptcy petition by his creditors. The creditors have the right to commence an action against the insolvent person;

-          It exposes the insolvent person to the possibility of being sued by creditors to recover their money;

-          The person adjudged to be insolvent may not need to pay tax on the forgiven debt or the portion of it counted as income;

- When the bankruptcy petition is concluded, the assets of the bankrupt person will be transferred to his trustee-in- bankruptcy; and

- The insolvent person is subject to embarrassment and harassment by his creditors.

Examiner's Report

The questions test candidates' basic knowledge on civil and criminal proceedings, negligence and Insolvency.

Candidates' performance was very good.

SOLUTION 2

(a)   The differences between a partnership and a company include the following:

   (i)   A company has a separate personality once it is incorporated, but registration of a partnership under the registration of business names provisions does not confer a separate personality on the partnership;

   (ii)   No specific formality is required for the formation of a partnership. It may be formed orally, but a company could only be incorporated formally upon the filing of all necessary incorporation documents;

   (iii)   Except in the case of certain professionals, it is illegal to form a partnership of more than 20 persons. There is no such maximum membership in the case of a public Company. However, the membership of a private company is limited to fifty, excluding members/employees or former members/employees who have ceased to be employees of the company;

   (iv)   Except for the limited partners in a limited partnership, the liability of the partners is unlimited, whereas the liability of the members of a limited liability company is limited to the value of shares held by them; and

   (v)   A company has perpetual succession, and continues to exist notwithstanding change in its membership brought by death or retirement; whereas a partnership is brought to an end by the death or retirement of a partner.

(b)   Debenture refers to a document that acknowledges and contains the terms of corporate indebtedness.

It is in many ways similar to a share, but the fundamental difference between them is that the holder of a debenture is not a member of a company but its creditor.

Debentures may be perpetual, redeemable, convertible, secured or naked. In addition, conditions are usually prescribed for the realization of the debt.

(c) (i) The duties of a company director are:
- To exercise his power in good faith and for proper purpose;
- Not to allow his personal interest to be in conflict with his duty to the company;
- Not to make secret profit;
- To always act in the interest of the company;
- Not to fetter his discretion to vote in a particular way ;
- Of care and skill;
- To render accounts; and
- To disclose interest in a contract with the company;

(ii) A director must not allow his personal interest to conflict with his duties as a director. A director is also prohibited from making secret profit in his relationship with the company.

The director is under a duty not to compete with the company and must disclose his interest in any contract with the company to the Board, independently of himself.

The legal implication of Joe's action is that he has breached his fiduciary duties to the company and, must account to the company the secret profits made from the fraudulent transactions. In addition, the company could remove him as a director by an ordinary resolution.

Examiner's Report

The questions test candidates' understanding of partnership, debenture and company directors' duties.

Candidates' performance was very good.

SOLUTION 3

The principle of law on any payment made on behalf of a partnership business is that the firm must indemnify the paying partner for the payment and other expenses incurred by him in:

(a)   The ordinary and proper conduct of the business of the firm; or

(b)   About anything necessarily done for the preservation of the business or property of the firm.

Therefore, ÷Yø that paid the electricity bills of the firm to keep the business of the partnership going is entitled to be reimbursed for the payment of the electricity bills made in the furtherance of the business of the firm.

On the introduction of a new partner to the firm, the principle of law is that no person may be introduced as a partner in the firm without the consent of all the existing partners.

Consequently, X could bring his friend as a partner in the firm only on the condition that all the existing partners (Y and Z) gave their consent to the move.

b.   A person could only be appointed as a director of a company if he satisfies the underlisted qualifications:

(i)   Legal capacity: Section 257 of the Companies and Allied Matters Act provides that a person to be appointed as a director must not be an infant (below the age of 18 years), and must be mentally stable. He must not be a lunatic or a person of unsound mind.

(ii)   A person to be appointed a director must not be a bankrupt or be involved in any arrangement or composition with his creditors. This is to ensure that a person to be entrusted with the responsibility of managing a company must not be a person certified to be financially reckless or unable to manage his affairs.

(iv)   If the Articles of Association of a company requires that no person should be appointed a director unless he has shares in the company, any person proposed for appointment must be a shareholder before he could be so appointed.

c.   The requirements for successful transfer of shares by the shareholders of Zee Limited are as follows:

(i)   An instrument of transfer must be prepared and executed by the parties. The instrument is a formal agreement evidencing the transfer of shares between the shareholders prepared and signed by the parties involved in the transfer;

(ii)   The company (ZEE Limited) must register the instrument of transfer. This is necessary for proper documentation and to comply with the requirements of the Companies and Allied Matters Act;

(iii)   A duly executed instrument of transfer must be presented to the company. The Companies and Allied Maters Act makes this presentation mandatory for proper record keeping; and

(iv)   The instrument of transfer must cover one class of shares only. In other words, the agreement in respect of the transfer must be for one category of shares. For example, the agreement cannot be for the transfer of ordinary shares and preference shares together.

Examiner's Report

The questions test candidates' knowledge of partnership law, company directors' duties and transfer of company shares.

The candidates that attempted the question were less than 40%, and performance was poor.

Candidates' major pitfall was the display of shallow knowledge of the topics.
Candidates are advised to pay more attention to these areas of the syllabus.

SOLUTION 4

(a)   (i)   Bribery is an offence that could be prosecuted by only or on behalf of the government. The statutes that contain provisions against bribery in Nigeria are as follows:
*   Criminal Code;
*   Penal Code;
*   Corrupt Practices and Other Related Offences Act;
*   Economic and Financial Crime Commission Act;
*   National Agency for Food and Drug Administration and Control Act (NAFDAC ACT); and
*   Money Laundering (Prohibition) Act.

(ii)   A person's conduct may be an offence and a civil wrong. The main distinctions between an offence and a civil wrong are:

- An offence is a wrong against the State. Therefore, it is the State that prosecutes the wrongdoer. On the other hand, for a civil wrong, it is the aggrieved that goes to court to seek redress against the defendant;

- In criminal cases, the standard of proof is beyond all reasonable doubts, whereas in civil cases, the standard of proof is on preponderance of the evidence adduced before the court or the balance of probabilities;

- The ultimate objective of a criminal trial is to punish the culprit in form of a fine, or term of imprisonment, or both. On the other hand, in civil proceedings, the main objective is to compensate the injured party;

- In criminal cases, the sentence pronounced on the accused person/defendant takes an immediate effect, whereas, in all civil actions, the parties must take steps to execute the judgment;

- The procedure in a criminal trial is fundamentally different from the procedure in a civil matter;

- In a criminal matter or case, the State could unilaterally terminate the proceedings by *entenng nolle prosequi,* whereas parties in civil cases must mutually agree to settle out of court; and

- There is no time limit within which an accused could be prosecuted for an offence, whereas, an action for a civil wrong must be commenced within the time specified by the Limitation Act.

i. Contracts that are void at Common Law are of three categories, namely:

(i) Contracts to oust the jurisdiction of the court: These are agreements which purport to deprive the parties of their rights of recourse to court for the settlement of any dispute;

(ii) Contracts in restraint of trade: This is an agreement in which a party covenants to restrict his future liberty to conduct his trade, business or vocation;

(iii) Contract contrary to public policy: Acts that are contrary to public policy include sexual immorality and slavery. It follows that the court will not allow a prostitute to sue for her fee, or enforce an agreement that somebody should not marry, or that the person must marry into a particular ethnic group, religion or nationality; and

(iv) Illegal Contracts: All contracts classified by law as illegal are void *ab-initio.*

(c) Upon incorporation, a company becomes a different personality, distinct and separate from its members. Other consequences of incorporation are:

i. The company's right to own properties;
ii. Perpetual succession;

iii. Limitation of the members' liability to their unpaid shareholding/contribution
iv. The power to borrow money in the company's own name and secure the repayment with its property;
v. The right to sue and be sued in corporate name;
vi. Transferability of shares; and
vii. The power to enter into contracts in its own name and under own seal.

Examiner's Report

The questions test candidates' knowledge of criminal law, void contracts and consequences of company incorporation.

Candidates' performance was above average

SOLUTION 5

(a)   (i)   Assignment is the transfer of rights and, in some cases, duties acquired under the contract of insurance from the Assignor to another person known as the Assignee.

    (ii)   The three types of Assignment that are possible under insurance contract are:

- Assignment of the subject-matter of the contract;
- Assignment of the benefit of the contract; and
- Assignment of the contract itself.

    (iii)   "Insurance contracts are contracts *uberimae fidei*", meaning that the contracts of insurance are of absolute good faith among the parties to them.

The insurer and the person who is applying for an Insurance have a duty to deal honestly and openly with each other in the negotiation that leads to the formation of the contract.

The duties imposed on the parties to the contract of insurance under this doctrine are:

- The duty not to misrepresent any matter relating to the contract. This implies that the parties must give information that are factually true; and

- The duty to give all relevant information that will enable the parties to make up their minds whether or not to enter into the contract.

- A misrepresentation is an untrue statement of fact that induces one of the parties to the contract to enter into an agreement.

A misrepresentation can be divided into:

- Innocent misrepresentation; and
- Fraudulent misrepresentation

- The effects of misrepresentation on a contract are:
  - The offended party may void the contract;
  - The party that was misled by the misrepresentation to enter into the contract may rescind the agreement;
  - The party that was misled by the misrepresentation may sue for damages and allow the contract to stand; and
  - The offended party may ask the court to expunge the terms that are misrepresented in the agreement.

c. The characteristics of a negotiable instrument are:

- It is transferable by mere delivery if payable to bearer, or by delivery coupled with endorsement if payable to order;
- It is not necessary for the transferee to give notice to the debtor as in the case of other choses in action;
- Consideration which is something valuable in the eye of the law is presumed to have been given for the instrument;
- Full legal title to it passes to the transferee who, in consequence, can sue in his own name for the rights conferred by it; and
- It is transferable by delivery, with or without endorsement and according to the circumstances, the title passes to the transferee.

Examiner's Report

The question tests candidates' knowledge of assignment in insurance contract, misrepresentation in law of contract and negotiable instruments.

40% of the candidates attempted the question, and performance was good.

SOLUTION 6

a)   Types of Bills of Exchange are:

(i)   **Inland Bill**: This is a bill either drawn or payable within Nigeria.

(ii)   **Incomplete or Inchoate Bill**: This is a bill lacking in some material particular. There is a *prima facie* authority to the holder of such a bill to fill in the omission within a reasonable time;

(iii)   **Accommodation Bill**: This is a bill signed by an accommodation party who is a person that has not received value for the purpose of lending his name;

(iv)   **Foreign Bill**:   This is a bill drawn outside Nigeria or outside the Nigerian territory;

(v)   **Order Bill**: This is a bill drawn payable to a specified person, e.g, ₋pay John or order₀ Such a bill could be negotiated by endorsement and subsequent delivery; and

(v)   **Bearer Bill**: This is a bill payable to a specified person or bearer e.g ₋pay to the bearer. It could be negotiated or transferred by delivery.

(a)   A *del credere* agent is a mercantile agent who, in consideration of an extra commission, guarantees his principal that the third party with whom he contracts on behalf of the principal shall pay the sum due under the contract. The liability of a *del eredere* agent does not cover a situation where the third party refuses to take delivery. He is a surety that is liable to his principal if the buyer fails to pay.

(b)   The duties of a hirer are as follows:
(i)   Duty to accept the goods, subject-matter of the transaction;
(ii)   Duty to take reasonable care of the goods;
(iii)   Duty to pay instalments as at when due;
(iv)   Duty to redeliver the goods to the owner at the agreed time if he does not exercise the option to purchase same; and
(v)   Duty to inform the owner of the location of the goods.

(c)   The duties of a Personal Representative include the duty to:
(i)   Bury the deceased;
(ii)   Prove the Will and get probate or obtain letters of administration;
(iii)   Take inventory of the property of the deceased;
(iv)   Pay legacies and distribute property to those entitled; and
(v)   Pay justifiable debts and other liabilities of the deceased in order of priority.

(d)   Redundancy benefits may be payable to an employee in any of the following instances:

(i)   Where the number of employees is more than the available jobs, and the employer has agreed to the payment with the employees'trade union;

(ii)   The employer has ceased or intends to cease to carry on the business for which the employee was employed;

(iii)   The employer has ceased, or intends to cease to carry on the business in the place where the employee was employed; and

(iv)   If there is provision for redundancy payment to employee in the conditions of service and the prescribed conditions are satisfied.

Examiner's Report

The questions test candidates' understanding of Bill of Exchange, Hire Purchase contracts, Administration of Estates and Employment Law.

About 80% of the candidates attempted the question and performance was just average.

Candidates' major pitfall was their deficient knowledge of Law of Trusts. Administration of Estates and Employment Contract.

Candidates are advised to study these areas of the syllabus very well.