THE INSTITUTE OF CHARTERED ACCOUNTANTS
OF NIGERIA

PATHFINDER

MAY 2012 PROFESSIONAL EXAMINATION I

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 so the professional performance of candidates.

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

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

NOTES

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

TABLE OF CONTENTS

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I – MAY 2012
FINANCIAL ACCOUNTING

Time Allowed – 3 hours

SECTION A: Attempt All Questions

PART I: MULTIPLE-CHOICE QUESTIONS (20 Marks)

Write only the alphabet (A, B, C, D or E) that corresponds with the correct option in each of the following questions:

1. The basis of measurement used for inventory values included in the financial statement is

   A. Realisable value or net realisable value
   B. Historical cost and net realisable value
   C. Present value and lower of cost
   D. Current cost less purchase price
   E. Lower of cost and net realisable value

2. Which ONE of the underlisted is an inventory valuation method that takes into consideration the impact of inflation but which has been disallowed by IFRS?

   A. First-In-First Out (FIFO) method
   B. Last-In-First Out (LIFO) method
   C. Average method
   D. Cost method
   E. Weighted average method

Use the following information to answer questions 3 and 4:

	₦'000
Non-current asset	12,500
Inventory	1,080
Trade Receivables	
	3,029
Trade Payables	1,829
Capital	13,460
Retained Earnings	1,320

3. Calculate the proprietary percentage

A. 100%
B. 89%
C. 79%
D. 60%
E. 59%

4. Calculate the quick asset ratio

A. 2.19:1
B. 1.66:1
C. 1.17:1
D. 0.15:1
E. 0.10:1

5. After liquidation, a company has ₦3,825,000 for distribution to:
Holders of 2,250,000 10% cumulative preference shares of ₦1.00 each
Holders of 3,750,000 ordinary shares of ₦1.00 each
There were no arrears payable to preference shareholders.

Calculate the sum due to the ordinary shareholders

A. ₦675,000
B. ₦1,434,375
C. ₦2,390,625
D. ₦3,065,625
E. ₦3,375,000

6. A farmer used aluminium containers to sell his product in the following pattern:

Containers b/f	133,600
Containers charged out	217,100
Containers returned	158,650
Containers returnable	116,900

Calculate the quantity of containers retained by customers

A. 58,450
B. 75,150
C. 100,200
D. 275,550
E. 350,700

7. The statement of cash flows is universally accepted and required under GAAP and IFRS. Specifically, IAS 7 encourages two methods of preparation referred to as:

A. Opening and closing methods
B. Fund and cash methods
C. Direct and indirect methods
D. Part year and full year methods
E. Acquisition and merger methods

8. A company may purchase its own shares under the following conditions as authorised by CAMA CAP C20 LFN 2004 EXCEPT if it is

A. Ordered by the court
B. To eliminate fractional shares
C. Highly priced in the market
D. A claim of dissenting shareholder
E. To fulfil a non-assignable agreement

9. CAMA CAP C20 LFN 2004 stipulates rendering of annual returns which is to be delivered to Corporate Affairs Commission (CAC). The returns are made up of the following EXCEPT:

A. Audited accounts

B. Management accounts
C. Register of members
D. Indebtedness of the company
E. Members and Directors

10. In accordance with Pension Reform Act of 2004, what is the pension deductible from a staff with the following monthly salaries and allowances: Basic ₦15,000; Housing Allowance ₦8,500, Transport Allowance ₦7,500 and others ₦5,500?

A. ₦563
B. ₦638
C. ₦1,688
D. ₦1,763
E. ₦2,325

11. A company has finalised the deferred tax calculation on 1 October 2010 in relation to its acquisition of a subsidiary on 1 January 2010. The adjustment required will

A. Be ignored as it is too long since acquisition
B. Be adjusted through company income tax
C. Affect the calculation of goodwill
D. Be adjusted through the income account
E. Be adjusted through non-controlling account

12. Non-controlling interest should be disclosed in consolidated statement of financial position as

A. Part of non-current liability
B. Within equity but separate from parent shareholders' equity
C. Part of current liabilities
D. Part of equity of the parent company
E. Investment but with a negative value

13. On 31/12/2010, Cakey Plc acquired 18 million shares of the 22.5 million issued shares of Sweety Plc for ₦45 million. On that date, the acquired Sweety Plc had retained earnings amounting to ₦6 million and the fair value of its net assets was ₦28.5 million.

Calculate the non-controlling interest

A. ₦5,900,000
B. ₦5,800,000
C. ₦5,700,000
D. ₦5,600,000
E. ₦5,500,000

14. Extracts from the Statement of Financial Position of Holiva Plc and Long Gear Plc as at 31/12/2010 are as follows:

	Holiva Plc	Long Gear Plc
	₦'000	₦'000
Share Capital		
Ordinary share at ₦1.00 each	180,000	60,000
Accumulated Reserves	48,000	24,000
	228,000	84,000

The entire share capital of Long Gear Plc was acquired when the accumulated reserves was ₦18 million. Cost of acquisition was ₦114 million.

What is the post-acquisition reserves in the consolidated financial statement?

A. ₦50,000,000
B. ₦52,000,000
C. ₦54,000,000
D. ₦56,000,000
E. ₦58,000,000

15. Using the sum-of-the-year digit in hire-purchase agreement, calculate the finance charge in the income statement in the third year if the total finance charge for five years is ₦72,000.

A. ₦24,000
B. ₦19,200
C. ₦14,400
D. ₦9,600
E. ₦4,800

16. Prudential guidelines on non-performing loans in deposit banks require that unpaid principal and/or interest which remain outstanding for at least 180 days but less than 360 days, after due date and are not secured by legal title to leased assets or perfected realisable collateral should attract

A. 25% provision
B. 50% provision
C. 75% provision
D. 100% provision
E. No provision

Use the following information to answer questions 17 and 18:

Cocoa Plc owns the entire ordinary share capital of Butter Plc. The following of information are extracted from the individual Statement of Financial Position of the two companies as at 31 December 2011.

	Cocoa Plc.	Butter Plc.
	₦	₦
Current Assets	12,000,000	10,500,000
Current Liabilities		
	7,500,000	3,000,000

17. What is the value of the current assets in the consolidated Statement of Financial Position of Cocoa Plc?

A. ₦13,500,000
B. ₦15,600,000
C. ₦19,500,000
D. ₦21,450,000
E. ₦22,500,000

18. Calculate the net current assets to be included in the Statement of Financial Position of Cocoa Plc

A. ₦10,950,000
B. ₦11,400,000
C. ₦11,550,000
D. ₦12,000,000
E. ₦12,500,000

19. On dissolution, partnership assets are to be distributed in the following order of preference:

i. Repayment of loans proportionally to partners
ii. Settlement of debts and liabilities to outsiders
iii. Proportional repayment of partners' capital

A. i, iii and ii
B. iii, i and ii
C. ii, i and iii
D. ii, iii and i
E. i, ii and iii

20. The database, in which the data is stored in TWO or more computer systems, especially over a network is called

A. Parallel database
B. Distributed database
C. Synchronised database
D. Local-area network
E. Wide-area network

PART II: SHORT-ANSWER QUESTIONS (20 MARKS)

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

1. State TWO principal parties involved in liquidation process of a company

   Use the information below to answer questions 2 and 3

   White sold a machine to Green on hire purchase basis. You are given the following information:

   Cash price ₦2,800,000
   Initial Deposit ₦1,000,000

   A yearly instalment of ₦750,000 payable on 31 December for 4 years, was agreed. The company makes up its accounts to 31 December.

2. Calculate the hire purchase price.

3. Calculate the hire purchase interest attributable to each year using straight line method.

4. The accumulated reserves earned by a subsidiary prior to acquisition by its parent company is……………………………

5. An enterprise in which the investor has significant influence and which is neither a subsidiary nor a joint venture of the investor is called………………

6. Goods were invoiced by a parent to its subsidiary company at cost plus mark-up of 20%. Included in the inventory of the subsidiary at the end of the year, was inter-company sales of ₦3,240,000.

   Calculate the unrealised profit on inventory.

7. Under the International Accounting Standard (IAS) 32, any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity is known as……………………….

8. List TWO items that often arise as a result of the difference between accounting profit and taxable profit.

9. In an information technology environment, the procedure of making separate copies of data available somewhere else so as to mitigate unforeseen circumstances such as disaster is termed…………………………

10. The ratio that determines the proportion of a company's total capital that has a prior claim to profits over those of ordinary shareholders is called…………………

11. The rules and regulations which guide the operation and activities of co-operative societies (including the functions of her principal officers) are ……………………….

12. IAS 41 on Agriculture defined biological assets to include…………….. and………………..

13. TWO long-term solvency ratios are ……………… and……………………

14. The publication made by IASB to explain how it reaches its conclusion and gives background information on exposure drafts and standards is referred to as…………………..

15. Ijeshatedo Limited acquired a car on 1 January 2003 under a two-year hire purchase agreement. An initial deposit of ₦160,000 and four half-yearly instalments of ₦160,000 commencing on 1 July 2003 are required. The cash price is ₦754,400 and the company's year ends every 30 September.

    The hire purchase interest is……………………………

16. TWO major problems associated with the valuation of live stocks are……… and ………..

Use the accounting information below to answer questions 17and 18:

Kolobo Plc owns 85% interest in Bonny Limited. On 31 December 2009, Kolobo Plc's consolidated financial statements showed the carrying value of Bonny Limited's net assets as ₦10 million and the carrying value of the non-controlling interest in Bonny Limited (including the non-controlling interest's share of accumulated comprehensive income) is ₦1million. On 1 January 2010, Kolobo Plc decided to sell 50% interest in Bonny Limited to a third party in exchange for ₦6million.

17. What is the value of the remaining interest of Kolobo Plc in Bonny Limited?

18. Determine the total value of Kolobo Plc after the disposal of 50% of its controlling interest in Bonny Limited (as provided)

19. The TWO fields in each record of files used in the purchase ledger subsystem in a computer environment are……………………….and……………………………

20. The contractual agreement between an owner and another party which gives the right to use an asset for an agreed period of time in return for a consideration is…………………………

SECTION B: ATTEMPT QUESTION ONE AND ANY OTHER THREE QUESTIONS (60 Marks)

QUESTION 1

CASE STUDY

Clean Bill Bank Plc. is a popular bank in Nigeria with its head office in Abuja and several branch networks in Lagos and other major cities. The bank is quoted on Nigerian Stock Exchange and the current market price is ₦12 per share. Chief Haroon Mallam, a Chartered Secretary and the Chief Executive Officer of Clean Bill Bank Plc. has 51% equity interests in the bank. Dr. Faaji Collins is the Deputy Managing Director. The bank currently has eight other Executive Directors. Alhaji Yahya Sullaimon is the Head of Credit and Risk Department and Mr. Kudira Alaye is the Company Secretary. The equity interests of the Head of Credit and Risk Department and the Company's Secretary are 10% each.

Chief Haroon Mallam has served 20 years in Clean Bill Bank Plc. and Bako Bank Plc. as CEO; out of which fifteen (15) years had been spent in Clean Bill Bank Plc. Dr. Faaji Collins has been the deputy of the Managing Director over the past twelve (12) years.

Recently, the Central Bank of Nigeria Governor, Mr. Jelee Mohammed delivered a lecture entitled "Bank credit exposure and long term survival". All the banks' Chief Executive Officers and key directors were in attendance. During the seminar, the CBN Governor highlighted several possible going concern problems which banks are encountering today in Nigeria. The summary of the lecture delivered by the CBN Governor is:

(a) Directors' exposure and other related parties with respect to transactions relating to banks' credit should not be above 5% of most banks' equity.

(b) The CEO of a bank cannot serve in that capacity for more than 10 years.

(c) Serving directors of CBN or NDIC are not eligible to serve as directors in a bank but this is not so in most banks.

(d) Credits to Government at all tiers and other Government agencies cannot exceed 10% of the credit portfolio.

(e) Credit exposure to any customer cannot exceed 10% of the shareholders' funds of the bank. Also, the total aggregate exposure cannot exceed eight times the shareholders' funds.

(f) Banks' approved auditors are only eligible for appointment for a ten-year period from the date of first appointment.

(g) Credit concentration policies should be approved by the board in a transparent manner in credit meetings.

(h) A single obligor exposure cannot be more than 2% of the shareholders' funds of the bank.

(i) Minimum capital adequacy ratio of 10% and 5% of a bank capital must be paid up capital and adequate provisions must be made for non-performing loans.

(j) Bank's report must be sent to the CBN within four months after the bank year end.

(k) Banks exposure to capital market must be within a tolerable limit.

After the CBN's Governor's parley with the top shots of banks, the board of directors of Clean Bill Plc. met and re-evaluated all major decisions that had been taken so far and particularly those that were not in tandem with the CBN positions, for example, the decision to purchase aircraft for directors. However, at the meeting, Dr. Faaji Collins gave the board assurances that he will use his influence at the CBN to ensure that the bank is not affected adversely. The summarised financial statements of Clean Bill Bank Plc. for the year ended 31 December, 2011 and 2010 are as follows:

Statement of financial position as at:	2011	2010
	₦'000	₦'000
Cash and balances with the CBN	200,000	150,000
Loans and advances	900,000	200,000
Other short term assets	20,000	20,000
Interest receivable	600,000	150,000
	100,000	100,000
Treasury bills		
Investment in quoted companies	550,000	550,000
Property, plant & equipment (PPE)	2,000,000	200,000
Land and buildings	1,000,000	1,200,000
	5,370,000	2,570,000
Capital and liabilities:		
Ordinary share capital of 50k each	1,000,000	1,000,000
Total Reserves	2,000,000	200,000
Deposit and savings A/C	870,000	470,000
15% debentures	500,000	500,000
Debenture interest	150,000	275,000
Taxation	50,000	25,000
Proposed dividends	800,000	100,000
	5,370,000	2,570,000

Extract from the Statement of Comprehensive Income for the year ended.

	2011	2010
	₦'000	₦'000
Gross Interest earnings	10,000,000	4,000,000
Interest expenses	4,000,000	2,000,000
Net interest earnings	6,000,000	2,000,000
Administrative cost	(3,600,000)	(1,600,00)
Finance cost: Interest payable	(75,000)	(75,000)
Profit before tax	2,325,000	325,000
Taxation	25,000	25,000
Dividend	700,000	100,000
Transfer to reserve	1,600,000	200,000

Notes to the financial statements:

1. NON-CURRENT ASSETS

	₦'000	₦'000
Property, plant and equipment (PPE)	200,000	200,000
Directors Aircraft	1,800,000	-
Total Value	2,000,000	200,000

2. INVESTMENT

Quoted Investment:	Cost/Share	Market Value/Share Year 2011	Historical Cost ₦'000
XYZ Plc	₦40	₦10	100,000
ABC Plc	₦25	₦2	200,000
GOJE Plc	₦30	₦1.50	250,000
			550,000

3. SUMMARIES OF LOANS PORTFOLIO OF CLEAN BILL PLC AS PERCENTAGE OF TOTAL LOAN:

	2011	2010
	(%)	(%)

Chief Mrs. Mallam Kuburat	25	21
Mr. Mallam Malik	20	18
Mrs. Fatimah Collins	15	12
Mr. Alaye Johnson	15	14
Corporate Customers	15	20
Individual Customers	10	15
	100	100

4. ANALYSIS OF TOTAL PERFORMACES OF LOAN PORTFOLIO OF CLEAN BILL BANK PLC. IN RELATION TO TOTAL LOAN AND ADVANCES IN STATEMENT OF FINANCIAL POSITION

	2011	2010
400 days	60%	40%
200 days	25%	30%
190 days	10%	20%
100 days	5%	10%

5. Total loan provisions included in the administrative expenses were ₦200 million and ₦100 million for 2011 and 2010 respectively.

6. The ordinary share capital consists of 40% paid up capital of 50k each and the bank auditor was appointed in 1990.

7. Authorised share capital is ₦500 billion of 50k each.

Required:

(a) Based on the information available in this case, identify TWO corporate governance issues in Clean Bill Bank Plc. (2 Marks)

In the bank's Income Statement, certain items were wrongly accrued for and not incompliance with IAS. State these items and pass the necessary journal entries to correct the illegal accrual. (1 Mark)

(b) (i) Determine the bank's exposure to the capital market risk (3 Marks)

(ii) Give the journal entries to correct Clean Bill Bank Plc. exposure to capital market (2 Marks)

(c) (i) Calculate the under provisions in year 2011 for bad and doubtful loan in the account of the bank (5 Marks)

(ii) Classify the loan portfolio of Clean Bill Bank Plc in accordance with BOFIA CAP B3 LFN 2004 (2 Marks)

(Total 15 Marks)

QUESTION 2

Agbedele Farms Limited has the following information in its records for the year ended 31 January 2012.

	Millet and Cassava	Yam Tubers	Cowpea	Potatoes
	₦'000	₦'000	₦'000	₦'000
Sales	200	300	750	250
Purchases	75	150	300	80
Subsidies	40	80	60	60
Own consumption	45	40	75	20
Opening Inventory	40	40	70	-
Closing Inventory	60	110	300	60

The farm expenses for the period 1 February 2011 to 30 April 2012 are as follows:

	₦
Casual labour	18,000
Regular workers	30,000
Land preparation and clearing costs	80,000
Hire of tractors	60,000

The farm's non- current assets for the year ended 31 January 2012 were as follows:

	₦
Farm's irrigation at cost	800,000
Farm's implement and equipment	400,000

Additional Information:

(i) Farm's irrigation costs are to be written off over 10 years
(ii) Farm's implement and equipment were purchased on 31 April 2011 and these are to be depreciated at 20% per annum.

Required:

(a) Prepare Agbedele Farms Limited's gross output and income statement for the year ended 31 January 2012. (12 Marks)

(b) In accordance with IAS 41 on Agriculture, you are required to define the following terms:

(i) Biological assets (1 Mark)
(ii) Biological transformation (1 Mark)
(iii) Harvest (1 Mark)
(Total 15 Marks)

QUESTION 3

The statement of comprehensive income and financial position of New Date Assurance Plc. as at 31 December 2011 are as follows:

NEW DATE ASSURANCE PLC

Statement of Comprehensive Income for the year ended 31 December 2011

	₦'000
Underwriting profits	376,258
Investment income	582,510
Other income	6,025
Profit before taxation	964,793
Taxation	(102,707)
Profit after taxation	862,086
Transfer to contingency reserve	(196,695)
	665,391
	(275,000)
Reserve for Bonus Issue	
Dividend paid	(375,000)
Retained profit for the year	15,391

Statement of Financial Position as at 31 December 2011

	2011	2010
	₦'000	₦'000
Cash and bank balances	187,365	284,989
Short-term investments	1,530,243	1,130,222
Amount due from Agents and other receivables	2,189,594	2,193,176
Loan to policy holders	69,563	85,795
Long-term investments	3,787,356	3,083,914
Statutory deposits	262,500	262,500
Non-current assets	795,655	708,004
	8,822,276	7,748,600
Less: Liabilities		
Trade payables	1,392,253	1,455,509
Insurance funds	3,795,573	3,253,403
Taxation	196,306	163,637
Total assets	3,438,144	2,876,051

Capital and Reserves

Called-up share capital	2,201,225	2,026,225
Share premium account	82,454	57,454
Capital reserve	300,000	300,000
Contingency reserve	488,668	291,973
Reserve for bonus issue	275,000	125,000
General reserve	90,797	75,399
	3,438,144	2,876,051

The following additional information is relevant:

1.

	₦'000
Non-current assets cost at 1/1/2011	1,382,714
Cost at 31/12/2011	1,685,598
Accumulated depreciation at 1/1/2011	674,702
Accumulated depreciation at 31/12/2011	889,942

2. An item of non-current-assets which cost ₦27,125,000 and had been fully depreciated was sold during the year for ₦6,025,000.

Trade payables and accruals are made up of	₦'000
Re-insurance payables	735,812
Commission payables	38,198
Obligations under finance lease	37,060
Dividend payable	375,000
Accruals	164,706
Other payables	41,478
	1,392,254

You are required to prepare the Cash Flow Statement for the year ended 31 December 2011.

Show all workings. (15 Marks)

QUESTION 4

Kimbay Plc., an entity with the head office in Abuja, Federal Capital Territory of Nigeria acquired 70% of the share capital of Kantool on 1 January 2011, a company based in Japan for 6,900,000 Yen. The retained earnings on this date was 4,500,000 Yen. The fair value of the identifiable net assets of the company was 12,375,000 Yen and the net asset relates to items of property plant and equipment. Similarly, the fair value of the non-controlling Interest (NCI) in Kantool Plc as at 1 January, 2011 was 6,250,000 Yen. It is the policy of Kimbay Plc to use the "full goodwill method" in the preparation of the group's financial statements. Kantool Plc's profit for the year ended 31 December 2011 was 2,000,000 Yen. The acquisition on 1 January 2011 was done in Japan when the following exchange rates were in force:

	Yen to Naira
1/1/2011	6
31/12/2011	5

The average rate for the year ended 31 December 2011 was 5.5 Yen to ₦1.

KANTOOL PLC

Statement of Financial Position as at 31 December 2011.

	Yen (000)
Assets:	
Non-Current Assets	9,500
Financial Assets	1,250
	10,750
Current Assets	8,250
	19,000
Equity and Liabilities	
Ordinary share capital	5,000
Retained earnings	7,500
	12,500
Non-current liabilities	4,000
Current liabilities	2,500

	6,500
Total equity and liabilities	19,000

You are required to:

(a) Translate the Statement of Financial Position of Kantool Plc. as at 31 December 2011 (5 Marks)

(b) Calculate Goodwill measured in "full cost" and any gain/loss arising on translation of the goodwill as at 31 December 2011(5 Marks)

(c) Calculate the exchange difference arising from the translation of Kantool Plc's net assets. (5 Marks)

(Total 15 Marks)

QUESTION 5

CANDY NIGERIA PLC

As the tenacity of various regulatory bodies persists in pursuance of complete conformity and standardisation, in line with the new Transformation Agenda of the Federal Government of Nigeria, Chief Abanikanda, The Managing Director of Candy Nigeria Plc, on 1 July 2010, intended to raise the Issued Share Capital of the company through public offer, to meet up with the new challenges. The authorised share capital being ₦10 million as at that date.

DR CR

	₦'000	₦'000
Land and Buildings at cost	1,250	–
Plant and Machinery at cost	980	–
Accumulated depreciation on Plant and Machinery at 30/6/09	–	400
Depreciation on Machinery	80	–
Furniture, tools and equipment at cost	380	–
Accumulated depreciation on furniture at 30/6/09	–	90
Receivables and payables	475	360
Inventories at 30/6/09	452	–
Sales	–	2,900
Purchases	1,700	–
Share Premium Account	–	120
Advertising	65	–
Deferred Taxation	–	180
Salaries	400	–
Rent	120	–
Income Statement balance at 30/6/09	–	260
Factory Power	95	–
Trade investment at cost	240	–
Electricity	35	–
Stationery	68	–
Dividend received (net)	–	20
Interim dividend paid on 15/4/09	60	–
Other administrative expenses	70	–
Disposal of Furniture	–	70
Ordinary shares of ₦1.00 each	–	2,000
12% Preference shares of ₦2.00 each	–	500
Cash and Bank balances	430	–
	6,900	6,900

The following information is provided:

Inventory on 30th June 2010 were valued at costs at ₦414,000.
The company tax rate was 35%.

The power supply to the company had been epileptic in recent times, culminating in high cost of production, due to high cost of maintaining the old power generating set.

The company, consequently approached Jubal Power Generating Company which has offered to enter into a Hire Purchase Agreement with Candy Plc, under the following terms:

i. Cost of the generating set, ₦7million
ii. Initial deposit required, is 20% of cost
iii. Tenure of agreement 5 years with ₦1.35million annual instalments
iv. The hire purchase interest is at 30%

To finance the acquisition of the power generating set, Chief Abanikanda approached the Operations Manager of Allwell Bank Limited, who requested for a three-year cashflow forecasts to execute the funding.

You are required to:

(a) Compute the Net Profit after Tax of Candy Plc for the year ended 30 June 2010. (4 Marks)

(b) Advise Chief Abanikanda on matters or provisions relating to increase in paid-up share capital by companies as prescribed by:

i. Companies and Allied Matters Act (CAMA) CAP C20, LFN 2004, and
ii. The Securities and Exchange Commission (SEC). (2 Marks)

(c) i. Compute the Hire Purchase Interest on the generating set using the sum-of-digits and straight line methods.

ii. What is the main demerit of the sum-of digits method? How would you overcome this problem? (6 Marks)

(d) i. List the THREE classes of cashflow statement in accordance with IAS 7. (1 Mark)

ii. State any FOUR uses of a cashflow statement as stipulated by IAS 7. (2 Marks)

(Total 15 Marks)

QUESTION 6

Alpha Plc., is a parent with subsidiaries that have diversified interests. Alpha Plc's board of directors is interested in the group acquiring a subsidiary in the food processing industry. Two companies Wascon Limited and Lobinton Limited have been identified for potential acquisitions. Summaries of these companies' accounts are shown below:

INCOME STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2009:

	WASCON LIMITED	LOBINTON LIMITED
	₦	₦
Turnover	1,990,000,000	1,120,000,000
Cost of goods sold:		
Opening inventory	300,000,000	290,000,000
Materials	510,000,000	272,000,000
Labour	320,000,000	250,000,000
Factory overheads	410,000,000	222,000,000
Depreciation	90,000,000	40,000,000
Closing inventory	(310,000,000)	(280,000,000)
	1,320,000,000	794,000,000
Gross Profit	670,000,000	326,000,000
Selling and Administration		
Expenses	(248,000,000)	(150,000,000)
Interest	(70,000,000)	(20,000,000)
Profit before tax	352,000,000	156,000,000
Taxation	(130,000,000)	(50,000,000)
Profit for the year	222,000,000	106,000,000

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2009

	WASCON		LOBINTON	
	₦	₦	₦	₦
Non-current		1,530,000,000		820,000,000

assets				
Current Assets:				
Inventory	310,000,000		280,000,000	
Accounts receivable	340,000,000		790,000,000	
Bank	100,000,000	750,000,000	90,000,000	1,160,000,000
Total Assets		2,280,000,000		1,980,000,000
Current Liabilities				
Trade accounts payable	470,000,000		600,000,000	
Others	260,000,000		250,000,000	
	730,000,000		850,000,000	
Non-current Liabilities				
Loan notes	440,000,000		140,000,000	
Total Liabilities		1,170,000,000		990,000,000
Net Assets		1,110,000,000		990,000,000
Equities attributable to the owners of the business				
Share capital		900,000,000		880,000,000
Retained Profits		210,000,000		110,000,000
		1,110,000,000		990,000,000

You are required to prepare a report to the board of Alpha Plc assessing the financial performance and position of the two companies. Your report should be prepared in the context of Alpha Plc's interests in these two companies and should be illustrated with the following accounting ratios:

(a) Return on capital employed

(b) Assets utilization ratios (i) Total assets turnover (ii) Non-current assets turnover (iii) working capital turnover

(c) Profitability ratios (i) Gross profit percentage (ii) Profit before taxation and interest as percentage of turnover

(d) Liquidity ratios (i) Current ratio (ii) Acid test or quick asset ratio (iii) Accounts receivable in weeks

(e) Capital structure (i) Gearing ratio (ii) Proprietary ratio

You should state any assumptions you make as well as any limitation of your analysis

(15 Marks)

SOLUTIONS TO SECTION A

PART 1 – MULTIPLE CHOICE QUESTIONS

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

14. C
15. C
16. B
17. E
18. D
19. C
20. B

TUTORIALS

3. $\frac{\text{Shareholders fund}}{\text{Total Tangible Assets}} \times 100 = \frac{(13,460 + 1320)}{(12,500 + 1,080 + 3,029)} = \frac{14780}{16609} = 89\%$

4. Quick Assets Ratio:

$\frac{\text{Current Asset – Inventory}}{\text{Current liability}} = \frac{3,029}{1,829}$ 1.66:1

5. $\frac{\text{Number of Ordinary Shares}}{\text{Total Number of Ref. shares and ordinary shares}} \times \text{Distribution sum}$

$= \frac{3,750,000}{6,000,000} \times$ ₦3,825,000 = ₦2,390,625

6.

Container with customs b/f		133,600
Charge out		217,100
		350,700
Less:		
Returned	158,650	
Returnable	116,900	275,550

	Retained		75,150
			₦
10.	Basic salary		15,000
	Housing Allowance		8,500
	Transport Allowance	7,500	
			31,000
	Pension at 7.5%		2,325

13. (20% X 28.5m) = ₦5.7m

14. (₦24m – 18m) + ₦48m = ₦54m

15. $^{3}/_{15}$ x 72,000 = ₦14,400

17. ₦12,000,000 + ₦10,500,000 = ₦22,500,000

18. (₦12,000,000 + ₦10,500,000) – (₦7,500,000 + ₦3,000,000) = ₦12,000,000

EXAMINERS'REPORT

The questions test all sections of the syllabus and candidates' performance was good.

PART II SECTION A

SHORT ANSWER QUESTIONS

1. Receiver, Liquidator, Debentures Holders, Members/Shareholders, Creditors
2. ₦4 million
3. ₦300,000

4. Pre-acquisition Reserves
5. Associate or Related Company
6. ₦540,000
7. Financial Instruments
8. Permanent and Timing/or Temporary difference
9. Back-up Procedure
10. Gearing Ratio/Debt to Equity ratio/Financial leverage
11. Co-operative Bye-laws
12. Living Plants; Animals
13. Fixed Interest Cover, Proprietary ratio, Leverage/Gearing ratio
14. Basis of Conclusion
15. ₦45,600
16. (i) Determination of the existence of animal that graze
    (ii) Determination of the actual number of livestock at hand
    (iii) Identification of their various stages of development
17. ₦4.25m
18. ₦4.25m
19. Primary; secondary
20. Lease or leasing

TUTORIALS

2. ₦1,000,000 + (₦750,000 X 4 yrs) = ₦4m

3. $\frac{\text{₦}4{,}000{,}000 - 2{,}800{,}000}{4}$ = ₦300,000

6. $\frac{20}{120}$ x ₦3,240,000 = ₦540,000

120

15. ₦160,000 + (₦160,00 x 4) - ₦754,400 = ₦45,600

17. $^{4.25}/_{10}$x ₦10m = ₦4.25m

18. 85% x 10m = ₦4.25

2

EXAMINERS' REPORT

The questions cover all sections of the syllabus. Candidates' performance was above average.

However, the commonest pitfall was the inability of most of them to solve computational questions testing basic accounting principles.

Candidates are advised to practise past questions making use of the Institute's pathfinder for better results.

SOLUTION TO SECTION B

QUESTION 1 – CASE STUDY – CLEAN BILL BANK PLC

(a) Corporate governance issues in the bank

(i) The Chief Executive Officer of a bank cannot serve in that capacity for more than 10 years. Chief Haroon Mallam has served for more than ten years in violation of this requirement.

(ii) Banks' approved auditors are only eligible to serve for not more than a ten-year period from the date of first appointment but the bank's auditors were appointed since 1990 which is more than 10 years.

(iii) Over concentration of equity shares of the bank in a single and influential individual. Chief Haroon Mallam alone has 51% equity interest. Other Directors also have substantial shares.

(iv) Dr. Faaji Collins did not demonstrate that he is an individual of proven integrity because of his comment that he will use his influence at the CBN to ensure that the bank is not affected adversely. This is unethical.

(v) The loan portfolio of the bank is concentrated in the hands of the related parties. 100% of the loans granted to the directors were non performing for more than one year hence they should cease to be on the board of the bank.

(vi) Expenditure on the purchase of aircraft for the directors is wasteful. They have placed their personal lifestyle and interest higher and above the survival of the bank.

(b) Wrongly accrued items

The items affected are the gross earnings of ₦10 billion in 2011, ₦4 billion in and dividend of ₦700 million.

(i) The related interest income should not have been recognized in the income statement since the loans and advances were non-performing as required by the IAS.

Journal/Accounting entries:-

Dr. Interest Income account
Cr. Interest in suspense account
(with the amount of interest on non-performing loan credited to interest income account)

(ii) Dividend payable: Under IAS 34, Contingent Liabilities provisions can only be made when:

- An entity is having a present obligation (legal or constructive) arising from a past obligating event;
- It is probable that outflow of resources embodying economic benefit will be required to settle the obligation; and
- Amount of the obligation can be estimated with sufficient reliability.

In the case of dividend, obligating event is dividend declaration at the AGM which must be held after the reporting date before dividend can be recognized as a liability.

Accounting entries

Dr. Dividend payable account
Cr. Dividend account (income statement with the ₦700 million)

Amount of dividend proposed by the directors as at reporting date but before AGM can be disclosed in the note to the financial statements.

(c) Capital market risk

(i) The bank's exposure to the capital market risk is calculated thus:

Investment in XYZ Plc	₦100 million
Investment in ABC Plc	₦200 million
Investment in Goje Plc	₦250 million
	₦550 million

(ii) Accounting entries

Dr. Provision for Diminution in Investment A/c (with ₦496,500,000)
Cr. Investment in quoted companies (provision) account (with ₦496,500)
Being provision for diminution in value of investment.

Workings

Investee Company	Historical cost of investment	Current market value	Impairment loss	Carrying amount
	₦'000	₦'000	₦'000	₦'000
XYZ Plc	100,000	25,000	75,000	100,000
ABC Plc	200,000	16,000	184,000	16,000
Goje Plc	250,000	12,500	237,500	12,500
Total	550,000		496,500	128,500

(d) (i) Calculation of under provision for bad and doubtful loans in 2011.

Provision for bad and doubtful loans	₦'000
Balance c/f (see calculation below)	936,000

Deduct assumed balance b/f	100,000
Chargeable increase for the year	836,000
Deduct actual amount charged (given)	200,000
Therefore, under provision =	636,000

Note:

Carrying amount of the loans & advances – 2011	900,000
Add back: provisions in 2010 & 2011 (₦100 + ₦200)	300,000
Therefore, gross amount as at 31/12/2011	1,200,000

S/No	Age Bracket	% Outstanding	Gross Amount	Classification	Specific Provision % required	Amount of Provision Required
			₦'000			₦'000
i.	400 days	60%	720,000	Lost	100%	
ii.	200 days	25%	300,000	Doubtful	50%	
iii.	190 days	10%	120,000	Doubtful	50%	
iv.	100 days	5%	60,000	Sub-standard	10%	
		100%	1,200,000		Bal. c/f	936,000

(iii) Classification of the loans and advances in accordance with BOFIA CAP B3 LFN 2004

S/No	Age Bracket	Classification
i.	400 days	Non-performing lost
ii.	200 days	Non-performing Doubtful
iii.	190 days	Non-performing Doubtful
iv.	100 days	Non-performing Sub-standard

EXAMINERS'REPORT

PATHFINDER

The question tests candidates understanding of accounting for banks and other financial institutions with particular emphasis on application of prudential guidelines and corporate governance issues.

The question was attempted by all candidates and performance was poor.

The pitfalls identified are as follows:

- ❖ Inability of the candidates to ascertain items that were wrongly accrued for by the bank and not in compliance with IAS provisions.
- ❖ Majority of the candidates could not calculate correctly the under provisions for doubtful debts made by the bank in year 2011.
- ❖ Some candidates showed complete lack of understanding of bank's exposure to capital market risks.

Candidates are advised to read financial journals on prudential requirements for banks and other financial institutions while also ensuring that they cover the syllabus adequately when preparing for the institute's examinations.

QUESTION 2

AGBEDELE FARMS LTD

	Millet and Cassava	Yam Tubers	Beans	Potatoes	Total
	₦'000	₦'000	₦'000	₦'000	₦'000
Sales:	200	300	750	250	1,500
Add: Subsidies	40	80	60	60	240
Own Consumption	45	40	75	20	180
	285	420	885	330	1920

Cost of Sales:

Opening Inventory	40	40	70	-	150
Add: Purchases	75	150	300	85	605
Closing Inventory	(60)	(110)	(305)	(60)	(530)
	55	80	70	20	225
Gross Output Value	230	340	815	310	1,695
Less Expenses:					
Casual labour					14.40
Regular workers					24.00
Land preparation					64.00
Hire of tractors					48.00
Depreciation: irrigation					80.00
Depreciation farms equipment					60.00
					290.40
					1,404.60

Workings:

Casual labour $^{12}/_{15}$ x ₦18,000 = ₦14,400
Regular workers $^{12}/_{15}$ x ₦30,000 = ₦24,000
Land preparation $^{12}/_{15}$ x ₦80,000 = ₦64,000
Hire of tractors $^{12}/_{15}$x ₦60,000 = ₦48,000

Depreciation:

Irrigation cost $\frac{₦800,000}{10}$

Farm's equipment 20% x 400,000 x $^{9}/_{12}$ = ₦80,000

b(i) Biological assets are living plants and animals.

(ii) Biological transformation relates to the process of growth and degeneration that can cause changes of a quantitative or qualitative nature in a biological asset.

(iii) Harvest is the detachment of produce from a biological asset or cessation of a biological asset's life process.

EXAMINERS'REPORT

This is a question on farmers' accounts which tests candidates knowledge of the preparation of Income Statement with adequate disclosure of gross output. The part 'b' of the question also tests candidates understanding of certain basic terminologies in accordance with provision of IAS 41 on Agriculture.

About 90% of the candidates attempted the question and performance was above average.

However, some candidates lack the knowledge of presenting Income Statement with adequate disclosure of the Gross Output while others could not define the Agricultural Terminologies in accordance with the provisions of IAS 41.

Candidates are advised to learn how to present financial statements in accordance with provisions of relevant standards. In addition, they should also farmiliarize themselves with the provisions of International Accounting Standards (IAS) and International Financial Reporting Standards for better performance in future.

QUESTION 3

NEW DATE ASSURANCE PLC

Statement of cash flows for the year ended 31 December 2011

Operating Activities:	₦'000	₦'000
Profit before tax		964,793
Adjustments:		
Profit on disposal of Non-Current Assets	(6,025)	
Investment income	(582,510)	
Depreciation charges (Wk 2)	242,365	346,170
		618,623
Changes in operating capital:		
Increase in insurance fund	542,170	

Decrease in Trade Payables	(63,256)	
Decrease in loan to policy holders	16,232	
Decrease in amount from agents and other receivables	3,582	
		498,728
Tax paid (wk 5)		(70, 038)
Net cash in-flow from operating activities		1,047,313
Investing Activities		
Proceed, from disposal of non-current assets	6,025	
Investment income received	582,510	
Purchase of Non-current assets (wk 1)	(330,009)	
Purchase of Investments (wk 3)	(703, 442)	
Net cash out-flow from investing activities		(444,916)
Financing Activities		
Dividend paid (wk 6)	(375,000)	
Issue of shares (wk 4)	75,000	
Net Cash out-Flow From Financing Activities		(300,000)
Increase/decrease in cash & cash equivalent		302,397
Cash and cash equivalent at the start		1,415,211
Cash and cash equivalent at the end		1,717,608
Represented by:		
Cash and Bank Balances		187,365
Short term investments		1,530,243
		1,717,608

Workings:

Wk 1 Non-Currents Assets Account

	₦		₦
Bal b/d	1,382,714	Disposal	27,125
Cash	330,009	Bal c/d	1,685,598
	1,712,723	Balc/d	1,712,723

Wk 2 Provision for Depreciation Account

	₦		₦
Disposal	27,125	Bal b/d	674,702
Bal c/d	8,892	P & L A/c	242,365
	917,067		917,067

Wk 3 Investment Account

	₦		₦
Bal b/d	3,083,914		
Cash	703,442	Bal c/d	3,787,356
	3,787,356		3,787,356

Wk 4 Ordinary Shares Account

	₦		₦
Share Premium	82,454	Bal b/d	2,026,225
Bal c/d	2,201,225	Share Premium	57,454
		Bonus Gross	125,000
		Cash	75,000
	2,283,679		2,283,679

Wk 5 Taxation account

	₦		₦
Cash	70,038	Bal b/d	163,637
Bal c/d	196,306	P & L account	102,707
	266,344		266,344

Wk 6 Dividend Account

	₦		₦
Cash	375,000	Bal b/d	375,000

Bal c/d	375,000	P & L Account	375,000
	750,000		750,000

EXAMINERS'REPORT

The question tests candidates' knowledge of the preparation of the cash flow statement of an Insurance company.

Few candidates attempted the question and performance was below average.

Candidates' commonest pitfalls were their inability to calculate correctly the figures that should be posted into the cashflow statement through the use of control accounts and also their failure to present the cashflow statements in accordance with the provisions of IAS 7.

Candidates are advised to pay attention to the preparation of final accounts that are published in Annual Reports of companies and also to familiarize themselves with the required disclosure and presentation requirements of the relevant accounting standards.

QUESTION 4

(a) TRANSLATION OF FINANCIAL POSITION OF KANTOOL PLC AS AT 31 DECEMBER2011

	YEN	YEN RATE	₦'000
Property Plants & Equipment	12,375	5	2,475
Financial Assets	1,250	5	250
Current Assets	8,250	5	1,650
	21,875		4,375

EQUITY & LIABILITY:

Share capital	5,000	6	833
Retained earnings	4,500	6	750
Post acquisition (Bal.)	3,000 (Bal. fig)		1,013

Other Equity:-

Fair Value	2,875	6	479
Non-current liabilities	4,000	5	800
Current liabilities	2,500	5	500
	21,875		4,375

Note: Fair value of property,
plant and equipment: = 12,375 Yen – 5,000 yen (equity)
– 4,500 Yen (pre-acquisition profit) = 2,875 Yen

(b)

	Yen '000	Rate	₦ '000
Cost of acquisition	6,900	6	1,150
Fair Value (NCI)	6,250	6	1,042
	13,150		2,192
Net Asset Acq.	12,375	6	(2,063)
	775	6	129

Gain: Goodwill	775 ÷ 5	₦155
Less Translation at ₦6		129
Exchange gain on translation		26

OR

Control interest of exchange gain: 70% x 26 = 18.2
Non-controlling interest: 30% x 26 = 7.8
26

(c) Exchange Rate difference of KANTOOL PLC NET ASSETS

			₦'000
Difference from translation of Net Assets:			
Opening rate: 12,375,000 Yen at 6			2,062.5
Closing rate: 12,375,000 Yen at 5			2,475.0
			412.5
Difference arising from translation of profit			
2000 Yen at 5.5	=	364	
2000 Yen at 5	=	400	36.0
			448.5

Exchange Rate credited as:		
70% of 448.5		314
Non-controlling interest 30% x 448.5	134.5	
	448.5	

EXAMINERS' REPORT

The question is on foreign subsidiaries and tests candidates understanding of the following:

- Translation of foreign subsidiary financial statement.
- Computation of Goodwill using full cost method from translation of subsidiary financial statement.

Few candidates attempted the question and performance was poor. The commonest pitfall noted on the part of the candidates were as follows:

- Using of inappropriate exchange rate to translate the financial statement
- Failure to reflect the effect of adjustment for the fair value of net assets of the company
- Inability of some candidates to calculate goodwill measured in "full cost"
- Inability to calculate the exchange difference arising from translation of net assets of the subsidiary.

It is obvious that most candidates lack the required knowledge and understanding of relevant Accounting Standards necessary to answer the question hence the poor performance.

Candidates are advised to pay more attention to group accounts as it relates to foreign subsidiaries and relevant International Accounting Standards for better performance in future.

QUESTION 5

(a) CANBY PLC

Computation of Profit after Tax

	₦'000	₦'000
Sales		2,900
Less: cost of sales		
Opening Inventory	452	
Purchases	1,700	
Cost of goods available for sale	2,152	
Less closing Inventory	(414)	(1,738)
Gross profit		1,162
Other Income-Dividend received (gross)		22
Profit on Disposal		70
		1,254
Less Expenses:		
Advertising	65	
Salaries	400	
Rent	120	
Depreciation on machinery	80	
Factory Power	95	
Electricity	35	
Stationery	68	
Other Admin Expenses	70	(933)
Profit Before Tax		321
Income tax @ 35%		(112)
Profit after tax		209

(b) i. - CAMA

- There should be a special resolution to increase the share capital
- Payments of the required stamp duty on the increased share capital.

- File the returns to Corporate Affairs Commission

ii. The Investment & Securities Acts (ISA) 1999 requires every security dealer to keep adequate records and account of its transactions from time to time.

(c) Computation of Hire Purchase Interest

i.

	₦'000
Cost of the generating set	7,000
Initial Deposit (20 % x ₦7m)	1,400
Add: Instalments (5 x 1.35)	6,750
Hire Purchase Price	8,150
Less: Cash Price	(7,000)
Hire purchase Interest	1,150

Straight line method

HP interest written off each year is $= \frac{1,150}{5}$

$= 230$

That is ₦230,000

ii. Sum of digit method HP interest attributed to each year

	Yr	Digital allocates	Workings	=	HP Int. ₦'000
	1	5	5/15 x 1150	=	383.33
	2	4	4/15 x 1150	=	306.67
	3	3	3/15 x 1150	=	230.00
	4	2	2/15 x 1150	=	153.00
	5	1	1/15 x 1150	=	77.00
		15			1,150

iii. The main demerit of sum of digit method is that the allocation of the hire purchase interest over the hire purchase periods may not reflect the systematic allocation of the hire purchase interest. In order to overcome this short coming, the actuarial method should be used.

(d) (i) In accordance with IAS 7, the cash flow statement can be classified into:
- Cash flow from operating activities
- Cash flow from investing activities
- Cash flow from financing activities

iii. FOUR uses of cash flow statement may include:

(a) Cash flow statement together with the income statement give an indication of the relationship between earnings and cash flows.
(b) It is used to determine liquidity position of an entity.
(c) It can be used to determined the ability of an entity to generate cash and cash equivalent.
(d) It eliminates the leads and gaps created by the allocation associated with accrued accounting.
(e) It can be used to determine the amount of external fund that will be required to finance a profitable project.

EXAMINER'S REPORT

The question tests candidates' knowledge of provisions of CAMA and Security & Exchange Commission (SEC), computation of the hire purchase interest, and cash flow statements.

Most candidates attempted the question and performance was below average.

Majority of the candidates could not calculate correctly the hire purchase interest using the sum of the digit method, while others could not give appropriate advice as regards increase in paid up share capital of the company, applying the provisions of the company law and SEC regulations.

Candidates are advised to cover all sections of the syllabus in order to enhance their performance in future.

QUESTION 6

To: The Board of Alpha Plc. Date: …………………..

From: ABC Chartered Accountants and Co.

SUBJECT: POTENTIAL ACQUISITION OF EITHER WASCON LTD. OR LOBINTON LTD AS A SUBSIDIARY OF THE ALPHA PLC

As instructed by you, we have investigated the financial performance of the two companies. From the computed ratios stated in the appendix, the financial performance and position of Wascon Limited is more impressive than that of Lobinton Ltd. for the period under review.

The profitability performance of the two companies as measured by ROCE reveals that Wascon Ltd. earns about 27% returns on its investment while Lobiton earns about 15% on its investment.

The outstanding performance of Wascon over Lobinto based on ROCE may be due to Wascon Ltd. better performance in asset turnover (working capital turnover) and profit margin.

The asset turnover ratio (based on total assets and non-current assets) of the two companies reveals that Lobinto Ltd is more efficient in the utilization of its asset to generate sales revenue. Though when capital employed is defined as working capital, Wascon Ltd. becomes efficient than Lobinton Ltd. The liquidity position of the two companies reveals that Lobiton Ltd. is better off when compared to Wascon Ltd. This implies that Lobiton Ltd. will be able to settle its short term obligations as at when due while Wascon Ltd. will only be able to settle about 60% of its short term obligation as at when due, when measured from the point of view of the acid test ratio.

The gearing of the two companies reveals that both companies are lowly geared. This implies that both of them finances most of their operation with owner's funds. However, but Wascon Ltd. is highly geared when compared to Lobinton Ltd. This shows that Lobinton Ltd. will be incurring a lower interest expenses as a result, and will have a larger proportion of its profit available for dividend distribution to his shareholders.

In conclusion, we will advise the investors (Alpha Plc) to invest in Wascon Ltd., as this will be more viable than investing in Lobinton Ltd.
Signed:
ABC Chartered Accountants & Co.

APPENDIX

		WASCON LIMITED	LOBINTON LIMITED
i.	Returned on capital employed	422,000,000 x 100	176,000,000 x 100
	= Profit before interest and tax x 100	1,500,000,000	1,130,000,000
	Capital employed	= 27.23%	= 15.6%
ii.	Assets Utilization Ratio		
	(a) Total Assets turnover		
	= Turnover	1,990,000,000	1,120,000,000
	Total Assets	2,280,000,000	1,980,000,000
		= 0.872	= 0.57
iii.	Non-Current Asset Turnover		
	= Turnover		
	Non-Current Assets		
		1,990,000,000	1,120,000,000
		1,530,000,000	820,000,000
		1.3	= 1.37
iv.	Working Capital Turnover		
	= Turnover		
	Working Capital		1,120,000,000
		1,990,000,000	310,000,000
		20,000,000	= 3.6
		= 99.5	
	Profitability Ratios	670,000,000 x	

		100	
	= Gross Profit x 100%	1,990,000,000	
	Turnover	= 33.6%	
			326,000,000
			1,120,000,000
			= 29.1%
	Profit before taxation and interest x Turnover	422,000,000 x 100 1,990,000,000	176,000,000 x 100 1,120,000,000
		= 21.2%	= 15.7%
iv.	Liquidity Ratios		
a.	Current Ratio = Current Assets	750,000,000	1,160,000,000
	Current Liabilities	730,000,000	850,000,000
		= 1.03:1	= 1.36:1
b.	Acid test or quick asset ratio		
	= Current assets – inventory	440,000,000	880,000,000 :1
	Current Liabilities	730,000,000	850,000,000
		= 0.6:1	= 1.04:1
c.	Accounts receivable weeks		
	=Trade accounts receivable x 52 wks	340,000,000 x 52	790,000,000 x 52
	Credit Sales 1	1,990,000,000	1,120,000,000
		= 9 weeks	= 36.7 wks
v(a)	Capital Structure		
	Gearing Ratio		
	= Long term borrowing x 100%	440,000,000 x 100%	140,000,000 x 100%
	Shareholders' funds	1,110,000,000	990,000,000
		39.6%	= 14.14%
		or	Or
		0.396:1	0.14:1
(b)	Proprietary Ratio		

	Shareholders funds	1,110,000,000	990,000,000
	Tangible assets	2,280,000,000	1,980,000,000
		= 0.49	= 0.50

EXAMINERS'REPORT

The question tests candidates understanding of accounting ratios and its applications.

Majority of the candidates attempted the questions and performance was above average.

Most candidates were able to calculate the accounting ratios correctly but some of them could not correctly interpret the ratios.

Ratio analysis and interpretation of financial statement is a regular feature of financial accounting paper, hence candidates are advised to place more emphasis on interpretation of financial statement.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION 1 – MAY 2012
INFORMATION TECHNOLOGY
Time Allowed – 3 hours

SECTION A: Attempt All Questions

PART I: MULTIPLE CHOICE QUESTIONS (20 Marks)

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

1. File Transfer Protocol (FTP) is a network protocol used to

   A. Exchange and manipulate files over a computer network
   B. Retrieve e-mail from a remote server
   C. Transmit e-mail across internet protocol
   D. Exchange structured information in the implementation of web

services in computer networks

E. Communicate data across a packet-switched internetwork

2. Software development life cycle refers to the process of

A. Developing a new information system or amending an existing one
B. Identifying IT products that are recent
C. Formulating a problem
D. Writing reports
E. Networking systems

3. The segregation of IT functions in an IT environment is termed

A. Internal administrative control
B. Internal administrative functions
C. Transaction
D. Responsibility
E. Functioning

4. The dedicated contingency facilities to create system availability are termed

A. Warm sites
B. Volatile sites
C. Hot sites
D. Dedicated sites
E. Frequently used sites

5. A standard set of rules and procedures for the control of communication in a network is known as

A. Topology
B. Protocol
C. Layer
D. Controller
E. Bridge

6. A process of planning, organising and managing resources to bring about the successful completion of specific project goals and objectives is known as

A. System maintenance
B. Project management

C. Project development
D. System development
E. System implementation

7. To say that semi-conductor memory is volatile means

A. It cannot store data
B. Stored data is lost when power supply is cut off
C. Data and information can be stored simultaneously
D. Electrical current is conducted rapidly
E. Data stored is retained when power supply is cut off

8. The general categories of threats in an information system environment EXCLUDE

A. Interruption
B. Identification
C. Interception
D. Modification
E. Fabrication

9. Primary storage media such as semi-conductor memory is called

A. Data warehouse
B. Direct access
C. Sequential access
D. Central processing unit
E. Read only memory

10. Which of the following is odd?

A. Magnetic stripe
B. Smart card
C. Digital camera
D. Magnetic ink character recognition
E. Voice response

11. Which of the following is NOT a characteristic of RAID?

A. Data can be recovered from back-up copies

B. Has a LASER record data for producing compact disk
C. Sharing of capacity through network server
D. Large capacities with high access speed
E. Fault tolerant capacity

12. Which of the following is NOT a disadvantage of computer network?

A. High cost of installation
B. Security
C. Server breakdown
D. Cables breakdown
E. Administrative time requirement

13. A direct computer to computer exchange of electronic information is known as

A. Electronic Message Transfer
B. Electronic File Transfer
C. Electronic Data Interchange
D. Electronic Mailing System
E. Electronic System Transfer

14. A set of equipment and facilities that share common communication media such as cables, MODEM, etc., in order to provide a service or services is called

A. Communications network
B. Computer network
C. Communications channels
D. Communications equipment
E. Communications control software

15. An automated or manual file that stores definitions of data elements and data characteristics such as usage, physical representation and ownership is known as

A. Data Management System
B. Database
C. Data Definition Language
D. Data Manipulation Language
E. Data Dictionary

16. "System Development cost can be divided into installation costs, operating costs and migration costs". Which of the following is an example of migration costs?

    A. Hardware/software cost
    B. Staff cost
    C. Delivery charges
    D. Staff training cost
    E. System maintenance cost

17. An information system that performs the recording and processing routine transactions generated through the occurrence of business activities is known as

    A. Transaction processing system
    B. Production support system
    C. Executive information system
    D. Decision support system
    E. Expert system

18. Which of the following is NOT a cause for the creation of a process?

    A. System initialisation
    B. Execution of process creation system call by running a process
    C. A user request to create a new process
    D. Privileged instruction
    E. Initiation of a batch job

19. The process of proving one's identity to a computer facility is known as
    A. Password
    B. Log-on
    C. Authentication
    D. Process identification
    E. Process description

20. The process of determining what types of activities are permitted is known as

    A. System auditability
    B. IT activity management
    C. Authorisation
    D. Information processing control
    E. Access control

PART II: SHORT ANSWER QUESTIONS (20 MARKS)

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

1. The TWO major types of software are …………… and………….

2. A collection of logically related data elements is known as…………………………

3. A software system which is specifically developed to fulfil a defined business requirement for a specific organisation is……………………………

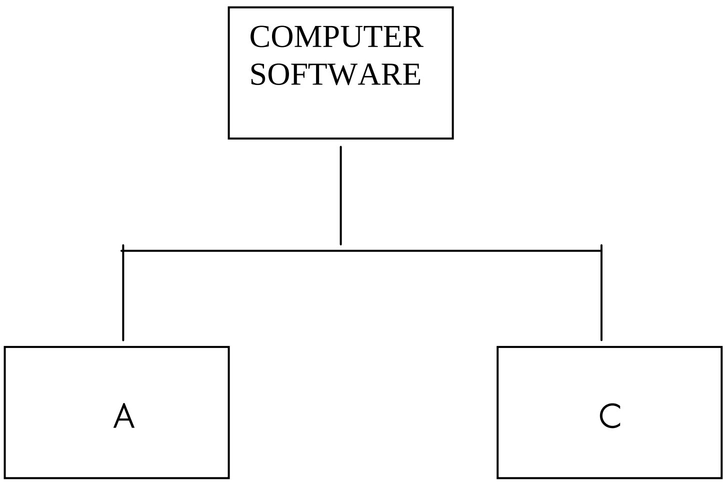
4. The scrambling or conversion of data prior to transmission to a secret code that masks the meaning of the data to unauthorised recipient is……………………………

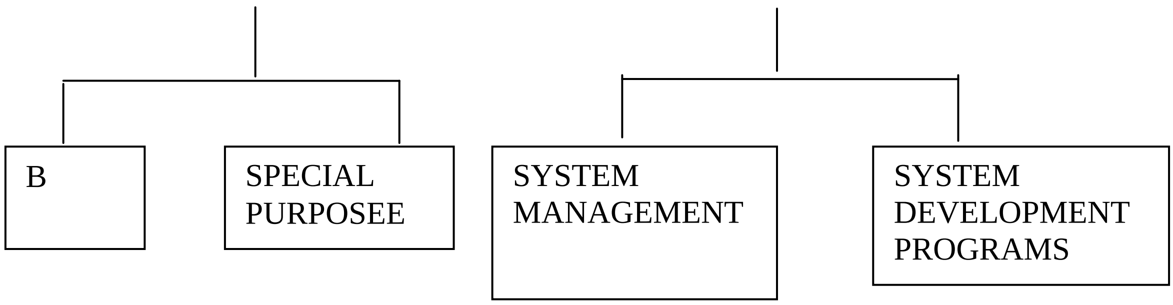
5. An internet-based device that connects networks that are completely dis-similar with respect to how they work and communicate is called……………………………

6. An information system that provides an innovative and automated approach to production processes is……………………………

7. Controls that are designed to prevent, detect or correct errors in transactions as they follow through various stages of a specific data processing program are…………………………

   The chart below shows an overview of computer software





Use the above chart to answer questions 8 and 9

8. A is …………………. software.

9. B is ………….. purpose.

10. The TWO categories of IT controls are described as IT General Controls (ITGC) and……………………………….

11. The main objectives of system security are confidentiality, integrity and…………

12. Reconciling the input control totals with the totals of items that have updated the file is……………………………….

13. A machine designed to operate on a restricted class of problems is known as…………….

14. What is the name given to a device that allows the segmentation of a large network into a smaller, more efficient network?

15. A method of identifying vulnerability and threats to information systems and assessing the possible damage to determine where to implement security safeguards is known as…………………………….

16. A system testing that creates a fictitious entity in a database to process test transactions simultaneously with live input is called…………………………

17. What is the name given to a set of databases stored on multiple computers that typically appears to application as a single database in which an application can simultaneously access and modify the data in several databases in a network?

18. The interception of all messages entering and leaving the network by effectively hiding the true network addresses is done through……………………………………

19. The process in which data attributes within a data model are organised to increase the cohesion of entity types is known as…………………………………

20. The quantifying of the characteristics of things like processes and products by determining what is to be measured, how it is measured, the unit of measurement and the source of the data is effected by ………………………………

SECTION B: ATTEMPT QUESTION ONE AND ANY OTHER THREE QUESTIONS (60 Marks)

QUESTION 1- CASE STUDY

JOGGLE BAY LIMITED

Joggle Bay Limited is a manufacturing company founded in 1995 by a private investor. In the last few years, the company experienced an expansion in its business.

There is need for the organization to meet the requirements of her esteemed customers. In a bid to make it more effective, efficient and maximize profit there is need to improve the current and future planned information technology infrastructure.

In view of this, the management of Joggle Bay Limited has decided to develop a new system that will meet the needs of the organization and the users' requirement.

The proposed system has been developed and tested to the satisfaction of the designers and users. The new system is ready for full implementation.

The paramount thing is that the management of Joggle Bay Limited does not have full confidence in the running of the new system. At the same time, it is anxious to know the benefits inherent in the operation without much hazard to the smooth running of the entire organization during the change over procedure.

As a Consultant, you are required to:

(a) Define change-over procedure. (1 Mark)

(b) Give and explain a change-over method that best suits the condition of this organization. (4 Marks)

(c) Enumerate TWO phases of Systems Development Life Cycle (SDLC) that do not include change over process/ procedure. (2 Marks)

(d) State FOUR advantages and FOUR disadvantages of your choice in (b) above. (8 Marks)

(Total 15 Marks)

QUESTION 2

Interfaces among hardware, software and communications channels in telecommunications networks have improved due to increased standards.

Required:

(a) What is a protocol? (2Marks)

(b) State any FOUR properties of a protocol. (4 Marks)

(c) List any FIVE protocols used in today's data communications. (5 Marks)

(d) Enumerate any FOUR layers of the seven-layer Open System Interconnection (OSI) reference model. (4 Marks)

(Total 15 Marks)

QUESTION 3

Computer Forensic is an emerging discipline that reveals hidden information that will better assist IT professionals in legal tussles.

Required:

(a) What is Forensic Investigation? (2 Marks)

(b) Explain briefly the following key elements of Forensic Investigation:
   (i) Identification of digital evidence
   (ii) Preservation of digital evidence
   (iii) Analysis of digital evidence
   (iv) Presentation of digital evidence (8 Marks)

(c) Enumerate THREE merits and TWO demerits of duplicating original evidence during Forensic Investigation. (5 Marks)

(Total 15 Marks)

QUESTION 4

(a) One popular approach to IT governance is COBIT (Control Objectives for Information and related Technology).

   (i) Explain what is meant by COBIT as an IT governance tool. (3 Marks)
   (ii) Enumerate FIVE COBIT components. (5 Marks)

(b) In order to prevent undue interference in one's affairs by other people, it is pertinent to maintain a level of privacy in terms of access to information.

   (i) What is information privacy? (2 Marks)
   (ii) Enumerate FIVE sources through which data privacy issues can arise. (5 Marks)

(Total 15 Marks)

QUESTION 5

Kingsway Research Company, Lagos, has just opened another office in Kano and will require exchanging large volumes of data online. It is expected that as the head of Information Technology (IT), you are to educate the firm on the process to achieve its objectives.

Required:

(a) Explain briefly the use of each of the following network equipment:

(i) Hub
(ii) Switch
(iii) Bridge
(iv) Gateway concentrator
(v) Router
(vi) Multiplexer/Multiplexor (6 Marks)

(b) Describe the operations of the following data transmission techniques in message transmission over the network, highlighting one likely advantage and one likely disadvantage of each type.

(i) Circuit switching
(ii) Packet switching (9 Marks)
(Total 15 Marks)

QUESTION 6

The Managing Director of Suitors Bank Plc is worried about securing their IT facilities that were recently deployed and requires more enlightenment.

Required:

(a) (i) What is IT Risk Assessment Strategy? (3 Marks)
(ii) Identify the risk element assets. (2 Marks)

(iii) List TWO factors to be considered while assessing the value of information and assets. (2 Marks)

(iv) List TWO reasons for determining the value of assets. (2 Marks)

(b) Define IT policy statement and state FOUR key actions that contribute to the success of a security policy. (6 Marks)
(Total 15 Marks)

SOLUTIONS TO SECTION A

PART I - MULTIPLE CHOICE QUESTIONS

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

EXAMINER'S REPORT

The questions test candidates' knowledge on the various aspects of the syllabus. Performance was good as over 60% of the candidates scored more than 50% of the mark allocated.

PART II – SHORT-ANSWER QUESTIONS

1. Application software and Systems software
2. Record
3. Bespoke /Costomised software
4. Encryption
5. Gateway
6. Production Support System
7. IT Application Controls
8. Application
9. General
10. IT Application Controls (ITAC)
11. Availability
12. Run Control Totals
13. Special Purpose Computer
14. Bridge
15. IT Risk Assessment
16. Integrated Test Facility (ITF)
17. Distributed Database
18. Proxy server
19. Data normalisation
20. Metrics

EXAMINER'S REPORT

The questions test candidates' knowledge of the various aspects of the syllabus. Performance was good as over 60% of the candidates scored more than 50% of the marks allocated.

SECTION B

QUESTION 1

(a) Change-over procedure is a conversion process from the use of a present system to the operation of a new system.

(b) Parallel running change-over method.
Parallel running describes a method where the organization continues operations with both the old and the new systems for some predetermined cycle. Within the cycle, the results from the two systems are cross-checked before confidence is placed on the new system. It is therefore a cautious, safe and less risky approach.

(c) (i) Problem definition
(ii) Feasibility study
(iii) System investigation
(iv) System Analysis
(v) System Design
(vi) System maintenance and review

(d) Advantages of parallel running

(i) When the two systems run concurrently, it creates opportunity for checking. During this period hidden defects and problems are resolved and the efficiency of the system is brought up to a standard of normal running.

(ii) A system that has been fully checked, corrected and perfected under actual operating conditions will be implemented

(iii) Failure of the new system will have less impact as normal processing can continue on the existing system.

(iv) User personnel will have the time to become completely familiar with the new system

(v) The output of both old and new systems will be available for comparison and evaluation.

Disadvantages of parallel running

(i) The overhead costs can be very high as almost a complete duplication of processing is required.

(ii) The need for more staff and resources to cope with the two systems concurrently makes parallel running an expensive system.

(iii) The duration of parallel run can vary considerably between systems.

(iv) The new and old organizational structures may be incomparable, thus foreclosing parallel running as a feasible option.

(v) The volume of work may be too large to be handled for two systems.

EXAMINER'S REPORT

The question tests candidates' understanding of methods of systems change-over and to specifically note the best type of change-over that can be used by the organization and to give advantages and disadvantages of the choice made.

The question demands for the definition of change-over procedure, the most appropriate change-over technique to be adopted; to give advantages and disadvantages of using the above, as well as enumerating phases of SDLC.

Over 60% of the candidates understood the question, but the performance was poor. Major pitfall was in the wrong choice of change-over method which contributed significantly in their not providing the proper solution to the (d) part of the question.

Candidates are advised to devote more time to understanding systems development concepts.

QUESTION 2

(a) A protocol is a convention or standard that controls or enables the connection, communication, and data transfer between computing endpoints

(b) Properties of a protocol

(i) Detection of the underlying physical connection, or the existence of the other endpoints

(ii) How to start and end messages
(iii) How to format a message
(iv) What to do with corrupted or improperly formatted message
(v) Termination of the session and or connection

(c) Common Protocols

(i) Internet Protocol (IP)
(ii) User Datagram Protocol (UDP)
(iii) Transmission Control Protocol (TCP)
(iv) Dynamic Host Configuration protocol (DHCP)
(v) Hypertext Transfer Protocol (HTTP)
(vi) File Transfer Protocol (FTP)
(vii) Telnet Remote Protocol (Telnet)
(viii) Secure Shell Remote Protocol
(ix) Post Office Protocol (POF3)
(x) Simple Mail Transfer Protocol (SMTP)
(xi) Internet Message Access Protocol (IMAP)
(xii) Simple Object Access Protocol (SOAP)
(xiii) Wireless Application Protocol (WAP)
(xiv) Voice Over Internet Protocol (VOIP)

(d) Layers of OSI model are:

i. Physical
ii. Data Link
iii. Network
iv. Transport
v. Session
vi. Presentation
vii. Application

EXAMINER'S REPORT

The question tests candidates' knowledge of protocols, their properties and types commonly available for information communication.

Candidates were expected to explain protocol, state its properties and list various examples. They were also to be familiar with the names of sessions of the 7-layer OSI.

The question was well understood by the candidates because performance was good as over 50% scored above 50% of the marks allocated.

QUESTION 3

(a) Forensic Investigation is the use of computer science with elements of law to collect and analyse data (using computer systems, networks, wireless communications and storage devices) in such a way to be admissible as evidence in a court of law.

ALTERNATIVELY

It is the process of identifying, preserving, analyzing and presenting digital evidence in a manner that is legally acceptable.

(b) (i) Identification: First step in Forensic process which deals with knowing what evidence is present, where it is stored and how it is stored is vital to determining which processes are to be employed to facilitate its recovery. Forensic Investigation is not limited to computers alone, but other electronic devices that can store information such as mobile/cellular phones, organizers, smart cards etc.

(ii) Preservation: Given the likelihood of judicial scrutiny in a court of Law, it is crucial that any examination of electronically stored data be carried out in the least intrusive manner. Alteration to data that is of evidentiary value must be accounted for and justified. The alteration/change must be made to both data and electronic device to facilitate access to the data.

(iii) Analysis: This is the extraction, processing and interpretation of digital data. Once extracted, digital evidence requires processing before it can be read by people. For example, when the contents of a hard disk drive are mirrored, the data contained within the image requires processing so that it is extracted in a humanly meaningful manner.

(iv) Presentation of Digital Evidence: This involves the actual presentation in a Court of Law. This includes the manner of presentation, the expertise and qualifications of the presenter as well as the credibility of the processes employed to produce the evidence being tendered.

(c) Merits of duplicating original evidence during Forensic Investigation include:

(i) It enables the examiner to apply various techniques

(ii) It permits multiple forensic computer specialists to work on the data or parts of the data, at the same time.

(iii) It ensures that the original evidence is in the best state possible for presentation in a court of law.

Demerits

(i) It may affect proper authentication, thus questions may be raised over integrity, accuracy and reliability of examination process and the results produced.

(ii) Implementation requires additional resources and time to accommodate the duplicated data and facilitate the duplication processes.

(iii) Restoration of duplicated data in a way that relocates the original environment can be difficult, since in an attempt to do so, items of hardware, software etc may be required.

EXAMINER'S REPORT

The question requires candidates' understanding of the use of computing devices to investigate and analyse data that may be admissible in a law court.

Candidates are expected to define Computer Forensic and should be able to explain the main activities in the investigation evidence to be used in a law court; they are also to enumerate advantages and disadvantages of duplicating the original evidence.

Over 60% of the candidates displayed a good understanding of the question. Performance was good as over 50% scored more than half of the marks obtainable.

Commonest pitfall was in their inability to enumerate properly the advantages and disadvantages of duplicating original evidence.

Candidates should read more literature on Forensic Computing.

QUESTION 4

(a) (i) COBIT is an information technology governance tool that has been of tremendous benefit to information technology professionals and has contributed immensely to effective control of information systems.

It links information technology and control practices consolidates and harmonises standards from potential global sources into critical resource for management control, professionals and auditors.

(ii) COBIT components include the following:

- Management Guidelines
- Executive Summary
- Framework
- Control Objectives
- Audit Guidelines
- Implementation Tool Sets

(b) (i) Information privacy or data privacy is the relationship between collection and dissemination of data, technology, the public expectation of privacy and the legal issues surrounding them.

It is to have control over individual information and not to be observed without individual consent.

(ii) Data privacy issues can arise from a wide range of sources including:

- Healthcare records
- Criminal justice investigations and proceedings
- Financial institutions and transactions
- Biological traits, such as genetic material
- Residence and geographic records
- Ethnicity.

EXAMINER'S REPORT

The question tests candidates' knowledge on Information Technology governance, especially COBIT, as well as privacy issues relating to information.

Candidates were expected to explain COBIT and enumerate its components. They were also to explain information privacy and enumerate sources that may lead to privacy issues.

Over 60% of the candidates displayed understanding of the question, but the performance was poor.

The commonest pitfall was the inability of most candidates to give sources through which data privacy issues can arise in part (b).

Candidates are advised to read more literature on information/data privacy issues.

QUESTION 5

(a)(i) Hub is a common device often used in Bus and Star topologies at a central location to connect computing devices to a local network. Communications that go through the Hub are broadcast to all devices on a network.

(ii) Switch is like a Hub except that it is more intelligent. Communications that go through a switch go only to designated devices on a network.

(iii) Bridge is a device that connects two networks such as a LAN (Local Area Network) to the internet or WAN (Wide Area Network).

(iv) Gateway Concentrator: This allows for the connection of two computers that use different connection- oriented transport to protocols, such as a computer using TCP/IP protocol needs to "talk" to ATM Transport protocol oriented.

(v) Router is a specialized communications processor that forwards packets of data from one network to another.

(vi) Multiplexer is a single communication channel that carries data transmissions from multiple sources or vise versa

(b) (i) Circuit Switching: In circuit switching, a dedicated channel (Circuit) is established for duration of the transmission. The sending node signals the receiving node that it is going to send a message. The receiver acknowledges the signal. The receiving node then receives the entire message. The telephone communication is the most common type of circuit switching communication.

The advantages of circuit switching include:

- Both data and voice can use the line
- No special training or protocol are needed to handle data traffic

Disadvantages

- The requirement that the communications devices be compatible at both ends may not be met.

- The rate of transmission is low

(ii) Packet Switching: A message is broken up into packets. A packet is a group of bytes transmitted together with no overhead bits added between them, although some precede and follow the packet. Thus a single message consists of:

- Several streams of bits that make up syncronisation bytes ('sync byte' to announce the beginning and end of an entire packet)
- A packet and
- Error check bits

Each of the message packets is passed from the source computer to the designation computer, often through intermediate nodes.

At each node, the entire packet is received, stored, and then passed on to the next node until all packets, either kept together or reassembled, reach the destination.

Advantages

- Sending and receiving devices do not have to be data-rate compatible because buffers in the network may receive data at one rate and retransmit it to another.

- The lines are used on demand rather than being dedicated to a particular call.

Disadvantages

- It requires complex routing and control software.

- Data transmission rate is low

EXAMINER'S REPORT

The question tests candidates' understanding of telecommunication devices, along with some data transmission techniques.

Candidates were expected to explain by spelling out the use of each network device with the hope of distinguishing among them. They were also to explain the operation of the given data transmission techniques, highlighting the advantages and disadvantages.

Most candidates did not have a clear understanding of the question. Performance was very poor.

The commonest pitfall was that candidates could not really bring out the key points needed in the question.

Candidates are advised to read more literature on telecommunication terminal devices.

QUESTION 6

(a) (i) Information Technology Risk Assessment strategy is a method of identifying vulnerabilities and threats to information systems and assessing the possible damage to determine where to implement security safeguards.

(ii) Risk element assets are:

- Tangible: This is measurable. Examples: computers, facilities, supplies etc.
- Intangible: This is immeasurable and difficult to assess. Example: reputation, intellectual property.

(iii) Factors to be considered while assessing the value of information and assets include the:

- Cost to acquire or develop the assets
- Cost to maintain and protect the assets
- Value of the assets to owners and users
- Value of the assets to competitors
- Cost to replace the assets if lost
- Operational and production activities that are affected if the assets are unavailable
- Usefulness and role of the assets in the organization
- Value of intellectual property used in the assets.

(iv) Reasons for determining the value of assets include:

- The performance of effective cost/benefit analysis.
- Selection of specific counter measures and safeguards.
- Determination of the level of Insurance cover to purchase
- Understanding what exactly is at risk.
- Conforming to due care and complying with legal and regulatory requirements.

(b) (i) Policies are essentially IT control mechanism. IT policies specify the standard rules and regulation established to guide the operation of an information system for compliance with the overall business goals and objectives and also for its safety and security.

(ii) Key actions that contribute to the success of a security policy include:

- Implementing through ordinary means, such as system administration procedures and acceptable use policies.
- Enforcing policy through security tools and sanctions.
- Delineating the areas of responsibility for users, administrators and managers communicating in a clear understandable manner to all concerned.
- Obtaining employee certification that they have read and understood the policy.
- Providing flexibility to address changes in the environment
- Conducting annually a review and obtaining approval of the board of directors.

EXAMINER'S REPORT

The question tests candidates' understanding of Information Technology Risk Assessment Strategy and Information Technology Policy Statement.

Candidates were expected to explain Information Technology Assessment Strategy, identify risk elements assets, factors to be used in assessment and the actions that contribute to the success of a security policy.

About 30% of the candidates displayed a fair understanding of the question. Performance was very poor.

The pitfall was the inability of candidates to identify the risk elements and the key actions that contribute to the success of a security policy.

Candidates should endeavour to read more textbooks, journals etc on Information Technology Risk Assessment.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I – MAY 2012
ADVANCED AUDIT AND ASSURANCE
Time allowed- 3 hours

SECTION A: Attempt All Questions

PART I: MULTIPLE-CHOICE QUESTIONS (20 Marks)

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

1. When a client commits an illegal act, which ONE of the following steps should an auditor take as part of his professional expectations?

   A. Assess the risk of material misstatement of the financial statements due to illegal act and report on them
   B. Consider the illegal act from the direction of the reliability of management representations
   C. Take responsibility to detect the illegal act by the client and report on them after alerting the law enforcement agents
   D. Advise the client to consult a legal adviser about questions of law on illegal acts as it affects the financial statements.
   E. Rely on any contingent monetary effects and loss contingencies resulting from the illegal acts.

2. The Treasury Inspectorate Department in the office of the Accountant-General of the Federation is responsible for oversight functions of the treasury on accounting and financial control matters.

   Which ONE of the following matters may NOT give rise to an investigation?

A. Suspicion based on alteration or falsification of records
B. Petitions and anonymous letter
C. Newly computerised accounting procedures
D. Newspaper publication and other news media information
E. Internal Audit Reports

3. Which ONE of the following actions is an appropriate strategy by organisations wishing to improve the public's perception of their Financial Reporting?

A. Requiring the Head of Internal Audit to report all significant observations of illegal activity to the Chief Executive Officer
B. Ensuring the maintenance of independence by keeping external and internal audit work separated
C. Adopting all the recommendations of external auditors and synchronizing them with that of internal auditors
D. Establishing an audit committee
E. Making internal auditing a grounded profession and a stepping stone to managerial positions

4. Information Technology Controls (or IT Controls) are specific activities to ensure that business activities are met and are performed by persons or systems designed for such purposes.

Sample steps for a Quantitative Risk Analysis do NOT include one of the following

A. Assign values to Assets to determine value
B. Perform a Threat Analysis
C. Estimate potential loss per threat
D. Increase, Transfer or Accept the risk
E. Derive the overall loss potential per threat

5. Audit software maintainability is very crucial for an auditor if he is to effectively perform in a computerised environment. Which ONE of the following attributes BEST relates to computer software maintainability?

A. Acceptance of compatibility
B. Resources needed to make specified modification
C. Efforts needed to use the system applications

D. Relationships between software performance and the resources needed
E. Fulfilment of user needs

6. International Standard on Auditing (ISA 240) requires that an auditor must approach his work with an attitude of professional scepticism. This means therefore that auditors should be thorough when carrying out their jobs and should respond to one of the following:

A. Blood hounding the staff including top management
B. Be suspicious that the Accounts may not comply with regulatory requirements
C. Be suspicious that there could be unintentional error or fraud
D. Be suspicious that the Accounts may contain one or more deliberate errors or fraud
E. Display a high sense of professionalism or care in carrying out his assignments.

7. The Reporting Accountant should not rush to accept any appointment but rather carefully consider whether there are matters which might make it difficult or impossible for him to report on the profit forecast.

Which ONE of these options is relevant in this scenario?

A. The nature of the company's business which is legal and very crucial to the economy
B. Sufficient time allowed for obtaining and assessing required information
C. Good reputation of the promoters of the company
D. Unreliable Accounting and Costing Methods
E. Reliable methods of forecasting

8. Accountants who are in employment or in practice sometimes are required to carry out fraud investigations. Which ONE of the objectives below is NOT for fraud investigations?

F. To ascertain the department affected
B. To know those who are behind the fraud or the extent of individuals involvement
C. To determine the existence of the fraud
D. To ascertain the prosecutors of the fraud

E. To know and ascertain the amount involved

9. In the case of a member who is nominated to serve on the audit committee, by how many days before the Annual General meeting (AGM), must the nomination be submitted to the company secretary?

   A. 10 days
   B. 14 days
   C. 21 days
   D. 30 days
   E. 40 days

10. Statement No7 in ICAN's Professional Conduct for Members makes extensive provisions for fees to be charged by Chartered Accountants.

    Which ONE of the following is NOT consistent with this provisions?

    A. Chartered Accountants are entitled to charge for their services by agreeing with the client or make reference to the custom of the profession.
    B. In case where there is no agreement on the basis of fees, a member of the Institute should charge a fee which is fair and reasonable considering expertise, time expended, degree of risks and importance of the work.
    C. Prior to the commencement of the engagement, a member should inform the client in writing as regards fee quotation and estimates.
    D. Quoting a fee that is lower than that of another member is absolutely prohibited and should be regarded as unethical
    E. Fees should not be charged on a percentage, contingent or similar basis in reporting of audit work, reporting assignment or similar non-audit assignments.

11. Which ONE of the following should be regarded as shortcomings of a joint audit engagement?

    A. Audit fees are shared in an agreed ratio

B. It allows for exchange of ideas and technique
C. Firms may suffer for another's negligence
D. It may not improve auditors' skill
E. Audit risk may be minimised.

12. Right from the planning stage through the actual performance of the assignment, the auditor is required to perform an assessment of the risk of fraud in the entity

Which One of the following controls CANNOT address the above scenario?

A. Control over related party transactions
B. Control over journal entries and adjustments made in the period and financial reporting process
C. Control over management and operation expenses
D. Control relating to management's significant estimates
E. Control that mitigate insentive or pressure on management to falsify or inappropriately manage financial results

13. Qualified auditor's report has been a subject of great controversy among the practitioners and the general public in recent times. As an auditor, which one of the following guidelines should NOT be observed in an audit report?

A. The qualification must be concise and clear
B. The qualification should be specific as to the items and facts, and as far as possible the amount involved
C. It should make clear the effect on the financial statements as a whole
D. It should express the auditor's opinion without being misunderstood
E. It should be indirect and may be unambiguous.

14. In comparing auditing standards in Nigeria with relevant International Standards on Auditing (ISA) issued by International Federation of Accountants (IFAC), it has been observed that some short comings of local standards have led to one of the following:

A. Multinational audit firms do not adopt these standards
B. Multinational corporations' collapse are more frequent than small companies
C. Local Chief Executive Officers (CEOs) were becoming very corrupt.
D. Weak or faulty financial reporting

E. Failure of companies to adopt these standards.

15. When auditing a financial statement, which ONE of the following areas is an Auditor required to perform entity level fraud related risk control assessment?

A. Bank circularisation
B. Audit Committee
C. Non-executive Directors
D. Due diligence reports
E. Related party transactions

16. During the audit of computer based financial statements, Test Data or Test Pack can be used for the following, EXCEPT to

A. confirm the program used
B. verify the effectiveness of program controls
C. confirm that exception reports are correctly produced
D. verify the existence of program controls
E. sort transactions and account balances in a desired sequence for audit purpose

17. The benefits derivable from audit risk assessment include the following EXCEPT

A. Saves audit costs and fees
B. Reduces the possibility of under or over auditing
C. Results in a more effective and efficient audit work
D. Facilitates the use of sampling
E. Reduces time available for obtaining audit evidence

18. Which of the following is NOT a step to be taken by the Auditor in order to minimise professional negligence?

A. An effective audit planning so as to identify critical audit areas
B. Compilation of good quality audit working papers

C. Engagement of experienced and qualified professionals on assignments
D. Effective audit risk assessment
E. Avoidance of assignments with low audit fees

19. The responsibility for the preparation of profit forecast that is to be included in the prospectus of a company seeking quotation rests with

A. The shareholders of the company
B. External Auditor of the company
C. The Reporting Accountant of the company
D. Internal Auditor of the company
E. The Directors of the company

20. Companies and Allied Matters Act, Cap C20 LFN 2004, S.369 (2) provides that an Officer of a company commits an offence if he knowingly or recklessly makes to a company's auditors, a statement (whether written or oral) which is

A. An extract of the minutes of the Board meeting
B. An extract of the minutes of management meeting
C. Misleading, false or deceptive in a material particular
D. In accordance with underlying accounting records
E. Compliant with the Statements of Accounting Standards

PART II: SHORT-ANSWER QUESTIONS (20 MARKS)

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

1. In an IT environment, the elimination of redundant data is known as.............

2. Auditors must recognise that the preparation of financial statements requires management to make significant accounting ....and.................as well as to determine from among several alternatives, accounting principles and methods most appropriate within the framework of Generally Accepted Accounting Standards (GAAS).

3. Professional ethics regulates the way and manner each member relates to other members on one hand and to the ....on the other hand, both from the moral perspective.

4. Forensic Accounting encompasses both............and Investigative Accounting.

5. The Auditor-General for the Federation is appointed by the President on the recommendation of the ....subject to confirmation by the Senate.

6. The reserves as required by the law to be maintained by insurance companies to cover fluctuations in securities and variations in statistical estimates is known as............................

7. If in liquidation, the proceeds of the debenture-holders securities as realised are insufficient to pay off the debentures, they will rank as.............creditors for the balance still due to them.

8. The intentional misrepresentations of financial information by one or more individuals among management, employees, third parties or even directors of companies is called..................

9. The susceptibility of an Account Balance to error where there are no related control procedures is called.............

10. During the course of the audit of a soap manufacturing company, a material item for environmental costs will be disclosed as.....................item and given full explanation in the Notes to the Accounts.

11. The descriptive phase of all financing arrangement where strict recognition of the legal aspects of the individual contract results in the exclusion of liabilities and associated assets from the balance sheet is known as……………………

12. An audit of financial statements which may be relied upon outside the jurisdiction of the audited entity for the purpose of significant lending investment or regulatory decision is referred to as…………………audit.

13. From which document/source would the auditors obtain evidence of the approval of transfers to or from reserves? ……………………………….

14. The rules and regulations guiding the conduct of a charitable organization is contained in a document known as ……………………………..

15. A terminology used in systems engineering and software engineering that refers to the process of creating or altering systems, models and methodologies is known as …………………………..

16. The Public Sector Audit, conducted with a view to ensuring that expenditure has been incurred on approved services and in accordance with the enabling statutory provisional expenditure is called …………………………………

17. Computer Assisted Audit Technique which the Auditor uses to examine an enterprise's computer files is called ……………………………….

18. The law allows the auditor to give a positive or negative opinion on the financial statements prepared by the management and he cannot be sued for defamation. That protection given by law is called ……………………………….

19. An active approach by Auditors in concentrating on proving input data as well as thorough examination of the processing procedures to ascertain that unusual conditions in the input cannot cause misprocessing is known as ……………………….

20. The Auditor of a Limited Liability company needs to be familiar with all the internal rules and regulations guiding the operations of the company before carrying out his audit work. The document that contains these rules is known as ……………………….

SECTION B: ATTEMPT QUESTION ONE AND ANY OTHER THREE

QUESTIONS (60 Marks)

QUESTION 1

Gold Stars Investments sells refrigerators and gas cookers in ten retail outlets. Sales are made to customers on cash and cheque basis. All items purchased are delivered to the customers using the company's delivery vans where the items cannot be transported by the customers using their own vehicles.

The Directors of the company indicated that the company had gone through a difficult year but are pleased to present some acceptable results to the members.

Provided below is an extract of the financial statements.

	31 Dec. 2011	31 Dec. 2010
	₦'000	₦'000
Turnover	14,964	12,728
Cost of Sales	(7,040)	(8,506)
Gross Profit	7,924	4,222
Operating Expenses		
Administration	(2,470)	(2,640)
Selling and Distribution	(1,962)	(1,378)
Interest expense	(202)	(210)
Investment Income	290	---
	3,580	(6)
Balance Sheet Extract		
Cash and Bank Balances	506	(1,900)

Required:

With reference to International Standards on Auditing (ISA 520) on Analytical Procedure, explain

(a) The term Analytical Procedure. (2 Marks)

(b) TWO uses of Analytical Procedures. (3 Marks)

(c) TWO circumstances in an audit when analytical procedures can be used. (3 Marks)

(d) Possible causes for unusual changes in the Profit and Loss Account (7 Marks)

(Total 15 Marks)

QUESTION 2

You have been appointed Auditor of a company whose accounting transactions are processed using computer. You have decided to use Computer-Assisted Audit techniques (CAAT) to generate evidence for the audit assignment.

Required:

(a) State FOUR advantages and THREE disadvantages of using test data in compliance testing of application controls. (7 Marks)

(b) List FOUR activities for which audit software may be used to perform substantive tests by the auditor. (4 Marks)

(c) List TWO advantages and TWO disadvantages of the use of audit software. (4 Marks)

(Total 15 Marks)

QUESTION 3

The Internal Controls applicable to insurance operations will be different from those for trading or manufacturing companies only in respect of peculiar transactions and processes such as quotations, insurance covers, claims and commissions

Required:

(a) List FOUR Internal Control measures on insurance claims and FOUR Internal Control measures on insurance cover. (8 Marks)

(b) List SEVEN admissible assets of an insurance company for the computation of solvency margin. (7 Marks)

(Total 15 Marks)

QUESTION 4

In the audit of companies using electronic commerce, the knowledge of the business is crucial in determining the most effective and efficient audit strategy.

Required:

(a) Identify and explain FIVE challenges an auditor may face in carrying out the audit of e-Commerce transactions. (10 Marks)

(b) State FIVE security measures aimed at ensuring integrity of the client's records. (5 Marks)

(Total 15 Marks)

QUESTION 5

The issue of corporate and audit failure have been a subject of discussion in many quarters particularly in the auditing profession. The investors, public, capital market and their regulators are also becoming sceptical about the credibility of some financial statements. All these have imposed challenges to the accountancy profession.

Required:

(a) Explain what is referred to as Audit Failure. (2 Marks)

(b) Outline THREE instances of Audit Failure using classical or recent examples. (3 Marks)

(c) Suggest FIVE ways in which the auditing profession can respond to the issues raised by Audit Failure. (10 Marks)

(Total 15 Marks)

QUESTION 6

As the lead auditor to Hilus Paints Plc, a blue-chip company that produces car paint with its head office and some subsidiaries in Nigeria including two subsidiaries overseas.

All subsidiaries are involved in the manufacture and distribution of car paint of all colours that meet customers' demand. Both the holding company and the subsidiaries adopt the same accounting period.

Required:

(a) Explain the audit procedures you will adopt in the process of carrying out the review of the consolidated accounts of the manufacturing company. (10 Marks)

(b) (i) What are auditors' consideration in relation to social audit? (2 Marks)

(ii) List THREE areas that are of primary concern to a company on corporate governance. (3 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

PART I MULTIPLE-CHOICE QUESTIONS

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

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

EXAMINERS' REPORT

The questions test most areas of the syllabus.

Candidates demonstrated fair understanding of the questions and performance was fair.

It is recommended that candidates endeavour to study more widely to ensure coverage of the syllabus.

PART II SHORT-ANSWER QUESTIONS

1. Data Base Normalisation
2. Estimate, Judgement
3. Society or Public
4. Litigation support
5. Federal Civil Service Commission or Civil Service Commission
6. Contingency Reserves

7. Unsecured
8. Fraud

9. Control Risk
10. Exceptional
11. Off Balance Sheet Items
12. Transnational
13. Minutes of Board of Directors Meeting
14. Trust Deed
15. Systems Development Life Cycle
16. Compliance Audit
17. Audit Software
18. Reporting Independence
19. Audit through the computer
20. Articles of Association

EXAMINERS' REPORT

The questions test most areas of the syllabus.

Candidates demonstrated fair understanding of the questions, and performance was average.

It is recommended that candidates prepare well for the examinations.

SOLUTIONS TO SECTION B

SOLUTION 1

CASE STUDY
GOLD STARS INVESTMENTS LIMITED

(a) Analytical procedures actually mean the evaluation of financial and other information and the review of plausible relationships in that information. The review also includes identifying fluctuations and relationships that do not appear consistent with other relevant information or results.

(b) Analytical procedures can be used for

(i) Comparison of comparable information in current period with those of the same period in prior periods to identify unusual variations or fluctuations in amounts.
(ii) Comparison to industry information either for the industry as a whole or by comparison to entities of similar size to the client to determine , for example, whether receivable days are reasonable.
(iii) Comparison of actual or anticipated results of the entity with budgets and forecasts or the expectations of the auditor in order to determine the potential accuracy of those results.

(c) Situations in an Audit when Analytical procedures can be used are as follows:

(i) Risk Assessment Procedure-

Analytical procedures are used at the beginning of the audit to help the auditor obtain an understanding of the entity and assess the risk of material misstatements. Audit procedures can then be directed to the "risky" areas.

(ii) Analytical Procedures as Substantive Procedures-

Analytical procedures can be used as substantive procedures in determing the risk of material misstatement at the assertion level during audit work on the income statement and balance sheet.

(iii) In the overall review at the end of the audit-

Analytical procedures help the auditor at the end of the audit in forming an overall conclusion as to whether the financial statements as a whole are consistent with the auditor's understanding of the entity.

(d) (i) Net Profit-

The Company's overall result in 2010 has changed from a
net loss to a net profit. Given that turnover has only increased by 17% and expenses, particularly administration expenses, appear low. There is the possibility that expenditure might have been understated.

(ii) Turnover Increased by 17% -

According to the directors, the company had a 'difficult year'. The reasons for the increase in sales income must be ascertained as the change did not conform with the directors comments. It is possible that the industry as a whole has been growing, allowing Gold Star to produce this good result.

(iii) 17% Fall in Cost of Sales -

A fall in the cost of sales is unusual given that sales have increased significantly. This may have been caused by an incorrect inventory valuation and the use of different (cheaper) suppliers which may cause problems of inferior goods in future.

(iv) Gross Profit (GP) increased by 20% -

This is a significant increase with GP% changing from 33% in 2010 to 53% in 2011. The reason for this change might be due to increase in sales and reduction in Cost of Sales. Other reasons might come to light during the audit.

(v) 6% fall in administration expenses -

This is unusual given that sales are increasing and so an increase in admin cost to support those sales would be expected. Expenditure might have been understated or there could have been a reduction in the number of admin staff apart from improved efficiency in the general administration of the outfit.

(vi) Selling and Distribution Expenses increased by 42% -

This increase does not appear to be in line with the increase in sales. Selling and distribution expenses would be expected to move in sympathy with sales. There may be a misallocation of expenses from administration costs, or the age of the company's delivery vans is increasing resulting in additional service costs. It is also possible that the company had not been effective in selling and distribution operations.

(vii) Interest expense dropped a little-

Given that the company has a considerable cash surplus in 2011, continuing to pay interest is rather surprising. The amount may be overstated. The reasons for lack of fall in interest payment may be loans that could be repaid early; this must be determined.

(viii) Investment Income –

This was a new revenue item in year 2011. This arose as a result of surplus funds invested by the company.

EXAMINERS' REPORT

The question tests candidates understanding of analytical procedures as contained in International Standards on Auditing (ISA 520).
Almost all the candidates attempted the question and performance was below average. Their commonest pitfall was interchange of part (b) for (c), and lack of ability to analyse financial statements.

Candidates are advised to cover the syllabus thoroughly when preparing for examinations.

SOLUTION 2

(a)(i) Advantages of test data include:

- They provide a positive assurance of the correct functioning of the program controls actually tested;
- They can be used on a continuing basis until the programs are changed;
- Once set up, running costs from year to year are low;
- They require less detailed knowledge of data processing; and
- They are cheap to install and easy to implement as their contents are variable at will.

(ii) Disadvantages

- The problem of data files corruption where 'live' test data is used
- It is time consuming
- Where 'dead' test data is used, the auditor requires a reasonable assurance that the programs being used are those in normal processing
- Gives an indication of correct or improper functioning of controls only at the time of the test which may change thereafter.

(b) Activities for which audit software may be used during substantive tests by the auditor include:

i. Re-perform calculations;
ii. Select individual transactions for subsequent manual substantive tests;
iii. Extract list of exceptional items;
iv. Obtain information relevant to analytical review; and
v. Used to scrutinize large volume of data.

(c) Advantages of the use of Audit Software

i) It can be used to analise voluminous data.

ii) The search is much more accurate and faster than when a software is not applied.
iii) The running costs are usually low.
iv) It can be used for other transactions

Disadvantages

(i) Has a high set up cost.
(ii) Usually not available for small companies.
(iii) Requires considerable level of knowledge in data processing.
(iv) Consumes a lot of computer time which may not be acceptable to clients.

EXAMINERS' REPORT

The question tests candidates' understanding of the application of the audit software.

Most candidates attempted the question, and performance was very poor. Their commonest pitfall was the inability to distinguish between test data and Audit Software.

Most organisations are now using computer for processing their data. It is important for Auditors to be able to audit the accounts of these organizations utilizing audit software. Candidates need to know how these systems work to enable them carry out these audits.

SOLUTION 3

(a) Internal control measures on insurance claims:

(i) Use of claims administration manual;
(ii) Use of loss adjusters and lawyers as the case may be;
(iii) Use of special investigators;
(iv) Keep control records of claims processing times; and
(v) Arrange for independent review of claims paid.

Internal control measures on insurance cover:

(i) Issuance of underwriting manual;
(ii) Ensure the engagement of competent staff;
(iii) Pre-numbered endorsement sheets to be used;
(iv) Pre-numbered debit and credit notes to be used;
(v) Specify the credit policy; and
(vi) Independent review of covers granted.

(b) Admissible assets of an insurance company for the purpose of computation of solvency margin are:

i) Cash and bank balances
ii) Quoted investments at market value
iii) Unquoted investments at cost
iv) Land and Buildings
v) Furniture and Fittings
vi) Office Equipment
vii) Motor vehicles
viii) Prepaid expenses to staff
ix) Amount due from retrocession
x) Staff loans and advances
xi) Claims receivable

EXAMINERS' REPORT

The question tests candidates' understanding of Internal Control as it relates to insurance business.

Very few candidates attempted the question and performance was poor in part (a), but good in part (b).

The commonest pitfall of the candidates was using general controls in insurance environment.

Adequate preparation and coverage of the syllabus and proper interpretation of the requirements of the question by candidates are recommended for better performance.

SOLUTION 4

(a) e-Commerce is becoming a regular feature of modern business and an auditor must be competent in the use of internet and other electronic devices to be able to carry out the audit of the financial statements of an entity engaged in e-Commerce.

The challenges to the auditor will cover the following areas:

(i) Auditors knowledge of the business must be thorough and this is fundamental in assessing any impact on audit risk and security issues which the client's business may be exposed to e.g how the e-Commerce system is linked to the internet.

(ii) The auditor needs to understand wide range of risks that exist e.g hacking, lack of authentication of transactions, transmission failure, loss of trust, theft of customers identities, systems reliability and prevention and detection controls.

(iii) Challenge of establishing benchmarks in a new environment in the area of materiality.

(iv) Risk Assessment – consider the authenticity of customers/suppliers and integrity of transactions.
-Risk in the area of recording and processing of e-commerce transactions such as when unidentified individual initiate a transaction, or there is a loss of visible evidence – audit trail
-Viruses, hacking and other computer crimes, denial of service, money laundering, risk of system failure or crashes which lead to data loss

(v) Particular risk relating to dot.com entity such as absence of traditional asset base, the need for the on-going investment in web technology. The risk in this type of transaction are in the area of validity of customers data, credit or and transactions and dispatching of products.

(vi) Going concern when they report significant losses due to non-recurring transactions and events, cash flow and breakdown forecast, entity business plans, adequacy of arrangement to ensure the viability of continued operations

(vii) Controls – Demands installation of sophisticated and extensive controls encompassing data privacy.

(b) Five Security Measures aimed at ensuring integrity of clients' records include the following:

(i) Data Encryption ie scrambling into code which can only be decrypted with the right key
(ii) Hash value ie a total of fields to check that the numerical values in a transaction have not been tampered with
(iii) Digital signature – verify that transactions have been sent by an authorized user.
(iv) Passwords-using 6-8 alphanumeric combinations
(v) Biometrics – physical attributes e.g thumbprints, voice recognition, retina scans.
(vi) Transaction certificates – typically obtained by a customer and presented electronically to a supplier who checks its validity.

EXAMINERS' REPORT

The question tests candidates' understanding of the audit of e-Commerce business.

Most candidates attempted the question and performance was poor. The pitfall of the candidates was that they treated challenges of computer audit in general rather than on e-commerce business.

Candidates are advised to pay particular attention to current development in Information and Communication Technology (ICT).

SOLUTION 5

(a) Audit Failure – This is a scenario that takes place when an audit gives a clean report on the published accounts of a company which subsequently ceases to be a going concern shortly after the audit. Thus in the public perception, that audit has failed.

It means therefore that shareholders are not warned early enough about going concern issues and so lost the value of their equity investment due to a fraud, misappropriation or misrepresentation that were not detected but subsequently emerged.

(b) Three Instances of Audit Failure

i. Enron Corporation failed shortly in December 2001 when Arthur Anderson, an international audit firm gave a clean report.

Though this is not a new subject for discussion but it came under wider and closer scrutiny. After the clean report, the company filed for bankruptcy. When companies of that size fail, confidence in the stability of the capital markets falls and this corporate collapse brought down share values across the world. Now regulators, the public, the accounting and auditing profession are seeking for solution.

ii. Worldcom Corporation also was audited by Arthur Anderson. The two cases above led to the passing of the Sarbanes – Oxley Act (SOX) i.e. Accounting Reform and Investor Protection Act which was passed and became law in August 2002 in the US following the series of accounting and governance scandals involving American public corporations

iii. The Baring Bank – The instance of the bank failure demonstrated spectacular collapse of a big institution with poor risk management practice proceeded by unqualified audit report.

iv. Other local examples are those of Unilever Plc, Cadbury Plc and IPWA Plc.

(c) Responses by Auditing Profession – Way forward

i. Auditing profession can dismiss the rule-based approaches and embrace the principle-based standards on global basis which can undermine an auditor's judgement e.g ICAN supports ''think Global act Local''

ii. National regulators need to rise in return for participation and influencing the global developments
iii. Support for International Standards on Auditing issued by the IFAC is also increasing.
iv. The profession undertakes a review for monitoring compliance with professional guidance e.g Joint Monitoring Unit for statutory work and mandatory peer reviews and the enforcement mechanism which support them.
v. Limiting auditors appointment with a particular company. This will lead to change of auditors after a short period of time, say five years. This could help to avoid over familiarity with some auditors who have stayed too long in a company.

vi. A suggestion has been put forward to prohibit auditors from undertaking consulting work, although this is been opposed.
vii. Making audit appointments less dependent on executive directors through greater involvement of non-executive directors, audit committee and institutional shareholders.
viii. Limiting the nature and extent of other services
ix. Requiring fuller disclosure of audit fees including expenses, and other fees in the financial statements.
x. A mandatory review by audit committee of the independence of external auditors and the publication of a statement that they are satisfied with their findings
xi. For auditors to state explicitly that audit report does not guarantee going concern and to include a disclaimer of responsibility for the detection of fraud.

EXAMINERS' REPORT

The question tests candidates' understanding of Audit failure.

Most candidates attempted the question and performance was poor.

The commonest pitfall was that candidates mistook Audit failure for either audit report or even pure audit.

Candidates need to understand the requirements of the question before answering it.

SOLUTION 6

(a) As the lead auditor to HILUX PAINTS PLC which has a number of subsidiaries in Nigeria and two in oversea countries, the audit steps that will be taken in the process of carrying out the review of the consolidated accounts of the group as follows:

(i) Check the transposition from the audited accounts of each subsidiary to the consolidation schedules

(ii) Ensure that adjustments made on the consolidation are appropriate and comparable with those of the previous year. This will involve the following:

- Recording the dates and cost of acquisitions of subsidiaries and the assets acquired
- Calculating Goodwill and pre-acquisition reserves arising on consolidation
- Preparing overall reconciliation of movement on reserves and minority intere

(iii) Check for Business Combinations:

- whether combination has been appropriately treated as an acquisition or uniting of interests
- the appropriateness of the date used as the date of combination
- the treatment of the results of investment acquired during the year
- if acquisition accounting has been used, that the fair value of acquired assets and liabilities is reasonable, when compared with the ascertainable market value by the use of experts.
- goodwill has been calculated correctly and if amortised, whether the amortization period is reasonable

(iv) Check for disposals

- the appropriateness of the date used as that for disposal. This can be ascertained from sales documentation
- whether the results of the investment have been included up to the date of disposal and whether figures used are reasonable

(v) consider whether previous treatment of existing subsidiaries is still correct or not, taking level of influence and degree of support into consideration

(vi) verify the arithmetical accuracy of the consolidation workings

(vii) Review the consolidated accounts for compliance with the legislation, accounting standards and other relevant regulation. This will involve
- All the subsidiaries in the manufacture or distribution of the same products, (ie car paints of all colours), hence all of them are to be consolidated
- Group companies should have accounting periods coinciding with those of the holding company
- Ascertaining if accounting policies of the subsidiaries differ because foreign subsidiaries might be operating under different rules

(viii) Review the consolidated accounts to confirm that they give a true and fair view under the prevailing circumstances

b(i). Social audits have to do with the extent to which a company gets involved and interacts with the society in which it operates including the welfare of its employees.

Social audit will therefore consider the following:
- The company's policy on staff incentives, pensions and welfare, recreational facilities and conveniences
- The company's pricing policy, product safety, quality control, warranty effectiveness, advertising integrity, debt settlement and collection methods
- Environmental protection policies and safety measures

(ii) Areas of primary concern to a company on corporate governance are:

- Board composition
- Directors responsibilities
- Shareholders rights and privileges
- Audit Committee

EXAMINERS' REPORT

The question tests candidates' understanding of audit procedures for consolidated accounts.

Most candidates attempted the question, and performance was poor in part (a) while performance was good in part (b). The commonest pitfall of the candidates was the application of generalized audit principles to answer the question.

PATHFINDER

Candidates are advised to read questions carefully and understand the requirements before answering them.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I – MAY 2012
MANAGEMENT ACCOUNTING
Time Allowed – 3 hours

SECTION A: Attempt All Questions

PART I: MULTIPLE-CHOICE QUESTIONS (20 Marks)

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

1. Which of the following is the management skill adopted to investigate the discrepancy/deviation from standard upon which the managers find causes of the problem and ways to eliminate it?

   A. Management by exception
   B. Strategic management
   C. Management by objective
   D. Management control
   E. Total Quality Management

2. During a period, an operative worked for 17,500 hours at a standard cost of ₦650 per hour. The labour efficiency variance was ₦7,800 favourable. How many standard hours were produced?

   A. 1,200 hours
   B. 16,300 hours

C. 17,500 hours
D. 17,512 hours
E. 18,400 hours

3. The objective of transfer pricing method which states that the method chosen should be such that any optimal decision taken by the division will also be optimal from the corporate perspective is

A. Performance evaluation
B. Motivation
C. Goal congruence
D. Autonomy
E. Decentralisation

4. In setting an international transfer price, a company will usually concentrate on satisfying the objective of

A. Maximisation of profit before tax
B. Increasing market share
C. Diversification of its products
D. Reduction in the cost of production
E. Minimising income taxation

5. Management Accounting and Financial Accounting differ in that Management Accounting information is prepared

A. Following prescribed rules
B. Using current data to influence the future
C. For stockbrokers
D. For the Internal Revenue Service
E. For determining share price

6. Tender Limited mixes four raw materials to produce plastic. Material K costs ₦40 per kg, Material Y costs ₦112 per kg, Material S costs ₦90 per kg, and Material Z costs ₦260 per kg. Each of the materials contributes some essential quality to the plastic and it is required to use the least cost mix.

The objective function, therefore, is

A. ₦$40x_1 + 112x_2 + 80x_3 + 260x_4$
B. ₦$40x_1 + 80x_2 + 112x_3 + 260x_4$
C. ₦$40x_1 + 260x_2 + 112x_3 + 50x_4$
D. ₦$40x_1 + 112x_2 + 90x_3 + 260x_4$
E. ₦$40x_1 + 100x_2 + 90x_3 + 260x_4$

7. Which ONE of the following is NOT a key element of a Material Requirement Planning (MRP)?

A. Lead time of all items
B. Bill of material
C. Stock out schedule
D. Master production schedule
E. Inventory report

8. Life cycle costing tracks and accumulates the actual costs from the beginning to the end of a

A. Process
B. Contract
C. Cost centre
D. Company
E. Product

Use the following information to answer Questions 9 and 10

Budgeted sales of product 'cocomix' for a period are 43,000 units. Each unit of cocomix requires 4 kg of material cassava. Budgeted stocks are as follows:

	Product cocomix	Material cassava
	Units	Kg
Opening stock	4,375	31,500
Closing stock	4,600	30,900

9. The budgeted production required for the next period is

A. 44,875 units
B. 43,675 units
C. 43,475 units

D. 43,375 units
E. 43,225 units

10. The budgeted purchases of material "cassava" in the next period are

A. 172,300 kg
B. 174,100 kg
C. 174,500 kg
D. 174,600 kg
E. 174,700 kg

11. Which of the following is the benefit of using a computerised budget system as opposed to a manual one?

A. Budget target will be more acceptable to the managers responsible for their achievement
B. Changes in variables can be incorporated into the budget more quickly
C. The principal budget factor can be identified before budget preparation begins
D. Continuous budgeting is only possible using a computerised system
E. Budget slack will not be unaffected in a computerised environment

12. The assumption which states that the worst possible outcome will always occur and decision makers should therefore select the largest pay off is

A. Regret criterion
B. Expected criterion
C. Maximax criterion
D. Maximin criterion
E. Maximum criterion

13. A situation where a firm internally imposes a budget ceiling on the amount of capital expenditure is known as

    A. Hard capital rationing
    B. Internal capital rationing
    C. Normal capital rationing
    D. Self capital rationing
    E. Soft capital rationing

14. The standard time for the production of a product is 40 minutes while the actual production of 40,000 units took 24,000 hours. What is the efficiency ratio?

    A. 45%
    B. 60%
    C. 100%
    D. 111%
    E. 120%

15. During a production period, actual materials purchased were 8,000 units at Cost of ₦20 per unit. The material price variance is ₦32,000 adverse. What is the standard price of material per unit?

    A. ₦12
    B. ₦16
    C. ₦18
    D. ₦20
    E. ₦24

16. Which ONE of the following is an advantage of simulation?

    A. Disruption of present situation
    B. Leads to false assumption about fundamental factor
    C. Unrestricted length of observation
    D. Collection of detailed data over a long period can be costly
    E. Collection of detailed data can be time consuming

17. Which ONE of the following assumptions does not hold if Specification Analysis is the testing of the assumption of regression analysis?

    A. Linearity is within the relevant range

B. There is constant variance of residuals
C. There is independence of residuals
D. Normality of residuals exist
E. There exists heteroscedasticity

18. A mark or state where the probability of not returning to the original state is 1, is called

A. Absorbing state
B. Transient state
C. Recurrent state
D. Egordic state
E. Regular state

Use the following information about the costs and activity levels of Benlulo Chemicals Limited to answer questions 19 and 20.

Activity Unit	Total Cost ₦
10,000	73,000
16,420	104,000

19. By using the high-low method, what is the total cost of 8,000 units that are to be produced?

A. ₦73,000
B. ₦63,340
C. ₦38,560
D. ₦24,700
E. ₦16,240

20. What is the fixed cost?

A. ₦16,420
B. ₦24,700
C. ₦38,560
D. ₦63,260
E. ₦73,000

PART II: SHORT-ANSWER QUESTIONS (20 MARKS)

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

1. A review to determine whether the policies and procedures specified by top management have been implemented is……………………………

2. A standard which represents the level of performance that is attainable under efficient operating condition is known as………………………………………

3. A term used to describe a technique where decision options are tested for their vulnerability to changes in any variable such as expected sales volume is called……………………….

4. Tank Ltd has an average labour cost of producing the 1st batch of 2,000 units of its new product at ₦20, with a reducing percentage of cost of 25%. What is the average labour cost of producing 8,000 units?

5. The establishment of targets and comparators through data gathering whose use relative levels of performance can be identified is known as………….

6. What is the present value of ₦4,000 that is due 8 years from now, if opportunity cost is 10%?

7. Taiwo wishes to determine the present value of a ₦1,000 perpetuity discounted at 15%. What is the value?

8. A system developed in Japan, whose objective is to produce or procure products/components as they are needed or required than for inventory is referred to as……………………

9. Deleon Plc. manufactures '*Exton*' soft drink. The following data relate to component 'X'

Cost of raw material	₦20 per unit
Usage of raw material	200 units
Maximum re-order period	30 days
Minimum re-order period	20 days

What is the Re-order level?

10. The formulation, evaluation and selection of strategies for the purpose of preparing a long-term plan of action to attain desired objectives are known as……………………

11. A product or service sold at lower than normal margins in order to attract customers who might then buy other items from the same stable at normal prices is known as……………………………

12. The term used to describe a technique whereby decisions are tested by their vulnerability to changes to any variable is…………………………

13. Computer-based technology allowing interactive design and testing of a manufacturing component on a visual display terminal is known as…………………………………

14. An integrated approach to configuring processes, products and people in order to match costs to the activities that need to be performed for operating effectively and efficiently is called……………………………

15. The act of Managers working on their own perceived best interest and making decisions that harmonise with the overall objectives of top management is known as……………………

16. The fusion and balancing of all factors of production or service and of all the departments and business functions so that the company can meet its objective are known as…………………………

17. A major potential problem with decentralisation particularly where the divisions are highly interdependent, is that of……………………………

18. The actions employed by local management to ensure its operations and decisions conform in ways that fulfil overall company objectives is called……………………

19. Abbey Limited manufactures three products in which sales and contribution sales ratio are:-

Product	Sales	C/S ratio
A	₦500,000	0.30
B	₦1,200,000	0.375
C	₦1,500,000	0.40

Determine the break-even point if the fixed cost is ₦750,000.

20. The TWO classes of planning variances are .... and..................

SECTION B: ATTEMPT QUESTION ONE AND ANY OTHER THREE QUESTIONS (60 Marks)

QUESTION 1 – CASE STUDY

Ngozi Obokun Limited is a manufacturer of foams. The accountant, Mr. Yakubu, is an OND graduate from one of the Nigerian Polytechnics. Mr. Yakubu is used to evaluating projects using Payback Period and Accounting Rate of Return.

In 2010, Ngozi Obokun Limited merged with Akin Ayodele Enterprises and a new company Dami Kolade Plc was incorporated. The merger increased the capital base and the net worth of the combined company.

The merger led to the rationalisation of the work force and the acquisition of computers and other vital equipment. Mr. Yakubu was affected and was subsequently relieved of his duties.

A new Accountant, Mr. Anthony, was employed. Mr. Anthony is a seasoned Chartered Accountant, who on assuming duties, changed the criteria of evaluating projects, introduced new accounting procedures and established sound internal control system.

Mr. Anthony introduced Net Present Value method of evaluating projects. The Managing Director, Mr. Kolade, travelled to the United States and attended a seminar on Investment Decisions and Capital Budgeting. When he arrived, he called a management meeting and shared his experience. At the end of the meeting, he insisted that Internal Rate of Return should henceforth be used to evaluate subsequent investments in the company. Mr. Anthony argued extensively that Net Present Value approach is the best and that this method is superior to the Internal Rate of Return.

The Board of Directors intervened and asked Mr. Anthony to evaluate the two pending alternative projects on both the Net Present Value approach and Internal Rate of Return approach and then advise the Board on which of the projects to undertake, and the fundamental reasons why Mr. Anthony's Net Present Value approach is superior to the Internal Rate of Return. The pending projects possess the following information:

	Initial Outlay	Net cash Inflow	Net Cash Inflow
YEAR	0	1	2
Project A:	-6,000,000	723,000	8,790,000
Project B:	-6,000,000	3,930,000	5,160,000

The cash flow estimates of Project A exclude a residual value of ₦200,000, while that of project B exclude a residual value of ₦130,000. Dami Kolade Plc's cost of capital is 20%.

As the new accountant, you are required to

(a) (i) Calculate the Net Present Value (NPV) of each of the two projects. ($3^1/_3$ Marks)

(ii) Calculate the Internal Rate of Return (IRR) of each of the two projects ($3^2/_3$ Marks)

(iii) On the basis of (i) and (ii) above, advise the Board which of the projects to undertake. (2 Marks)

(b) (i) State THREE factors that could cause conflict between NPV and IRR. ($1^1/_2$ Marks)

(ii) List THREE measures of resolving these conflicts. ($1^1/_2$ Marks)

(iii) Highlight THREE reasons why NPV method is superior to IRR. (3 Marks)

(Total 15 Marks)

QUESTION 2

Ketu Software Designers Limited is to develop a new accounting package "Pension Accounting". The newly employed management accountant has decided to introduce

'Life Cycle Costing & Budgeting' which is a technique new to the computer engineers working in the company. The budgeted costs right from the point of embarking on Research and Development (R&D) up to the time the customers' service will be withdrawn are provided below:

Year		Budgeted costs ₦'000
1	Research and Development cost	30,000
2	Design costs	14,000
2	Initial production for the 'test market' (10,000 units)	20,000
2	Distribution cost	4,000
2	Customer services' cost	3,000
3 - 7	Yearly production (fixed costs + variable costs) 150,000 units	10,000
3 - 7	Yearly distribution costs	30,000
3 - 7	Yearly customer services' costs	36,000

The proposed unit-selling price for the test market is fixed at ₦4,800. The company's cost of capital is 15%.

Required:

(a) Explain the technique of life cycle costing for the information of the computer engineers in the company. (3 Marks)

(b) Determine the unit-selling price that the company can fix for the years 3 to 7 in order to break even. (12 Marks)
(Total 15 Marks)

QUESTION 3

Jadesola Supermarket that specialises in grocery products is preparing its activity based budget for January, 2012 for its operating costs (that is, its non-cost of goods purchased for resale costs). The company's current concern is with its four activity areas (which are also indirect category in its product profitability reporting system).

(i) Ordering - covers purchasing activities. The cost driver is the number of purchase orders

(ii) Delivery - covers the physical delivery and receipt of merchandise – The cost driver is the number of deliveries.

(iii) Self – stocking - covers the stacking of merchandise in store shelves and the on-going restocking before sale.

(iv) Customer support – covers assistance provided to customer including check-out.

Assume Jadesola Supermarket has only three types of juice – mango juice, guava juice and pineapple juice

The budgeted usage of each cost driver in these areas of the store and January, 2012 budgeted cost drivers are as follows:

Activity area and driver	2011 Actual Rate ₦	January Budgeted rate ₦	Mango Juice	Guava Juice	Pineapple Juice
Ordering (per purchase order)	100	90	21	36	21
Delivery (per delivery)	80	82	18	93	28.5
Self standing (per hour)	20	21	24	258	141
Customer support (per item sold)	20	0.18	6,900	51,300	16,125

Required:

(a) Determine the total budgeted cost for each activity area in January 2012. (6 Marks)

(b) State any six advantages which might accrue to Jadesola Supermarket for using an activity based budgeting over an approach for budgeting operating costs based on a budgeted percentage of cost of goods sold multiplied by the budgeted cost of goods sold. (9 Marks)

(Total 15 Marks)

QUESTION 4

The business staff of the Law Firm of Frank, Dan and Smith has submitted the following report which breaks down the firm's overall results for last month into two main business segments – Family Law and Commercial Law:

Segment Reporting and Decentralization

	Family Law	Commercial Law	Total
	₦	₦	₦
Revenue from clients	800,000	1,200,000	2,000,000
Variable expenses	200,000	240,000	440,000
Contribution	600,000	960,000	1,560,000
Traceable fixed expenses	560,000	780,000	1,340,000
Segment margin	40,000	180,000	220,000
Common fixed expense	48,000	72,000	120,000
Net-operating income	(8,000)	108,000	100,000

However, this report is not quite correct. The common fixed expenses such as the Managing Partner's salary, general administrative expenses, and general firm advertising expenses have been allocated to the two segments.

Required:

(a)(i) Prepare the segment report, eliminating the allocation of common fixed expenses.

(ii) Would the firm be better off financially if the family law segment is dropped? (Note: many of the firm's Commercial Law clients also use the firm for their Family Law requirements such as drawing up wills). (9 Marks)

(b) The firm's advertising agency has proposed an advertising campaign targeted at boosting the revenues of the Family Law segment. The advertising campaign would cost ₦40,000 and the advertising agency claims that it would increase Family Law revenue by ₦200,000. The Managing Partner of Frank, Dan & Smith believes that this increase in business could be accommodated without any increase in fixed expenses.

What effect would this advertising campaign have on the family law segment margin and on the firm's overall net operating income?

(6 Marks)

(Total 15 Marks)

QUESTION 5

Zoebase Nigeria Limited. is a refining company located in Bayelsa State. The Refinery produces three petroleum products – Petrol (PMS), Kerosene (DPK) and Diesel (AGO).

The standard time for the production of the products are

PMS - 40 minutes per metric tonne
DPK – 30 minutes per metric tonne
AGO – 45 minutes per metric tonne

The budget for the month of February is as follows:

PMS – 45,000 metric tonnes
DPK – 25,000 metric tonnes
AGO – 30,000 metric tonnes

The actual data for the month were as follows:

Labour hours 70,000 hours
Production:

PMS – 48,000 metric tonnes
DPK – 27,000 metric tonnes
AGO – 25,000 metric tonnes

Required:

(a) Compute and interprete the following:

(i) The activity ratio
(ii) The efficiency ratio
(iii) The capacity ratio (8 Marks)

(b) "Cost reduction activities are planned efforts to reduce expenditure, while cost control actions involve all methods of controlling costs within a pre-determined target."

Explain the above statement highlighting TWO similarities and TWO differences between cost reduction and cost control. (7 Marks)

(Total 15 Marks)

QUESTION 6

Hadex Limited has a new wonder product of which it expects great things. At the moment, the company has two courses of action open to it to test-market the product or abandon it.

If the company test-markets it, the cost will be ₦100,000 and the market response would be positive or negative with probabilities of 0.60 and 0.40 respectively.

If the response is positive, the company could either abandon the product or market it full scale.

If it markets the product full scale, the outcome might be low, medium or high demand and the respective net gains/(losses) would be (200), 200 or 1,000 in units of ₦1,000 (the result could range from a net loss of ₦200,000 to a gain of ₦1,000,000). These outcomes have probabilities of 0.20, 0.50 and 0.30 respectively.

If the result of the test marketing is negative and the company goes ahead and markets the product, estimated losses would be ₦600,000.

If at any point, the company abandons the product, there would be a net gain of ₦50,000 from the sale of the scrap. All the financial values have been discounted to the present value.

You are required to

(a) Draw a decision tree to illustrate the above scenario. (4 Marks)

(b) Advise the company on the option to be selected. (11 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

MULTIPLE-CHOICE QUESTIONS

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

20. B

WORKINGS

Q2 Labour Efficiency Variance (LEV)
Standard Rate (Standard Hour – Actual Hour).
$\therefore$ LEV = SR (SH - AH)
₦7,800 = 650 (SH - 17,500)
650 (SH – 17,500) = 7,800
SH – 17,500 = 7,800/650
SH - 17500 = 12
SH = 12 + 17,500 = 17,512

Q6 Material K, is represented by x_1
Material Y is represented by x_2
Material S is represented by x_3
Material Z is represented by x_4

The objective function is
Min C = $40x_1 + 112x_2 + 90x_3 + 2604$

Q9 Budgeted production required

Sales	43,000
Add closing stock	4,600
	47,600
Less opening stock	4,375
	43,225

Q10 Budgeted purchases of cassava
Current Production required in kg i.e

43,225 units @ 4kg =	172,900
Add closing stock (kg) =	30,900
	203,800
Less opening stock (kg)	31,500
	172,300

Q14 Standard Time 40/60 x 40,000 = 26,667 hrs

Actual Time	=	24,000 hrs
∴ efficiency Ratio	=	$\frac{26,667 \text{ hrs}}{24,000} \times 100$
	=	111%

Q15 Material Price Variance (MPV)

MPV = AQ (SP - AP)

- 32,000 = 8000 (SP - ₦20)

- 32000/8000 = SP- ₦20

-4 = SP - ₦20

SP - ₦20 = - ₦4

SP = - ₦4 + ₦20

= ₦16

Q19

	Activity	Total Cost (₦)
High	16,420	104,000
Low	10,000	73000
	6,420	31,000

Degree of variability $\frac{31,000}{6,420}$ = 4.83

Assume Low:

10,000 (4.83)	=	48,300
Total cost		73,000
Fixed cost		24,700

For 8,000 units

Variable cost 8,000 (4.83)	38,640
Fixed cost	24,700
	₦63,340

Q20 Fixed cost = ₦24,700

EXAMINERS' REPORT

PATHFINDER

The questions cover a reasonable part of the syllabus and candidates demonstrated good knowledge and understanding of the questions. The performance was fair as about 50% of the candidates scored above average marks.

SHORT-ANSWER QUESTIONS

1. Management Audit
2. Attainable Standard
3. Sensitivity Analysis
4. ₦11.25 per product
5. Benchmarking
6. ₦1,866
7. ₦1,666.67
8. Just-In-Time
9. 6,000 units
10. Corporate Planning/Long Range Planning/Strategic Planning
11. Loss Leader
12. Sensitivity Analysis
13. Computer Aided Design
14. Downsizing/Rationalisation
15. Goal Congruence
16. Co-ordination
17. Sub-optimal decision making
18. Goal Congruence
19. ₦2million
20. Avoidable and Non-avoidable

WORKINGS

Q4 1ST Batch 2,000 units @ ₦20
2nd Batch 4,000 units @ ₦15 (₦20 @ 75%)
3rd Batch 8,000 units @ ₦11.25 (15 @ 75%)

Ans. = ₦11.25

Q6 ₦4,000 @ 0.4665 = ₦1,866.00

Q7 Discounted to perpetuity

$$= \frac{₦1,000}{0.15} = ₦6,666.67$$

Q9 Re-order Level = Maximum Quantity x Maximum Re-Order Period
= 200 units x 30 days.
= 6,000 units

Q19

Product	Sales	C/S ratio	Contribution	Fixed Cost
	i	ii	i x ii =iii	i- iii
			₦	₦
A	₦500,000	0.3	150,000	350,000
⇒ B	1,200,000	0.375	450,000	750,000
C	1,500,000	0.4	600,000	900,000

BEP @ fixed cost of ₦750,000

$$= \frac{\text{Fixed cost}}{\text{Contribution Margin Ratio or Contribution over Sales ratio}} = \frac{₦750,000}{0.375}$$

= ₦2,000,000

EXAMINERS'REPORT

The questions cover reasonable part of the syllabus. The candidates demonstrated lack of understanding and knowledge of principles and terminologies of the subject. The performance was poor as about 80% of the candidates scored below average.

SECTION B

SOLUTION TO QUESTION 1

CASE STUDY

NGOZI OBOKUN LIMITED

a.i The Net Present Value (NPV) of the projects

Project A

Yr.	NCF	DCF@20%	PV
0	(6,000,000)	1.0000	(6,000,000)
1	723,000	0.8333	602,476
2	8,790,000	0.6944	6,103,776
2	200,000	0.6944	138,880
	NPV		845,132

Project B

Yr.	NCF	DCF@ 20%	PV
0	(6,000,000)	1.0000	(6,000,000)
1	3,930,000	0.8333	3,274,869
2	5,160,000	0.6944	3,583,104
2	139,000	0.6944	90,272
	NPV		948,245

a.ii The Internal Rate of Return (IRR) of the projects.

Project A

1. Positive and Negative NPV

Yr.	NCF	DCF@20%	PV	DCF@35%	PV
0	(6,000,000)	1.0000	(6,000,000)	1.0000	(6,000,000)

1	723,000	0.8333	602,476	0.7407	535,526
2	8,790,000	0.6944	6,103,776	0.5487	4,823,073
2	200,000	0.6944	138,880	0.5487	109,740
	NPV		845,132		(531,661)

The IRR = 20% + ((845,132/(845,132+531,661)x(35-20)) = 29.21%

Project B

1. Positive and Negative NPV

Yr.	NCF	DCF@20%	PV	DCF@35%	PV
0	(6,000,000)	1.0000	(6,000,000)	1.0000	(6,000,000)
1	3,930,000	0.8333	3,274,869	0.7407	2,910,951
2	5,160,000	0.6944	3,583,104	0.5487	2,831,292
2	130,000	0.6944	90,272	0.5487	71,331
	NPV		948,245		(186,426)

The IRR = 20% + ((948, 245/(948,245+186,426))x(35-20)) = 32.54%

a.iii. Based on the computation above, Project B should be undertaken because it gives a higher Net Present Value and yields a higher Internal Rate of Return.

b.i
- While NPV gives an absolute figure, IRR is presented percentage figures.
- While NPV gives a clear accept or reject decision, IRR only indicates the returns of project.
- NPV makes it easier to choose among projects, while IRR only indicates the returns and they are not comparable.

ii.
- By testing each project using each method.
- Using the organisation's cost of capital as base for the computation.
- Subjecting the rates to sensitivity analysis.

iii.
- It gives a clear accept or reject decision.
- Changes in interest rate over a period of time can easily be incorporated into the calculation.
- Risk can readily be incorporated into the discounting factor.

- It is an absolute measure of profitability and hence it immediately shows the changes in shareholder's wealth due to an investment decision.
- It is objective and highly favoured by investors because it reflects growth in wealth .
- NPV is more realistic.

EXAMINERS' REPORT

The question tests candidates' understanding of investment appraisal using Net Present Value (NPV) and Internal Rate of Return (IRR). The performance was fair as about 50% of the candidates showed a fair understanding of the computation aspect in part (a) of the question. About 60% did not understand the theoretical aspect in the part (b) resulting in loss of marks.

Candidates are advised to cover the syllabus fairly and understand the theoretical background of investment appraisal.

QUESTION 2

KETU SOFTWARE DESIGNERS NIG. LTD.
LIFE CYCLE COSTING (LCC)

(a) The product life cycle covers the time from initial Research and Development (R & D) to the time at which support to the customers is withdrawn. With the use of life-cycle budgeting, the directors can estimate the revenues and costs attributable to each product. Life-cycle costing will then help the company to track and accumulate the actual costs attributable to each product from start to finish called "cradle to grave costing".

The technique enables a firm to
(i) obtain useful details for target price of a product.
(ii) embark on cost savings by creating cost awareness which prevents cost centre overshooting planned costs.
(iii) avoid operational and product failure.

(b) UNIT SELLING PRICE TO BREAK EVEN IN YEARS 3-7 ALL COSTS REDUCED TO PRESENT VALUE AT 15% COST OF CAPITAL

DISCOUNT

Year	DETAILS	COSTS ₦	FACTOR 15%	PV ₦
1	Research and development	30,000,000	0.8696	26,088,000
2	Design costs	14,000,000	0.7561	10,585,400
2	Initial production for "test-market"	20,000,000	0.7561	15,122,000
2	Distribution cost	4,000,000	0.7561	3,024,400
2	Customer Service Costs	3,000,000	0.7561	2,268,300
	Present Value of total cost from R & D to customer service cost			57,088,100

Less: Revenue expected from 'test market
Discount 10,000 units @ ₦4,800 = ₦48,000,000 0.7561
(36,292,800)

20,795,300
Add: Discounted further costs
years 3 – 7 Cumulative Present
Value factor = 2.5340

3-7	Yearly production	210,000,000	2.5340	532, 140,000
3 -7	Yearly distribution cost	30,000,000	2.5340	76,020,000
3-7	Yearly customer service cost Cumulative Discounted Cost	36,000,000	2.5340	91,224,000

720,179,300

Yearly average discounted anticipated revenue to break-even at the end of year 7 = $\frac{₦720,179,300}{5}$

= ₦144,035,861

∴ Anticipated unit selling price to fix for the output of 3-7 years in order to break-even = ₦144,035,861 ÷ 150,000 units budgeted for the period.

= $\frac{144,035,861}{150,000}$

= ₦960.24
= ₦960.24 per software package

EXAMINERS' REPORT

The question tests candidates' understanding of Life Cycle Costing and its application to pricing a new product. Majority of the candidates lacked understanding of the topic. The performance was very poor. About 10% of the candidates that attempted the question scored below 25% of the marks allocated.

Candidates are advised to acquaint themselves with new techniques in Management Accounting.

QUESTION 3

(a)

JADESOLA SUPERMARKET

Activity Area	Mango Juice	Guava Juice	Pine Apple Juice	Total
Ordering	₦	₦	₦	₦
₦90 x 21:36:21	1,890	3,240	1,890	7,020
Delivery				
₦82 x 18:93: 28.5	1,476	7,626	2,337	11,439
Self-Stocking				
₦21 x 24: 258: 141	504	5,418	2,961	8,883
Customer support				
₦0.18 x 6900: 51300: 16125	1,242	9,234	2,902.5	13,378.50
	5,112	25,518	10,090.5	40,720.50

b. Advantages of Activity-Based Costing include the following:

(i) It assists in better identification of resources needs.
(ii) It provides cleaner linkage of costs with staff responsibilities.
(iii) It assists in identifying budgetary slack.
(iv) It provides better insight into what drives overhead costs.
(v) It recognises that overhead costs are not all related to production and sales volume.

(vi) Overhead costs can be controlled by managing cost drivers.
(vii) It can be applied to drive realistic costs in a complex business environment.
(viii) By understanding overheads and the drivers, wastages can be eliminated.
(ix) Appropriate pricing will be encouraged in a multi product companies.

EXAMINERS' REPORT

The question tests candidates' knowledge of Activity-Based Costing. Candidates demonstrated lack of understanding of the topic.

The performance was very poor as less than 12% of the candidates that attempted the question scored less than 50 per cent of the marks allocated.

Commonest pitfall is that the candidates are not conversant with this new concept.

Candidates are advised to research into the new techniques in Management Accounting.

QUESTION 4

FRANK, DAN AND SMITH LAW FIRM

(a) The corrected segmented income statement:

	Family Law	Commercial Law	Total
	₦	₦	₦
Revenue from clients	800,000	1,200,000	2,000,000
Variable expenses	200,000	240,000	440,000
Contribution margin	600,000	960,000	1,560,000
Traceable fixed expenses	560,000	780,000	1,340,000
Segment margin	40,000	180,000	220,000
Common fixed expenses			120,000
Net operating income			100,000

The firm would not be financially better off if the Family Law practice is dropped. The Family Law segment is covering all its own costs and is contributing ₦40,000 per month to cover the common fixed expenses of the firm. While the segment margin for Family Law is much lower than for commercial law, it is still profitable. More so, Family Law may be a service that the firm must provide to its commercial clients in order to remain competitive.

(b) The advertising campaign would increase the Family Law segment margin by ₦110,000 as follows:

	₦
Increased revenue from clients	200,000
Family Law Contribution Margin Ratio (600,000 ÷ 800,000) = 75%	
Incremental Contribution Margin (75% of 200,000)	150,000
Less cost of the advertising campaign	40,000
Increase in Segment Margin	110,000

Since there would be no increase in fixed expenses (including common fixed expenses), the increase in overall net operating income is also ₦110,000.

EXAMINERS' REPORT

The question tests candidates' understanding of the application of marginal costing technique in segment reporting and advertising decision.

Candidates demonstrated good understanding of the basic requirements of the question.

About 80% of the candidates that attempted the question scored above 50% of the allocated marks.

Candidates are advised to continue to improve on the standard.

QUESTION 5

(a)i. Activity Ratio $= \frac{\text{Standard Hours}}{\text{Budgeted Hour}} \times 100\%$

$= \frac{64,250}{65,000} \times 100\%$

$= 98.84\%$

This means that the actual level of production is less than the budgeted level of production by 1.16% (100% - 98.84%).

ii. Efficiency Ratio $= \frac{\text{Standard Hours}}{\text{Actual Hours}} \times 100\%$

$= \frac{64,250}{70,000} \times \frac{100\%}{1} = \underline{\underline{91.78\%}}$

This means that the actual level of production was achieved in more time than the standard time set for it. That is, 5,750 hours or 8.22% is below the normal efficiency level.

iii. Capacity Ratio $= \frac{\text{Actual Hours}}{\text{Budgeted Hours}} \times 100\%$

$= \frac{70,000}{65,000} \times 100\% = \underline{107.69\%}$

This means that the actual Hours worked were more than the budgeted hours by 7.69% or 5,000 hours.

WORKING

Computation of Standard Hours of Actual Production

PMS	=	48,000 x 40/60	=	32,000
DPK	=	27,000 x 30/60	=	13,500
AGO	=	25,000 x 45/60	=	18,750
			Total	64,250 Hours

Computation of Budgeted Hours

PMS	=	45,000 x 40/60	=	30,000
DPK	=	25,000 x 30/60	=	12,500
AGO	=	30,000 x 45/60	=	22,500
			Total	65,000 Hours

(b) Cost Reduction is an active and dynamic process which attempts to extract more from the factors of production without loss of effectiveness and thus targeted at material costs in areas of quantity discounts, inventory management, value analysis, work study and enactment of procedures to reduce wastages, enhance labour and production efficiency and in-planting cash monitoring efforts and processes.

On the other hand, Cost Control leads to a reduction in excessive spending, use of control techniques such as Budgetary Control procedures, Standard Costing techniques, Variance Analysis in controlling costs.

Under Cost Control, the process of target setting and feedback mechanism are put in place to monitor performance to ensure the achievement of set target, while deviations, whenever they occur, are corrected.

Hence, it is agreed that cost reduction activities are planned efforts to reduce expenditure while cost control action involves all methods of controlling costs within a pre-determined target.

Similarities and differences between cost control and cost reduction
Cost Control and Cost Reduction have similar features such as

i) They both ensure efficient utilization of resources.
ii) They also require pre-setting of a target after an initial Cost Analysis.

The Differences include the following

i) While Cost Reduction is temporary and ad-hoc in nature, Cost Control is on- going.
ii) While Cost Reduction aims to reduce costs from some pre-determined target without reducing the benefits derived from the product made or service rendered, Cost Control is static with the basic objectives of containing cost within a preset target.
iii) Their objectives differ. While Cost Reduction is planned to reduce expenditure, Cost Control is planned to control costs using various methods and techniques.

EXAMINERS' REPORT

The question tests candidates' understanding of Cost Control ratios as related to production in Cost Accounting and the difference between Cost Reduction and Cost Control.

The candidates showed a poor understanding of the question hence, the performance was poor as about 35% of the candidates scored less than 50% of the allocated marks.

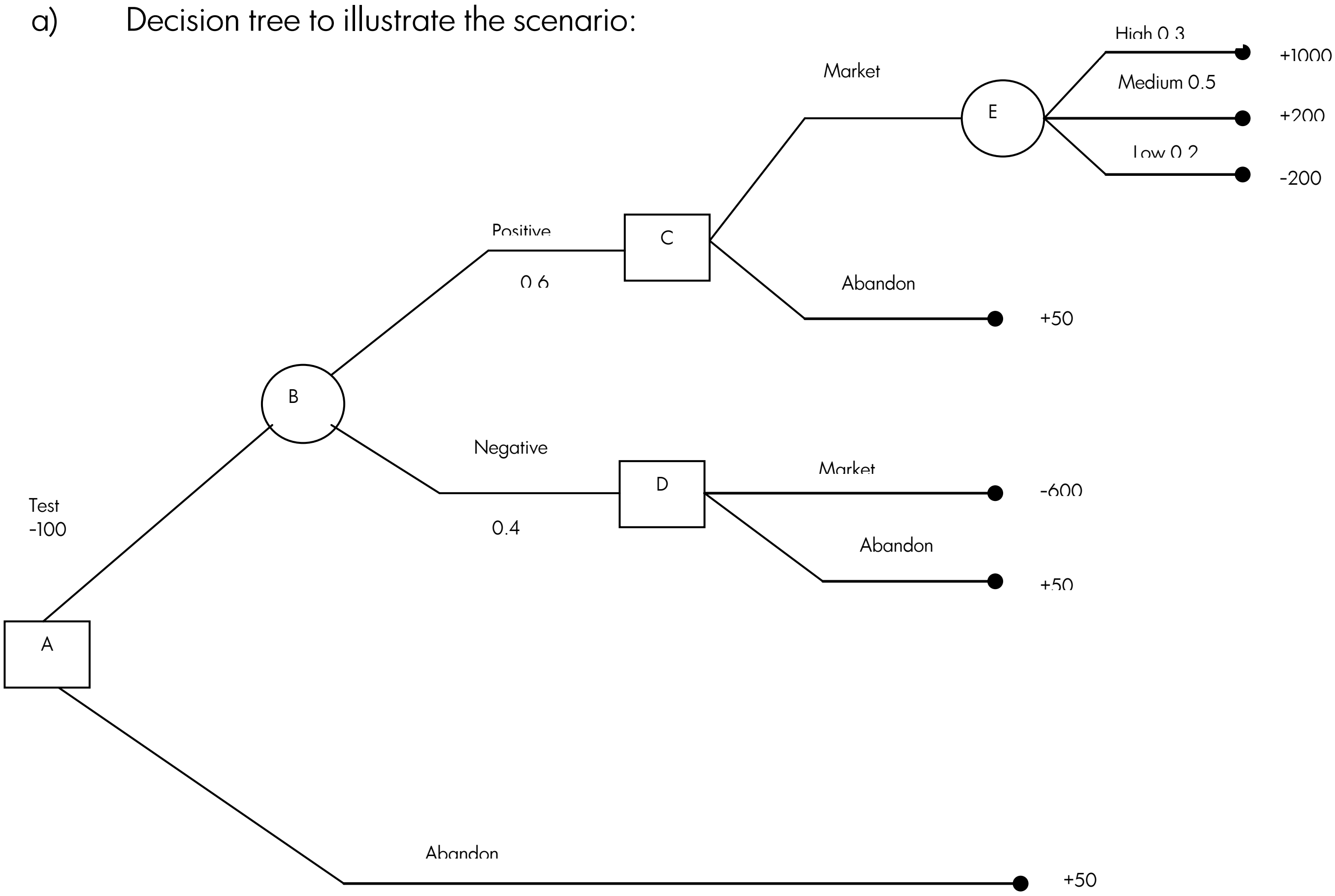
Most of the candidates did not know how to calculate activity, efficiency and capacity ratios. Also, they demonstrated poor understanding of Cost Control and Cost Reduction techniques.

Candidates are advised to get themselves familiar with all Cost Control techniques and improve on their knowledge of Cost Accounting.

QUESTION 6

ADEX LIMITED

a) Decision tree to illustrate the scenario:



b) <u>Evaluating the decision using the decision tree</u>

At point E, the expected value is computed as follows:

Profit	Probability	
X	P	P x

	₦'000		₦'000
High	1000	0.3	300
Medium	200	0.5	100
Low	(200)	0.2	(40)
		Expected value	360

This is the expected value of the decision to market the product

If the test shows a positive response.

At point C, the choice is as follows:

(i) Market expected value = ₦360,000
(ii) Abandon value = ₦50,000

The choice would be to market the products, and so, the expected value at decision point C is ₦360,000

At decision point D, the choice is as follows:

(i) Market value = - ₦600,000
(ii) Abandon value = + ₦50,000

The choice would be to abandon, and so, the expected value at a decision point D is ₦50,000

The evaluation of the decision tree is completed as follows:
(a) Calculate the expected value at outcome point B
0.6 x 360,000 + 0.4 x 50,000 = ₦236,000

(b) Compare the options at point A as follows:
(i) Test: Expected value = Expected value at B minus test marketing cost:
= ₦236,000 - ₦100,000 = ₦136,000
(ii) Abandon value = ₦50,000

Decision: The choice would be to test market the product, because it has a higher expected value of profit of ₦136,000

EXAMINERS' REPORT

The question tests the application of decision tree in business decision.

Candidates demonstrated poor understanding of the application decision tree and could not draw the tree correctly.

The inability to interprete the decision tree and use it to decide between alternative causes of action was their commonest pitfall.

Performance was very poor as no candidates scored up to 25% of the allocated marks.

Candidates are advised to bring to bear their knowledge of the application of quantitative technique in Management Accounting in their preparations for future examinations.