THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
INFORMATION TECHNOLOGY

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. The following factors can be used to evaluate Cloud-based services **EXCEPT:**
   A. total cost of ownership
   B. hardware, software and maintenance considerations
   C. best fit for your business process
   D. security risk
   E. working in an off-line environment.

2. The following services are provided by Cloud Computing **EXCEPT**
   A. On-Premises IT model
   B. computing power accessed over the Internet
   C. a technology that becomes your server and data centre
   D. inexpensive application that users can access on demand from any location
   E. access to an application through a variety of devices.

3. The analysis of information contained and created with computer systems and computing devices with the view to generating electronic evidence and for the purpose of resolving allegations of computer fraud or crime describes which **ONE** of these?

   A. Computer analysis
   B. Computer investigations
   C. Computer fraud
   D. Computer forensic
   E. Computer laboratory services.

4. When performing a Computer Forensic Analysis, we must do everything possible to protect the original media and
   A. data
   B. information
   C. file
   D. documents
   E. outputs

5. The following materials are part of computer related evidence **EXCEPT**
   A. Hard Drives
   B. Floppy Disks
   C. Log Files
   D. Keyword Searches
   E. Gigabytes Documents

6. Some of the Graphical User Interface (GUI) tools that can be used in the interpretation of an evidence include the following **EXCEPT**

   A. Hyperlinks
   B. Search Engines
   C. Web Pages
   D. Database Files
   E. Traditional Manual Files.

7. Which **ONE** of the following is **NOT** a function of an Operating System?
   A. memory management
   B. access control
   C. time-sharing
   D. providing multitasking sessions
   E. data analysis and reporting

8. A Graphical User Interface concept is usually which **ONE** of these?
   A. text-oriented
   B. command-oriented
   C. object-oriented
   D. menu-driven
   E. a high-level language.

9. All of the following are examples of a Network Operating System **EXCEPT**
   A. Windows NT
   B. Novel Netware
   C. Windows 2003 Advanced Server
   D. Windows for workgroup
   E. O/S 2

10. Which of the following Operating Systems drives a typical multi-user environment?

   A. Windows XP
   B. Windows 7
   C. SAP
   D. Unix
   E. Server 2000

11. File management functions are usually carried out by which **ONE** of the following software?

A. Application software
B. Database Management System
C. Operating system
D. Utility software
E. Security software.

12. An emerging technology derived from the use of third-party offshore IT facilities rather than on-premises IT facilities, is best described as
A. Emerging issues in IT
B. Emerging issues in Telecommunication
C. Emerging issues in Internet
D. Cloud computing
E. Forensic computing

13. A protocol that regulates the internet and mobile wireless application describes
A. Wireless protocol
B. Wireless application protocol
C. Wireless web application protocol
D. Wireless hypertext protocol
E. Wireless mark-up language protocol.

14. A wireless technology that allows digital cameras, headsets, and scanners to connect to computer when in close range is effected in:
A. Packet switching
B. Blue tooth
C. System interconnection
D. Ethernet technology
E. Broadcast Networks

15. ERP is an acronym for the following
A. Enterprise Resource Program
B. Enterprise Resource Programme
C. Enterprise Resource Project
D. Enterprise Resource Planning
E. Enterprise Resource Programming.

16. A basic data element which consists of a single alphabet, numeric or other symbol is called
A. field
B. record

C. character
D. file
E. bits

17. A set of symbols that contains alphabets and numeric digits is called --------
    A. alphabetic
    B. alphanumeric
    C. special
    D. numeric
    E. bits.

18. A set of well defined rules of processes for the solution of a problem in a finite number of steps is called ----------------
    A. statement
    B. algorithm
    C. sequence
    D. iteration
    E. logic.

19. To detect, locate and remove errors from a program is to ------- the program.
    A. decode
    B. rewrite
    C. debug
    D. unbug
    E. rebug.

20. To modify, locate and rearrange data is to ------- data.
    A. field
    B. edit
    C. refine
    D. reset
    E. resort

PART II SHORT ANSWER QUESTIONS (20 Marks)

1. A transfer of control from one instruction to another in a computer program that is not part of the normal sequential execution of the instruction of the program is called -------

2. The process of converting data into a form suitable for computer processing is called -----------

3. A movable point-of-light displayed on most video display screens to assist the ` user in the selection of data is called -------

4. The name given to a form of decentralisation of information processing made possible by a network of computers dispersed throughout an organisation is ---------- processing.

5. A routine in a program that controls the execution of other routines is called ------- routine.

6. Scalability is one of the ------- of using Cloud Computing.

7. Cloud Computing ---------- the ongoing costs of traditional on-premises maintenance and upgrades.

8. IT personnel can turn Cloud Computing into competitive -----------

9. When launching into Cloud Computing, Companies may experience some -------- when employees are asked to move away from familiar work habits, routines and applications.

10. The array of Cloud Computing services available to businesses, is called ----------

11. Cloud Computing has a different set of risk factors than operating an ---------- Data Centre.

12. Anyone who does his/her Banking activities over the Internet or purchases something from a web-based shop or used an instant messaging service, has experienced -------- based application.

13. The identification, extraction, interpretation, preservation and documentation of computer evidence is called -------------

14. The process of ascertaining possible containers of computer related evidence such as Hard Drives, Floppy Disks and Log Files is called ----------

15. Process of getting any evidence relevant to the situation in Computer Forensics using Working Copy Media, is called -----------

16. Two notable tests that law courts can apply to the methodology and testimony of an expert in order to determine admissibility, reliability and relevance are ---------- and ------

17. In tracing the origin of Network Operating System, one must always remember …………………as the 'Grand Father'.

18. Middleware is a …………….. that facilitates transparent access for users across a wide range of internet resources.

19. While Application Software performs business-oriented tasks, System Software performs ----------

20. The user interface for Disk Operating System (DOS) is usually described as ------- driven.

SECTION B – ANSWER QUESTION 1 AND ANY OTHER THREE (60 MARKS)

QUESTION 1- CASE STUDY

MATTY TOYS

Matty Toys Plc is a major toy manufacturer. Users' requests for products are usually passed on to the Computer Department, for detailed analysis by the Systems Analyst, who will meticulously examine the requests and determine the problem content and by extension customers' requirements. The Analyst assumes that the System will be built the way the customers have requested but still looks to see if there is a better way. The Analyst is expected to make a basic problem definition. What is the business problem? What is the user department management trying to accomplish with the new system? Is this a one-time problem or a recurring one? Next, the Analyst develops a preliminary design of the new System including simple output reports, just as would be produced by the new System. The Analyst discusses the reports with the users to determine their appreciation of the proposed solution. This step usually uncovers further needs and/or requirements and more changes to be accommodated in the design. With the preliminary design developed, the Analyst is then in a position to estimate development costs, operating costs and maintenance costs.

Required:

(a) Explain **SIX** steps Matty Toys Plc will adopt in the development of the Computer based system. (9 Marks)

(b) List **FOUR** elements of each of the following costs in System Development:
   (i) Development costs
   (ii) Operating costs
   (iii) Personnel costs (12 Marks)

(Total 21 Marks)

QUESTION 2

(a) Define the term "Software as a Service" (SaaS) (3 Marks)
(b) Identify and briefly describe **FIVE** factors that can be used in evaluating Cloud Computing. (10 Marks)

(Total 13 Marks)

QUESTION 3

(a) With the aid of diagrams, write short notes on each of the following:

(i) Peer-to-Peer Network
(ii) Client-Server Network
(iii) Local Area Network (9 Marks)

(b) (i) What is a Distributed Processing System?

(ii) List any **TWO** important features to be considered in a Distributed System. (2 Marks)

(Total 13 Marks)

QUESTION 4

(a) (i) What is a Digital Certificate? (2 Marks)
(ii) Enumerate any **FOUR** basic requirements of a Digital Certificate. (4 Marks)

(b) Mr. John Fadipe, a trader in Lagos, uses a Digital Signature to make a document that will only be private to Mr. James Okoro who resides in London.
Briefly explain the procedure of the communication in order that Mr. James ensures the autheticity and integrity of the document being sent. (7 Marks)

(Total 13 Marks)

QUESTION 5

(a) (i) Describe a Security Assessment Tool (SAT). (2½ Marks)

(ii) List any **TWO** areas that can be included in an organisation's Security Assessment Programme. (2 Marks)

(b) Mention any **TWO** sub-systems of a typical Human Resources Management software and explain them. (4 Marks)

(c) (i) State any **TWO** goals of IT Asset Management (ITAM). (2 Marks)
(ii) Outline **FIVE** examples of ITAM process. (2½ Marks)

(Total 13 Marks)

QUESTION 6

(a) IT has become a key enabler of business. What is IT Risk management? (5 Marks)

(b) Give three objectives of Risk Management in an organisation. (3 Marks)

(c) Committee of Sponsoring Organisations (COSO) has been recognised as a global framework for internal controls. Identify and describe the components of this framework. (5 Marks)

(Total 13 Marks)

SOLUTIONS TO SECTION A

PART I MULTIPLE-CHOICE QUESTIONS

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

PART II SHORT ANSWER QUESTIONS

1. branch
2. data entry
3. cursor
4. distributed
5. Main/Executive/Supervising
6. advantages
7. minimises/eliminate
8. advantages
9. resistance
10. mushrooming
11. On-premises
12. Cloud
13. Computer Forensics
14. identification
15. extraction
16. Daubert and Fyre
17. Novel Network
18. software
19. interface-related tasks
20. command

SOLUTIONS TO SECTION B

SOLUTION 1 - MATTY TOYS PLC

(a) The expected approach to system development includes:

(i) Basic problem identification and definition.

(ii) Identification of business problems.

(iii) Understanding the expectations of user management.

(iv) Finding out whether the problem of the new system is a one–time issue or recurrent.

(v) Develop a preliminary design of the new system.

(vi) Conduct a structured walk–through process.

(vii) Estimate costs. (9 Marks)

(b) The Different Costs:

(i) Development costs of
- measuring and analysing existing system
- looking at the new system
- software/consultancy work
- changeover (4 Marks)

(ii) Operating costs of
- consumables
- Software Maintenance
- Accommodation for project members
- Power Supply
- Contingencies

(4 Marks)

(iii) Personnel Costs
- Staff Training
- Staff recruitment/relocation
- Staff salaries, allowances and pension
- Redundancy payment
- Overtime payment
- Overheads (4 Marks)

(Total 21 Marks)

SOLUTION 2

(a) Software as a service (SaaS), is a model of software deployment where an application is hosted as a service provided to customers across the Internet, by eliminating the need to install and run the application on the customer's own computer. SaaS alleviates the customer's burden of software maintenance, and operational support.

(b) Some of the factors to be considered in evaluating Cloud Computing are:

Cost of ownership – Lower client hardware costs, faster implementation, and lower license costs

(i) Hardware, software and maintenance considerations – In a Cloud- based computing environment, computer memory speed and disk space are not so significant because data is stored and computation occurs "in the cloud", for software a key issue is managing updates. Typically, in cloud-based computing , updates trickle in incrementally.

(ii) The best-fit for business processes - When comparing systems, some Cloud based applications may not have the feature and depth of their traditional on-premises counterparts. However, some activities such as document sharing and setting up work groups on the fly may be easier with cloud based applications.

(iii) The Security Risks – In a Cloud based environment, physical security is stronger because the loss of a client system does not compromise data or software.

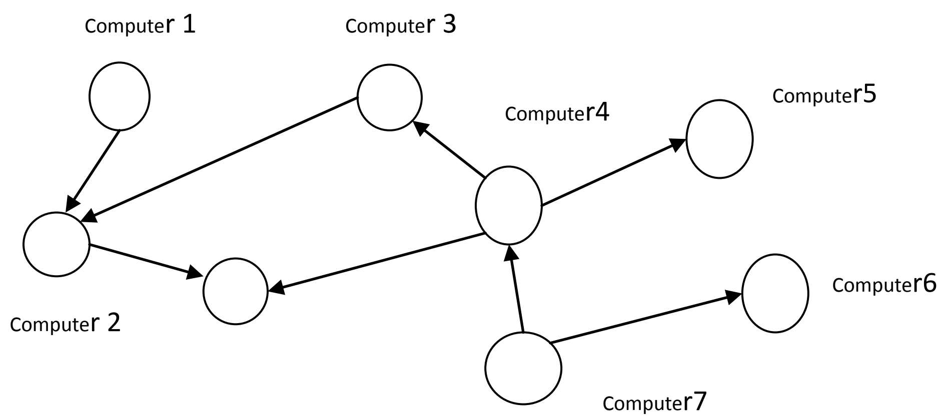
(iv) Working in an off-line environment – With on-premises applications, employees usually can access some key information even when on-line access is not available. Cloud applications may address the issue quite well.

SOLUTION 3

(a) (i) **Peer-to-Peer Network**

Peer-to-peer Network is an approach to computer networking where all computers share equal responsibilities for processing data. This is common to a small number of computers where sharing of hardware resources, such as printers, scanners etc, software and/or information run on the same networking protocols.

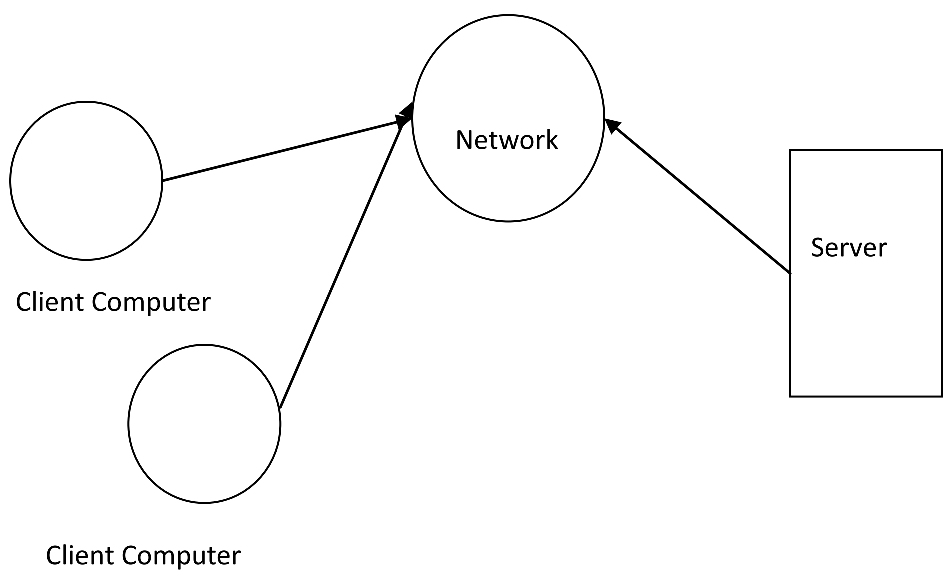
All computers on the network handle security and administration for themselves. A Peer–to-Peer Network may be set up using the existing phone wiring cable or with Ethernet cards.



A Peer-to-Peer Network

(ii) **Client-server Network**

This is a computing environment where end-users workstations or clients are connected to network servers in order to share hardware, software, as well as data resources. With the Client-Server Network, there are some elements of security on the resources used.

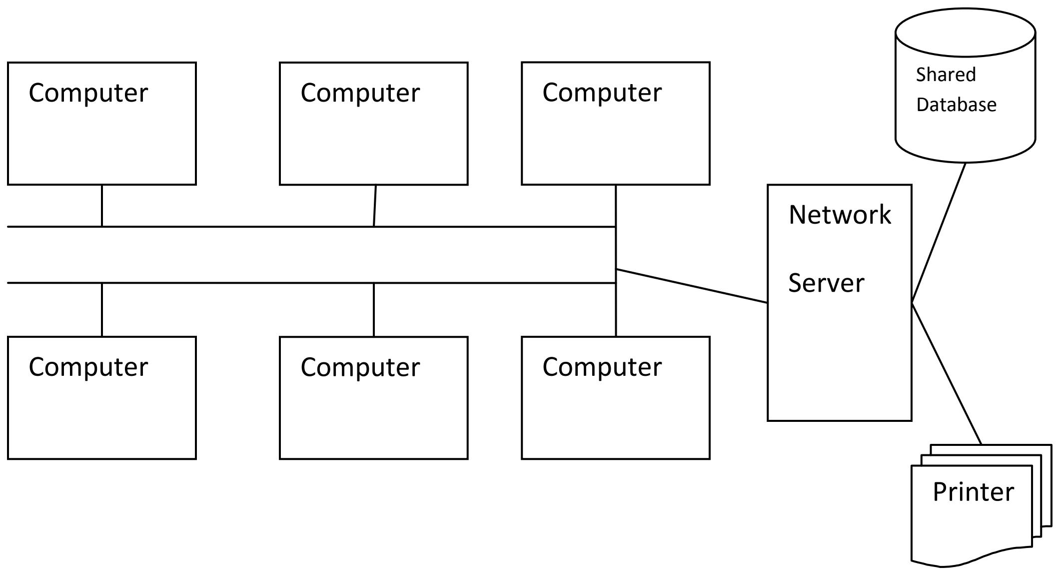


Client-Server Network

(iii) **Local Area Network (LAN)**

This is a communication network that typically connects computers. terminals and other devices within a limited physical area such as an office, building, or within an organisation.

It uses a variety of telecommunication media such as, telephone, wiring, cables or even wireless radio and infrared systems to interconnect these computers. It also has a network server and uses a network operating system.



Local Area Network

(b)

(i) A Distributed Processing System

This refers to a processing in which workload that might conceivably be done on a single computer system is divided among two or more computers located at different locations.

(ii) Important features to be considered in a Distributed System include:

- The location of processing and the types of interaction between them.
- The location of data storage and the way data is presented to users.
- The nature of the communication links between the various locations.
- The standards governing the nature of the communication (i.e. Protocols) e.g. RTU, $X_{x,}$ IEE

SOLUTION 4

(a) (i) A Digital Certificate gives the user a sense of legitimacy and formalizes a process. It makes it possible to verify someone's claim that, he/she has a right to use a given Public Key, and helps to prevent others from using phoney keys to impersonate the user.

(ii) The basic requirements of a Digital Certificate include:
- Owner's Public Key
- Owner's name
- Expiration date of Public Key
- Name of the issuer-Certificate Authority (CA), (that issued the Digital Certificate)
- Serial number of the Digital Certificate
- Digital Signature of the owner.

(b) Mr. John Fadipe sends in the signed document to Mr. James Okoro.

- Mr. James Okoro uses the Certificate Authority's Public Key to check the signature on Mr. John Fadipe's Certificate.

- If Mr. James is able to de-encrypt that Certificate, he will be assured that it was created by the Certificate authority.

- Once the Certificate is successfully de-encrypted Mr. John Fadipe uses his software to check whether Mr. John Fadipe is still registered with the Certificate Authority and that all Certificate information concerning Mr. John Fadipe has not been altered.

- Mr. James Okoro software now takes Mr. Fadipe's public key from the Certificate to check the sender's signature. Once he is able to decode this successfully he is assured that the document was really created by Mr. John Fadipe. If signature is not valid it means an intruder tried to change the document.

SOLUTION 5

(a) Security Assessment Tool (SAT): Security Assessment Tool is a software tool designed to help organizations assess weaknesses in their Information Technology framework, reveal a prioritized list of issues, and help provide specific guidance to minimize perceived risks. Security Assessment is a comprehensive analysis of internal and external technical vulnerabilities, and related regulatory Gap-Analysis. An example is the Microsoft Security Assessment Tool (MSAT) which is a risk-assessment application designed to provide information and recommendations about best practices for security within an Information Technology (IT) Infrastructure.

The areas that can be included in a typical organizational security assessment include:

- Infrastructure.
- Authentication Policies and Procedures
- Workstations
- Applications
- Operations
- Patches and Updates
- People, Policies and Procedures

b) The sub-systems of typical Human Resources Software include:

- Payroll
- Work Time
- Benefits Administration
- HR management Information System
- Recruiting
- Training/ Learning Management System (LMS)
- Performance Record

(i) **The payroll module:** This automates the pay process by gathering data on employee's time and attendance, calculating various deductions and taxes, and generating periodic pay slips and employees' tax reports. Data is generally fed from the human resources and time keeping modules to calculate automatic deposit and manual cheque writing capabilities. This module can include all employee-related transactions as well as integrating with existing financial management systems.

(ii) **The benefits administration module:** This module provides a system for organizations to administer and track employee participation in benefits programs. These typically include; insurance, compensation, profit sharing and retirement benefit schemes.

(c) The goals of IT Asset Management (ITAM) is the set of business practices that join financial, contractual and inventory functions to support life cycle management and strategic decision making for the IT environment. Assets include all elements of software and hardware that are found in the business environment.

ITAM has the following objectives/goals:

- Induce savings through process improvement and support for strategic decision making.
- Gain control of the inventory.
- Increase accountability to ensure compliance with policies and procedures.
- Enhance performance of assets and the life cycle management.
- Risk reduction through standardization, proper documentation, and loss detection.

(d) The following are five examples of ITAM process:

(i) IT asset procurement process comprising:
- Request for IT Assets Procurement
- Process Procurement Information Request
- Process IT Asset Request
- Track Purchase Orders
- Receive IT Asset into store

(ii) Manage IT Asset Inventory sub-process comprising:
- Update IT Asset Inventory
- Perform / Audit Inventory
- Resolve Inventory Exceptions

(iii) Manage IT Asset Operations sub-process covering:
- Monitor IT Asset Operations
- Handle IT Asset Software Life cycle Events
- Handle IT Asset Hardware Life cycle Events
- Handle Lease Event

(iv) Manage IT Asset Accounting Events covering:
- Charge back
- Manage Accounts Payable

(v) Return/Dispose IT Asset
- Prepare IT Asset for Return or Disposal
- Return IT Asset
- Dispose IT Asset

SOLUTION 6

(a) IT risk management is the process of identifying and assessing possible risks an information system is exposed to, reducing it to an acceptable level, and implementing the appropriate and right mechanisms to maintain that level. It is the total process of identifying, controlling, and mitigating information system–related risks. It includes risk assessment; cost-benefit analysis; and the selection, implementation testing and security evaluation of safeguards. IT risk management process considers both effectiveness and efficiency, including impact on the IT mission and constraints due to policy, regulations, and laws.

(b) The objective of performing risk management is to enable the organization to accomplish its mission(s)

(i) by better securing the IT systems that store, process, or transmit organizational information;

(ii) by enabling management to make well-informed risk management decisions to justify the expenditures that are part of an IT budget; and

(iii) by assisting management in authorizing (or accrediting) the IT systems on the basis of the supporting documentation resulting from the performance of risk management.

(c) The components of the Commission of Sponsoring Organisations (COSO) framework are identified and described as follows:

(i) Internal Environment – Management sets a risk philosophy and establishes the entity's risk culture and risk appetite.

(ii) Objective Setting – Management considers its risk appetite in the setting of objectives.

(iii) Event Identification – Management identifies the events, both internal and external, that present risks or opportunities to the organization. Opportunities are channelled back to strategy and objective-setting processes.

(iv) Risk Assessment – the likelihood and impact of risks are assessed to clarify the extent to which they might impact objectives. This employs a combination of qualitative and quantitative methodologies and forms a basis for the management of those risks.

(v) Risk Response – management makes the decision as to whether the risk should be avoided, accepted, reduced, or shared; and then develops a set of actions to align the risks with the organization's risk tolerance.

(vi) Control Activities – policies are established to ensure management's risk responses are carried out effectively.

(vii) Information and Communication – thorough and timely communication takes place to ensure that roles and responsibilities can be performed effectively in the process of identifying, assessing, and responding to risk and

(viii) Monitoring – ongoing monitoring occurs, and modifications are made as warranted.

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SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. One of the following is **NOT** a type of Network Topology
   A. Mesh
   B. Star-Ring
   C. Ring
   D. Bus
   E. Star-Mesh.

2. A Ring Topology Network is said to be effective because
   A. Every computer on the network sits on a ring
   B. The presence of a repeater strengthens communication signals
   C. Access to the media is sequential
   D. Reconfiguration of a ring network is simple
   E. It is easy to troubleshoot in cases of failure.

3. When considering the choice of network cable to use, one must consider the following:
   (i) Transmission bandwidth
   (ii) Cost
   (iii) Presence of interference such as EMI and RF
   (iv) The type of business and Operating System in use
   A. (i), (ii) and (iv)
   B. (i) only
   C. (ii) and (iv) only
   D. (iii) and (iv) only
   E. (i), (ii) and (iii) only.

4. One of the transmission media in a wireless network installation is
   A. TCP/IP
   B. Infra-Red
   C. Repeater
   D. Ring
   E. FTTP.

5. In a medium sized accounting office with just about three accounting staff, and a turnover of a little less than nine hundred million Naira (₦900m); which of the following software is most suitable for automating the accounting function?
   A. Microsoft Excel Spreadsheet
   B. Lotus 1-2-3
   C. SuperCalc
   D. Sage Pastel
   E. Oracle Financials

6. An application that manages a multi-tier connectivity, allowing one or more machines to interact over the network is known as:
   A. Access Control Software
   B. Database
   C. Middleware
   D. Utility Software
   E. Security Software

7. Which of the following processes depicts a Workflow Application?
   A. Windows Operating Systems.
   B. An application which ensures that users on different job scales are properly controlled.
   C. An application which ensures that at least one business process is automated.
   D. An application that ensures that security is not compromised in the course of executing work processes.
   E. An application that gives rights to users only on a need-to-know basis.

8. A request for specific data or information is termed
   A. Decode
   B. Debug
   C. Retrieve
   D. Unbundle
   E. Query

9. Establishing the accuracy of input data is called_______________
   A. Verification
   B. Update
   C. Edit
   D. Validation
   E. Consolidation

10. The two basic types of electronic data processing are Batch and _________
   A. Distributed

B. Transaction
C. Real-Time
D. Manual
E. Centralised

11. Running several programs simultaneously is called
   A. Multiprogramming
   B. Multiprocessing
   C. Multitasking
   D. Collective Programming
   E. Group Processing

12. A device which enables computers to communicate with each other using telephone lines is termed__________
   A. Plotter
   B. Printer
   C. Protocol
   D. MODEM
   E. Multiplexor

13. Which of the following is **NOT** a reason for using Digital Security?
   A. It ensures confidentiality and that messages can be read by anybody.
   B. There is an assurance that the user is whom he/she claims to be.
   C. Digital Certificates ensure data integrity.
   D. It gives the user the peace of mind that the message or transaction has not been accidentally or maliciously altered.
   E. It verifies date and time so that senders or recipients cannot dispute that the message was actually sent or received.

14. Which **ONE** of these statements differentiates a Worm from a Virus?
   A. attaches itself to a program.
   B. reproduces itself
   C. has capability to travel without any human action across networks.
   D. can be attached to executable files
   E. may damage or corrupt data.

15. The speaker, mouse, printer, scanner and flash drive are examples of ……….. devices.
   A. multimedia
   B. input
   C. output
   D. peripheral
   E. input/output.

16. Which of the following statements is **NOT** true for process of checking Digital Signature?
    A. Recipients of documents use Certificate Authority's private key to check the signature on the sender's certificate.
    B. Senders will forward a signed document to the recipient.
    C. Recipient software uses the sender's public key from the certificate and uses it to check sender's signature.
    D. Once the Certificate is de-encrypted, the recipient software checks if the sender is in good standing with the Certificate Authority and that there are no alterations on the information on sender's identity.
    E. An intruder did not try to change the signed content once the signature has been found valid.

17. Which of these refers to a Seal of Assurance that will be put up on the website to assure the customers that they are dealing with people whose business policies are unquestionable? Web
    A. security
    B. transaction
    C. certification
    D. trust
    E. recognition

18. Gigahertz is the unit that measures
    A. storage
    B. frequency
    C. time
    D. transmission speed
    E. mercury

19. Personal Digital Assistants (PDAs) are examples of ---------- Computers.
    A. Desktop
    B. Notebook
    C. Handheld
    D. Laptop
    E. Mini

20. Which of the following is **NOT** true of Digital Certificate?
    A. It contains the sender's Private Key.
    B. It contains the recipient name and address.
    C. It has the expiry date for the Private Key
    D. It has the name of the issuer of the Digital Certificate.
    E. It has the Digital Signature of the recipient.

PART II SHORT ANSWER QUESTIONS (20 Marks)

1. The UNIVAC and ENIAC computers are examples of ---------- generation computers.

2. Printers that eject stream of special ink through a fine nozzle to form the characters that are painted on the paper are called -----------------

3. The physical connection between the network and the computer workstations or nodes are being provided by ------------

4. A digital information on a product (e.g. textbooks, articles in a shop) is a ……….

5. CD-ROM and DVD are examples of -------------- storage.

6. A record that is written onto a local drive of a web-browser as a result of a command issued by a Web Server is called ------------

7. The unit of measure of a Computer's processing speed is -----------

8. Screens that provide visual display for portable microcomputers and PDA's through the use of flat screen or flat panel are called -----------------

9. What is the name given to the unit that provides the communication of information between nodes or workstations on a network?

10. The three ways in which a file can be accessed are serial, sequential and -------

11. Systems documentation associated with a program, which provides information necessary for the successful usage of a computer software is ---------

12. After a system has passed system test, -------- testing is carried out by the user department.

13. A system that interacts with other systems is referred to as ----- system.

14. A computer financing option which involves instalmental payment is either a hire purchase or …………….

15. Tests carried out to compare the performance of a piece of hardware or software against preset criteria are --------

16. A software used for automating a sequence of operations is called ……………..

17. A two-way authentication method (i.e. something you know and something you have) are common attributes of an authentication and access control procedure, one major drawback of this security procedure is that it can be ………………….

18. When a single password is used to access a variety of system resources, such a password is described as ……………

19. In order to keep intruders and hackers at bay, organisations usually install ……… in their server interfacing with the Operating System (OS).

20. Anti-virus programs should be …………regularly.

SECTION B – ANSWER QUESTION ONE AND ANY OTHER THREE (60 MARKS)

QUESTION 1 - CASE STUDY

MI COMPANY LIMITED

MI COMPANY LTD has been operating for many years and has automated **only** its General Ledger operations.

In line with the objectives and growth plan of the organization, the management has resolved at its last meeting to implement an Enterprise-wide computer based Information System covering all areas of operations.

The organization has computer systems in place, though many of them are old and there is no network in place. Internet access is done through the laptop of the Chief Accountant. The organization plans to open new sales offices in three major capital cities to improve national coverage and sales.

You have been appointed as the Project coordinator.

Required:

(a) Identify and discuss the steps necessary to implement this project (14 Marks)

(b) Highlight the risk elements in each identified phase of the project and how you plan to:
   (i) reduce their effect on the organization, and
   (ii) ensure that the project succeeds. (7 Marks)

(Total 21 Marks)

QUESTION 2

IT Risks have been identified as major threats to organisational success. Identify **FOUR** ways to deal with IT risks and describe **TWO** of them in detail. **(13 Marks)**

QUESTION 3

In System Development changeover phase, several methods are used, two of which are Parallel and Direct method.

(a) Explain these **TWO** methods. (4 Marks)

(b) Give **THREE** advantages of each. (6 Marks)

(c) Give **THREE** disadvantages of parallel method. (3 Marks)

(Total 13 Marks)

QUESTION 4

(a) Briefly explain the usefulness of an Integrated Development Environment (IDE) (3Marks)

(b) (i) What is a Database Management System (DBMS) ? (2 Marks)

(ii) Give any **FIVE** characteristics of a DBMS. (5 Marks)

(c) Explain the difference between Data Definition Language (DDL) and Data Manipulation Language (DML) (3 Marks)

(Total 13 Marks)

QUESTION 5

(a) In ensuring that organisations are safe from incessant virus attacks, they deploy a "Sheep Dip". Describe this concept. (2 Marks)

(b) Write short notes on each of the following:

(i) Virus and Worms

(ii) Trojan Horse

(iii) Logic Bomb

(iv) Time Bomb (8 Marks)

(c) Differentiate between a Single-User and Multi-User Operating Systems (OS). (3 Marks)

(Total 13 Marks)

QUESTION 6

(a) List the **THREE** generations of mobile telephony (3 Marks)

(b) List **FOUR** categories of channel in a first generation mobile phone. (4 Marks)

(c) Give the meaning of the following digital voice acronyms:

(i) D-AMPS

(ii) GSM

(iii) CDMA (3 Marks)

(d) Explain the function of Application layer in the OSI model. (3 Marks)

(Total 13 Marks)

SOLUTIONS TO SECTION A

PART I MULTIPLE CHOICE QUESTIONS

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

PART II SHORT ANSWER QUESTIONS

1. First
2. Inkjet printers
3. Network Interface Card (NIC)
4. Barcode
5. Magnetic
6. Cookies
7. Hertz
8. Liquid Crystal Display (LCD)
9. File Server
10. Direct
11. User Manual
12. Acceptance
13. Open
14. Leasing
15. Benchmark Manager
16. Workflow Manager
17. Misplaced/Stolen/Forgotten
18. Single Sign-On
19. Intrution Detection System (IDS)
20. Upgraded

SOLUTIONS TO SECTION B

SOLUTION 1

(a) This is a Systems Development assignment and it is appropriate to use the Systems Development Life Cycle (SDLC) technique.

The Systems Development Life Cycle has the following phases:

(i) Project Initiation

(ii) Feasibility Study

(iii) Systems Development or Acquisition

(iv) Installation & Training

(v) Live Operations

(vi) Maintenance

(vii) Post Implementation Review

Project Initiation - The need for an IT system is expressed and the purpose and scope of the IT system is documented. A Steering committee is set up by the Management, made up of representatives of ALL user departments including Finance, Operations, Marketing, Information Technology, Human Resources, Internal Audit and External Consultant. This is to ensure that the interests of all stakeholders are taken care of.

Feasibility Study – A Feasibility study is undertaken to ascertain problems of the current system, expectations and requirements of end users of the system to determine the immediate and future operational requirements of the organization. Data gathering techniques used in this phase include brainstorming sessions, Interviews and questionnaire administration.

Systems Development or Acquisition - The IT system is designed, purchased, programmed, developed, or otherwise constructed. In purchasing a system, a Request for Proposal (RFP) is sent to selected vendors, their proposals received and evaluated. Demonstration and presentations of the different applications are shown to selected and experienced staff. In developing a system, a systems' design is agreed upon and given to the computer programmers to translate into an application using an appropriate programming language. This is dependent on in-house skills available. Nowadays, most organizations purchase application software from specialized and reputable vendors.

Installation & Training – The system is installed with an appropriate hardware and associated ancillary equipment like Servers, printers, scanners etc and a telecommunications network setup for enterprise usage and access to information. Users are trained on its usage and made to test the application and ascertain that it meets their requirements. System documentation is also provided for Technical and end-users.

Live Operations – After installation and training are completed, the application is implemented. Practically, this is done in a phased approach, starting with one unit of the organization and proceeding to the rest. This approach provides opportunity to correct anomalies before enterprise- wide implementation

Maintenance – A system of maintenance is put in place including signing maintenance agreements with the vendors on the frequency of maintenance and cost implication.

Post implementation Review – It is always necessary to do a post implementation review. This is usually carried out by the Auditors. Their responsibility is to confirm that the expected project objectives and benefits have been achieved, determine adequacy of system design with installed features and capabilities. The auditors would also confirm whether the project was done on time, within budget and adequate controls have been put in the system for overall efficiency.

(b) The risky elements in the implementation phases include the following:

(i) **Project Initiation** – There is a risk of not properly defining and documenting the scope of the project. This may mar the completion of the project as expectations and outcomes have not been properly defined. Also, budgets may not be agreed upon, which may slow down the release of funds. To avoid this risk, the scope and expectations from the project should be documented and signed off. Budget estimates must also be approved by Management.

(ii) **Feasibility Study** – During this phase, there is the risk of not covering all aspects of operations to be automated. This may affect the feasibility report which will be turned into a statement of requirements. Therefore, it must ensure that all operations in the organization can be identified and evaluated.

(iii) **Systems Acquisition or Development** – During Systems acquisition, there is the risk of purchasing wrong technology. For example, we must ensure that the process of selection is thorough, widely advertised, external specialists advice sought and taken where necessary. Product demonstrations are a critical part of the process with end user participation.

(iv) **Installation & Training** – There is a risk that the requirements and features promised by the vendor are not installed. The System installation process should be assessed and compared with the requirements including security and control requirements. Documentation manuals must also be provided. End users must also perform conclusive tests on the system to confirm usability.

(v) **Live Operations** – Based on the excitement generated by the implementation process, there may be a tendency for immediate Enterprise-Wide implementation. However, this may lead to costly mistakes and business disruption.

(vi) **Maintenance** - Maintenance agreements and Service Level Agreements (SLA) are critical elements of the process. The organization must ensure that maintenance and Service Level Agreements are documented and signed off by the appropriate parties to the contract. This is to protect the organization.

(vii) **Post Implementation Review** – The performance of the system and benefits expected must be visible after the implementation to ensure that the organization got value for money. There is the risk of performance being at variance with expectations and business requirements not having been met as promised. Therefore, a post implementation review is necessary.

SOLUTION 2

There are five basic ways of dealing with identified IT risks. These are Mitigation, Transference, Acceptance, Avoidance and Elimination.

For each risk in the risk assessment report, a risk management strategy must be devised that reduces the risk to an acceptable level for an acceptable cost. For each risk management strategy, the cost associated with the strategy and the basic steps for achieving the strategy [known as the Plan Of Action & Milestones (POAM)] must also be determined.

Mitigation: Mitigation is the most commonly considered risk management strategy. Mitigation involves fixing the flaws or providing some type of compensatory control to reduce the likelihood or impact associated with the flaws. A common mitigation for a technical security flaw is to install a patch provided by the vendor. Sometimes the process of determining mitigation strategies is called Control Analysis.
Transference: Transference is the process of allowing another party to accept the risk on your behalf. This is not widely done for IT systems, but everyone does it all the time in their personal lives. Car, Health and Life Insurance are all ways to transfer risk. In these cases, risk is transferred from the individual to a pool of insurance holders,

including the insurance company. Note that this does not decrease the likelihood to fix any flaws, but it does reduce the overall impact (primarily financial) on the organization.

Acceptance: Acceptance is the practice of simply allowing the system to operate with a known risk. Many low risks are simply accepted. Risks that have an extremely high cost to mitigate are also often accepted. One should beware of high risks being accepted by management. Ensure that this strategy is in writing and accepted by managers making decisions. Often, risks are accepted that should not have been accepted, but when the penetration occurs, the IT security personnel are held responsible. Typically, business managers, not IT security personnel, are the ones authorized to accept risk on behalf of an organization.

Avoidance: Avoidance is the practice of removing the vulnerable aspect of the system or even the system itself. For instance, during a risk assessment, a website was uncovered that let vendors view their invoices, using a vendor ID embedded in the HyperText Markup Language (HTML) file name as the identification and no authentication or authorization per vendor. When notified about the web pages and the risk to the organization, management decided to remove the web pages and provide vendor invoices via another mechanism. In this case, the risk was avoided by removing the vulnerable web pages

SOLUTION 3

(a) (i) Parallel changeover method. This is the process of running both the old and the new systems concurrently for some time with the same data before discarding the old system.

(ii) Direct changeover method. This involves discarding the old system and setting into operation the new system immediately it is ready.

(b) **Advantages**

(i) Parallel changeover
- Results from the new system can be checked against a known result.
- No disruption in business should there be errors in the new system
- It is very effective

(ii) Direct changeover
- It is cheaper

- It is faster
- No duplication of work

(c) Disadvantages of parallel run

(i) Costly

(ii) Slow

(iii) Duplication of work.

SOLUTION 4

(a) Integrated Development Environment (IDE):

An Integrated Development Environment, also known as Integrated Design Environment, or Integrated Debugging Environment is a software application that provides comprehensive facilities to computer programmers for software development. An IDE normally consists of:

- A source code editor
- A compiler and/or an interpreter
- Build automation tools
- Debugger

IDEs are designed to maximise programmers' productivity by providing tightly-knit components with similar Graphical User Interfaces (GUI). This means that the programmer has much less mode switching to do than when using discrete development programs. Typically, IDE is dedicated to specific programming language, so as to provide a feature set which most closely match the programming paradigms of the language.

IDEs typically present a single program in which all development is done. This program provides many features for authoring, modifying, compiling, deploying and debugging software. The aim is to abstract the configuration necessary to piece together command line utilities in a cohesive unit, which thereotically reduces the time to learn the language, and increase developer productivity. It is also thought that the tight integration of development tasks can further increase productivity. For example, codes can be compiled while being written, providing instant feedback on syntax errors.

(b) (i) A Database Management System is a set of computer programs that controls the creation, maintenance and utilization of the databases of an organisation.

(ii) Characteristics of DBMS

- It is a software that handles all the read and write access by users of the database and application programs to the database.

- It is capable of presenting users with a view of that part of database that is relevant to their needs.

- It presents a logical view of data to users – details of how these data are stored and retrieved by the DBMS are hidden.

- It ensures that the database is consistent.

- It allows authorization of different users to access different parts of the database.

- It allows the person in control of the database to define the structure.

- It provides various monitoring facilities for monitoring and control of the database.

(c) Data Definition Language (DDL), is a language like Oracle used to develop and specify the data contents, relationship and structure of each database, and to modify these database specifications, when necessary.

- Data Manipulation Language (DML), is a set of statements made available to progrmmers which are being used to call on the DBMS to perform necessary data handling activities. Examples are SELECT, INSERT, DELETE and UPDATE.

SOLUTION 5

(a) **"Sheep Dip"**

This is a term for a computer which connects to a network only under strictly controlled conditions and is used for the purpose of running anti-virus checks on suspected files, incoming messages, etc. It may be inconvenient and time consuming for an organization to give all incoming mail attachment a healthy check but the rapid spread of macro viruses associated with word processors, spreadsheets documents, and e-mail attachments, makes this approach worthwhile.

(b) (i) Virus and Worms: A virus is a type of malicious code that exploits vulnerability in a program. It reproduces its own code by attaching itself to other executable files such that the virus code is run when the infected

executable file is executed. Viruses are malicious code that exploit the vulnerability in a program; a virus operates without the knowledge of the computer user. Symptoms include; system behaving in an unprecedented manner such as applications taking longer time than required to boot, strange graphics appearing on the screen, etc.
On the otherhand, a worm is a sub-set of virus, which does not require a host computer to replicate and usually copies itself across a network. A computer worm differs from a computer virus in that a computer worm can run itself. A virus needs a host program to run, and the virus code runs as part of the host program. A computer worm can spread without a host program, although some modern computer worms also use files to hide.

(ii) Trojan: A Trojan is a small program that runs hidden on an infected computer. With the help of a Trojan, an attacker gets access to stored passwords, can read document, deletes files and breaks the computer, displays pictures and shows messages on the screen.

(iii) Logic Bomb: A logic bomb is a code surreptitiously inserted into an application or operating system that causes it to perform some destructive or security compromising activity whenever specific conditions are met. These conditions can be either event-related or date-related such as birthdays, end or beginning of popular months, etc.

(iv) Time Bomb: A time bomb is considered to be a sub form of logic bomb that is triggered by reaching some present time, either once or periodically. An example of time bomb is the W32.CIH.Spacefiller (aka Chernobyl). Chernobyl is a deadly virus. Unlike the other viruses that have surfaced, this one is much more than a nuisance. If infected, Chernobyl will erase data on the hard drive, and may even keep the machine from booting at all. There are several variants in the wild, each variant activates on a different date. Version 1.2 on April 26th, 1.3 on June 26th, and 1.4 on the 26th of every month.

(c) Single-User vs Multi-User Operating System: A Single-User Operating System is an operating system designed to run on stand-alone machines not having the capability of a network environment such as; online resource sharing and exchange of data and programs. In other words, it is an OS that is available to only one user at a time. Examples of a Single-User Operating System include Disk Operating System (DOS) and Windows 95, 98, etc. On the other hand, Multi-user Operating System supports concurrent access by users on the system. An example is a Unix Server where multiple remote users have access (such as via Secure Shell) to the Unix shell prompt at the same time.

SOLUTION 6

(a) Three generations of mobile telephony are:
- First generation - Analogue
- Second generation - Digital voice
- Third generation - Digital voice and data (internet, e-mail)

(b) Four categories of channel in a first generation mobile telephony are:

- Control channel (base to mobile) to manage the system.
- Paging channel (base to mobile) to alert mobile users on calls for them.
- Access(bi-directional) for call set up and channel assignment.
- Data (bi-directional) for call set up and channel assignment.
- Data(bi-directional) for voice, fax, or data.

(c)
- D-AMPS means Digital Advanced Mobile Phone System.
- GSM means Global System for Mobile Communication
- CDMA means Code Division Multiple Access

(d) The application layer contains a variety of protocols that are commonly needed by users. One widely used application protocol is HTTP (Hyper Text Transfer Protocol), which is the basis for the World Wide Web (www).
It provides series of protocols for the world wide web such as file transfer protocols, Transfer Control/Internet Protocol (TC/IP).

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
MANAGEMENT ACCOUNTING

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. A particular raw material has a safety stock of 4,500 units and a re-order quantity of 3,000 units. Determine the average stock level.

   A. 3,750 units
   B. 1,500 units
   C. 2,250 units
   D. 5,250 units
   E. 6,000 units.

2. Which **ONE** of the following has no relevance in management control over material costs?

   A. Material price report
   B. Material requisition
   C. Material usage rates
   D. Material wastage report
   E. Stock level exception reports.

3. Feedback loop is made up of the following, **EXCEPT**

   A. Input
   B. Comparator
   C. Sensor
   D. Effector
   E. Process.

4. Given that volume ratio is 120% and activity ratio is 150%, what is the productivity ratio?

   A. 180%
   B. 80%
   C. 125%
   D. 270%
   E. 135%.

5. Value engineering requires the use of

   A. operational analysis.
   B. tactical analysis.
   C. value analysis.
   D. quality analysis.
   E. functional analysis.

6. Feedback is essential in management accounting system for the following reasons **EXCEPT**

   A. Control
   B. Monitoring
   C. Coordinating
   D. Attention directing
   E. Motivation.

7. Risk adjusted discount rates for a firm can be calculated using

   A. net present value.
   B. internal rate of return.
   C. capital rationing.
   D. accounting rate of return.
   E. capital assets pricing model.

8. The technique to ensure that the delivery of material immediately precedes its use is known as

   A. throughput accounting.
   B. life cycle costing.
   C. just in time.
   D. terotechnology.
   E. activity based costing.

9. A management system which focuses on ways by which the maximum return per unit of bottleneck activity can be achieved is called

   A. throughput accounting.
   B. life cycle costing.
   C. just in time.
   D. terotechnology.
   E. activity based costing.

10. The information used by top management to plan the objectives of its organization with a view to assessing whether the objectives are being met in practice is called

A. strategic information.
B. functional information.
C. tactical information.
D. classical information.
E. routine information.

11. A situation where the objectives of sub-systems are pursued to the detriment of overall system goals is called

A. optimization.
B. sub-optimisation.
C. pre-optimisation.
D. post-optimisation.
E. neo-optimisation.

12. Activity-Based Costing focuses on causes of costs incurred which are otherwise known as cost

A. estimation.
B. planning.
C. valuation.
D. prediction.
E. driver.

13. Tear-Down Analysis which involves examining a competitor product in order to identify opportunities for product improvement and/or cost reduction is known as

A. forward engineering.
B. backward engineering.
C. routine engineering.
D. reverse engineering.
E. future engineering.

14. In risk management, the conventional measure of the dispersion of a probability distribution is the

A. median.
B. standard deviation.

C. coefficient of determination.
D. correlation coefficient.
E. standard error.

15. A company's break-even point is 6,000 units. The selling price per unit is ₦90 and the variable cost is ₦40 per unit. Compute the fixed cost.

A. ₦120,000
B. ₦300,000
C. ₦240,000
D. ₦540,000
E. ₦375,000.

16. In a regression analysis, which of the following indicates the strongest relationship?

A. +0.75
B. +0.60
C. -0.90
D. 0
E. -0.45.

17. If X is the number of managers and Y is the number of non-managerial staff, which of the following inequalities expresses the constraint that the number of managers must not be more than 25% of the total number of staff?

A. $4x \leq Y$
B. $X \leq 4Y$
C. $3X \leq Y$
D. $^{X}/_{4} \leq X + Y$
E. $\frac{3x}{4} \leq Y$.

18. The cost function derived by Least Squares method should

A. be linear.
B. be tested for minima.
C. be tested for maxima.
D. be parabolic.
E. indicate maximum cost at the point of inflection of the function.

Use the following data to answer questions 19 and 20.

Unit selling price	₦250
Variable cost/unit	₦130
Fixed cost	₦26,000
Tax rate	40%

19. What is the break-even point?

    A. 214 units
    B. 215 units
    C. 217 units
    D. 218 units
    E. 250 units

20. Determine the units that should be produced to achieve a target income after tax of ₦6,000.

    A. 246 units
    B. 247 units
    C. 266 units
    D. 267 units
    E. 300 units.

PART II: SHORT ANSWER QUESTIONS (20 MARKS)

1. A management technique used to identify and monitor the costs of a product throughout its entire life is called …………..

2. A technique of assessing cost of servicing each customer and revenue generated from such service for the purpose of identifying valuable customers is achieved through the employment of ……………..

3. A control technique that reports variances by comparing actual costs to pre-set standards is called …………………..

4. A process of balancing both financial and non-financial performance measures to evaluate company's mission and plans is known as ……………….

5. The process of identifying the standard which serves as a reference point in an industry is called ………………

6. A system by which maximum returns per unit of bottleneck activity can be achieved is called ……………………

7. The expression 'do it right in the first instance' stands for ……………..

8. The discount rate that makes the Net Present Value (NPV) of a project equal to zero is …………

9. The minimum desired rate of return is called ………………

10. Decision making where the benefit to one sub-unit is more than offset by the costs or loss of benefit to other sub-units is called ……………

11. The expected value of a particular action is ₦32 and the co-efficient of variation is 0.40. What is the standard deviation?

12. A mixed cost has a fixed cost element of ₦5,000. If the total cost is ₦14,000 when the independent variable is 500, calculate the slope coefficient.

13. The difference between the sales at Break Even Point (BEP) revenue and the actual sales is called ……….

14. A company has just started producing a new product. The total time for the first 800 units is 5,598 hours and the total time for the next 800 units is 4,485 hours. If the learning curve applies, what is the learning rate?

15. Direct labour cost plus manufacturing overhead cost is known as ....

16. Output below specification but can be upgraded into standard specified units is known as..........

17. Given that direct material cost variance is ₦20,000(F) and the material usage variance is ₦35,000(A). What is the direct material price variance?

18. Given the following data: Budgeted Sales Revenue ₦500,000; Budgeted Fixed Cost ₦200,000; Budgeted profit ₦50,000. Compute the break even sales amount.

19. A firm received a special order. Prime cost is ₦500,000; variable overhead is ₦100,000 while fixed overhead is ₦150,000. The company forecasts a profit of ₦10Million for the year by producing 100,000 units. If the order request is for 10,000 units, determine the minimum price for the order received.

20. Labour cost ₦1,000,000; Production overhead amounted to ₦500,000. If the firm operates JIT manufacturing system, produce an entry for the conversion cost incurred through the use of three trigger points.

SECTION B:

QUESTION 1 - CASE STUDY

ALAPAKON PLC

Chika, the production manager of Alapakon Plc, a producer of automated security doors, attended a major international exhibition on computer integrated manufacturing (CIM). He has read of the improvements in product quality and profitability achieved by companies which have switched to this new technology. In particular, his Abuja competitors are believed to use CIM equipment extensively. Chika is sufficiently concerned about his company's failure to commission a report from Gogoyo Computer Limited, a vendor of CIM equipment, as to the appropriateness of utilizing CIM for all its production activities.

The report which was recently prepared suggests that the following costs and benefits will accrue to Alapakon Plc as a result of investing in an appropriate CIM system:

(a) Cost of implementing CIM:

  (i) Capital equipment will cost ₦40 million. The equipment will have an estimated life of 10 years after which time, its disposal value will be ₦10 million.

  (ii) Proper use of the equipment will require substantial retraining of current employees. As a result of the necessary changes in the production process, and the time spent on retraining, Alapakon Plc will lose production (and sales) in its first two years of implementation. The lost production (and sales) will cost the company ₦10 million per annum.

  (iii) The annual cost of writing software and maintenance of the computer equipment will be ₦4 million.

(b) Benefits of Implementing CIM:

  (i) The use of CIM will enhance the quality products of Alapakon Plc. This will lead to less reworking of production and a consequent reduction in warranty costs. The annual cost savings are expected to be ₦12 million per annum.

  (ii) The CIM equipment will use less floor space than the existing machinery. As a result, one existing factory will no longer be needed. It is estimated that the factory can be let out at an annual rental of ₦2 million.

(iii) Better planning and flow of work will result in an immediate reduction in the existing levels of working capital from ₦13 million to ₦8 million.

The Directors of Alapakon Plc currently require all investments to generate a positive Net Present Value at a cost of capital of 15% and to show an accounting rate of return in the first year of at least 15%. All cash flows arise at the end of the year, except those relating to the equipment and retraining costs and the reduction in working capital.

It is the intention of Alapakon Plc to capitalize retraining costs for management accounting purposes.

Required:

- Determine whether Alapakon Plc should invest in CIM technology on the basis of its investment criteria. (12 Marks)

- State any **THREE** factors which Alapakon Plc should consider when deciding whether to switch to CIM technology or not. (3 Marks)

(Total 15 Marks)

QUESTION 2

The budget of Shakara Limited provides for the manufacture and sale of 10,000 units of local caps per month. The unit standard cost is ₦12, made up as follows:

	₦
Direct Materials	5.00
Direct Labour	2.00
Variable overhead	1.00
Fixed overhead	4.00
	12.00

The selling price of the cap is ₦16.00.

Production and sales for periods 1, 2 and 3 are as follows:

	Period 1	Period 2	Period 3
Production	10,000	8,000	11,000
Sales	8,000	9,000	12,000

Production can be increased to 11,000 units without a corresponding increase in fixed overheads.

You are required to:

(a) Prepare operating statements for the three periods, assuming the company uses:

(i) Absorption costing; and
(ii) Marginal costing . (12 Marks)

(b) Comment on the differences of the two systems as regards:
(i) Stock valuation; and
(ii) Period profit. (3 Marks)

(Total 15 Marks)

QUESTION 3

Mutallab Nigeria Limited, a manufacturer of furniture, established standard costs in the joinery department, in which one size of Kitchen Cabinet style 1200/01 is produced. The standard cost of producing one of these cabinets is shown below:

	Kitchen Cabinet Style 1200/01	₦
Materials:	Timber 50metres of board @20k per m	10.00
Direct Labour:	3 hours @ ₦6 per hour	18.00
Indirect costs:		
Variable	3 hours at ₦1 per hour	3.00
Fixed	3 hours at ₦0.50 per hour	1.50
		32.50

The cost of producing 400 units of these cabinets during October is as stated below.

		₦
Materials purchased:	25,000 metres of board at 22k	5,500
Material used:	19,000 metres of board	
Direct Labour:	1,100 hours at ₦5.90	6,490
Indirect Costs:		
Variable		1,300
Fixed		710

There was no opening stock.

Budgeted direct labour hours of operation at the monthly activity level is 1,400 hours.

You are required to compute the following variances identifying them as either favourable (F) or unfavourable (U).

(a) Material purchase price (3 Marks)
(b) Material usage (2 Marks)
(c) Direct labour rate (2 Marks)
(d) Direct labour efficiency (2 Marks)

(e)	Variable overhead total variance	(2 Marks)
(f)	Fixed overhead expenditure variance	(2 Marks)
(g)	Fixed overhead volume variance.	(2 Marks)
		(Total 15 Marks)

QUESTION 4

Standard Machine Product (SMP) Plc is an automobile component supplier. SMP wishes to prepare the activity-based budget for the R&D product design parts for the year. Four activity areas and their cost drivers have been identified as follows:

S/N	ACTIVITIES	COST DRIVER/BUDGETED COST DATA
(a)	Computer aided design (CAD) using computer software to design parts	CAD Hours ₦120 per hour
(b)	Manual design - Manually designed parts	Manual design hours ₦60 per hour
(c)	Prototyping development building manual versions of parts	Prototyping hours ₦80 per hour
(d)	Testing/examining how new parts perform in different operating conditions	Testing hours ₦100 per hour
(e)	Procurement – purchasing of supplies	Purchase order ₦40 per hour

A total of 2,000 hours of activities were available and 200 purchase orders were finalized. The hours consumed are as follows:

Computer-aided design 30%; Manual design 5%; Prototyping development 25%; Testing 40%.

Required:

(a) Prepare the activity-based budget for the year. (9 Marks)

(b) List any **SIX** advantages of activity-based budgeting. (6 Marks)

(Total 15 Marks)

QUESTION 5

(a) Explain what you understand by "Monte Carlo Simulation". Give any **FIVE** examples of its uses. (8 Marks)

(b) As a Management Accountant, what basic tool do you require to effectively use Monte Carlo Simulation? State any **TWO** of its characteristics. (4 Marks)

(c) List any **TWO** benefits of this concept. (3 Marks)

(Total 15 Marks)

QUESTION 6

Steve Limited manufactures a single product with a variable manufacturing cost of ₦48 per unit and a selling price of ₦80 per unit. Fixed production overheads are ₦360,000 per period. The normal level of output in each period is 30,000 units, so that an overhead absorption rate of ₦12 per unit is applied. Any under-or over-absorbed overhead is written off to the profit and loss account in the period in which it arises. It could be assumed that no other expenses are incurred. In each of the two periods, 1and 2, the volumes of production and sales are as follows:

	Period 1 Units	Period 2 Units
Opening stock b/f	10,000	22,000
Production	35,000	26,000
	45,000	48,000
Closing stock c/f	22,000	10,000
Sales	23,000	38,000

Required:

(a) Use flexible budgeting technique to calculate the company's manufacturing and trading results for periods 1 and 2 and explain the difference in profit between both periods; (12 Marks)

(b) Outline briefly the need for flexible budgets. (3 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

PART 1 MULTIPLE CHOICE QUESTIONS

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

Workings

Q.1 Average stock

$$= \text{Safety stock} + \frac{\text{Reorder Quantity}}{2}$$

$$= 4{,}500 + \frac{3000}{2}$$

$$= 6{,}000 \text{ units}$$

Q.4 Productivity ratio $= \dfrac{\text{Volume ratio}}{\text{Capacity ratio}}$

$= \dfrac{120}{150} \times \dfrac{100}{1}$

$= 80\%$

Q.15 Contribution per unit = ₦90 – ₦40 = ₦50

BEP (units) $= \dfrac{\text{Fixed cost}}{\text{Contribution/unit}}$

6,000 $= \dfrac{\text{FC}}{\text{₦50}}$

FC = ₦300,000

Q.17 $X \le \dfrac{X - \,'}{4} = 4x \le X + Y$

$= 3x \le Y$

Q.19 $\dfrac{\text{Fixed cost}}{\text{Contribution margin}} = \dfrac{26{,}000}{250 - 130} = \dfrac{26{,}000}{120} = 216.66$ units

Q.20 Desired sales in unit $= \dfrac{\text{Fixed cost + Target Income}}{\text{Contribution margin}}$

$= \dfrac{26{,}000 + ((6{,}000)/(1\text{-}0.4))}{120} = \dfrac{36{,}000}{120}$

$= 300$ units

PART II SHORT ANSWER QUESTIONS

1. Life cycle costing
2. Customer Profitability Analysis
3. Standard costing
4. Balanced score card
5. Benchmarking
6. Throughput Accounting
7. Total Quality Management
8. Internal Rate of Return (IRR)
9. Hurdle rate or cost of capital or discount rate/cut-off rate
10. Dysfunctional decision making/sub-optimisation
11. ₦12.80
12. ₦12
13. Margin of Safety
14. 90%
15. Conversion costs
16. Defective items.
17. ₦55,000 F
18. ₦375,000
19. ₦60
20.

Conversion Cost Control Account Dr	₦1,500,000
Wages Control Account Cr	₦1,000,000
Production Overhead Control Account Cr	₦500,000

Workings

Q.11	Standard deviation	=	Coefficient of variation x Expected value
		=	0.40 x N32
		=	N12.80

Q.12 y = a + bx

14,000 = 8,000 + 500b

b = ₦12

Q.14 Average time/unit

1^{st} 800 units = 5598/800 = 7

1^{st} 1600 units = 10083/1600 = 6.3

Learning rate = $\frac{6.3}{7}$ = 90%

Q.17 Direct material costs variance = DMUV + DMPV

₦20,000 (F) = ₦35,000(A) + DMPV

DMPV = ₦55,000 (F)

Q.18 Computation Margin Ratio (CMR) = $\frac{₦200,000}{₦500,000}$ = 0.40

Fixed cost = ₦200,000 – ₦50,000

= ₦150,000

∴ BEP ₦ = $\frac{₦150,000}{0.40}$

= ₦375,000

Q.19 Total Minimum Price = Incremental cost

= ₦500,000 + 100,000 = ₦600,000

Minimum Price Per Unit = ₦600,000 ÷ 10,000 = ₦60

SOLUTIONS TO SECTION B

SOLUTION 1 - CASE STUDY

(a) NPV Calculations

Items	Years	Cash flows ₦'m	PVF at 15%	PV ₦'m
Outlay	0	(40)	1.000	(40)
Reduction in working capital	0	5	1.000	5
Retraining costs (Note ii)	0 – 1	(10)	1.870	(19)
Annual cost savings	1 – 10	12	5.019	60
Rental income	1 – 10	2	5.019	10
Software	1 – 10	(4)	5.019	(20)
Disposal value	10	10	0.247	2
NPV				(2)

Notes

(i) Calculations of PV carried to the nearest ₦million.

(ii) The question implies that retraining costs do not occur at the end of the year. It is therefore assumed that cash flows occur at the start of years 1 and 2 (that is, years 0 and 1).

CALCULATION OF ACCOUNTING RATE OF RETURN

	₦'m
Year 1 incremental profits:	
Annual cost savings	12
Retraining costs (20m/10 years)	(2)
Rental income	2
Software	(4)
Depreciation of equipment (40 – 10)/10 years	(3)
Increase in accounting profits	5
Year 1 incremental capital investment:	
Initial outlay	40
Capitalised retraining cost	20
Reduction in working capital	(5)
	55

It is assumed that ROI is computed based on the opening written down value:

ROI = $^{5}/_{55}$ = 9.1%

Conclusion: The proposed investment yields ROI of 9.1% and negative Net Present Value (NPV) of ₦2m. The Company's cost of capital is 15% and ARR is also 15%, therefore, the project should be rejected because it would not meet the company's investment criteria.

(b) The answer should include a discussion of the specific problems that arise in evaluating investment in advanced manufacturing technologies (AMT) and an explanation of why the financial appraisal might incorrectly reject such investments.

(i) It is claimed that many of the benefits from investing in AMT are difficult to quantify and tend to be included in the analysis (e.g. improved product quality).

(ii) It is also claimed that inflation is incorrectly dealt with and that excessive discount rates are applied which over compensate for the risks involved.

(iii) Alapakon Plc may fail to properly evaluate the relevant alternatives.

(iv) Taxation has not been incorporated in the analysis.

(v) The project has been discounted at the company's normal cost of capital of 15%. This rate is only justified if the risk of the project is equivalent to the average risk of the company's existing assets.

SOLUTION 2

a(i) **Absorption Costing basis:**

	Period 1		Period 2		Period 3	
	₦	₦	₦	₦	₦	₦
Sales		128,000		144,000		192,000
Opening stocks	-		24,000		12,000	
Productn cost:						
Material, labour						
& var.overhead	80,000		64,000		88,000	
Fixed overhead	40,000		32,000		44,000	
	120,000		120,000		144,000	

Closing stock	24,000		12,000		-	
Cost of sales		(96,000)		(108,000)		(144,000)
Profit		32,000		36,000		48,000

Note:
Over(under)
Absorption of
Fixed overheads - (₦8,000) ₦ 4,000

(ii) **Marginal Costing basis**

	₦	₦	₦	₦	₦	₦
Sales	-	128,000		144,000		192,000
Opening stocks	-		16,000		8,000	
Productn costs:						
Material, labour						
& var. overhead	80,000		64,000		88,000	
	80,000		80,000		96,000	
Closing stock	16,000		8,000		-	
Var. cost of sales		(64,000)		(72,000)		(96,000)
Contribution		64,000		72,000		96,000
Fixed Overhead		(40,000)		(40,000)		(40,000)
Profit		24,000		32,000		56,000

b(i) The closing stock valuation under marginal costing is lower than under Absorption costing because of the method of dealing with the fixed overhead. In marginal costing, the stock is valued on the basis of marginal costs only while in absorption costing, an element of fixed overhead is included, thereby resulting in a higher valuation. For example, in Period 1, the closing stock valuation under absorption costing is ₦8,000 higher than under the marginal costing method. This translates to 2,000 at ₦4, that is, the fixed overhead element of ₦4 per unit.

(ii) The differences in profit of each period is directly related to the stock valuation, which in turn, is directly related to the treatment of fixed overheads. A higher closing stock valuation has a direct effect on the period profit. In period 1, there is a difference of ₦8,000 between the two methods. The effect is that under marginal costing fixed overheads are written off in the period in which they arise, whereas under absorption costing, a proportion of fixed overheads are included in the closing stock valuation and are, therefore, carried forward into the subsequent periods.

SOLUTION 3

		₦	
(a)	Material purchase price variance	500	(U)
(b)	Material usage variance	200	(F)
(c)	Direct Labour Rate variance	110	(F)
(d)	Direct Labour Efficiency variance	600	(F)
(e)	Variable overhead total variance	100	(U)
(f)	Fixed overhead expenditure variance	10	(U)
(g)	Fixed overhead volume variance	100	(U)

Workings:

(a) Material Purchase Variance

Material purchased x (standard price – actual price)

25,000 m x (20k – 22k) = ₦500 U

(b) Material Usage Variance

Standard price(standard quantity – actual quantity)

20k(20,000 m – 19,000 m) = ₦200F

(c) Direct Labour Rate Variance

Actual Hour (standard labour rate – actual labour rate)

1,100 (₦6.00 – ₦5.90) = ₦110 F

(d) Direct Labour Efficiency Variance

Standard rate (standard hour – actual hour)

₦6(1,200 – 1,100) = ₦600F

(e) Variable Overhead Total Variance

Standard overhead – Actual overhead

₦1,200 – ₦1,300 = ₦100 U

(f) Fixed Overhead Expenditure Variance

Budgeted overhead – Actual overhead

(1,400 x 50k) – 710 = ₦10U

(g) Fixed Overhead Volume Variance

Standard rate (standard hours – actual hours)

50k (1,200 – 1,400) = ₦100U

SOLUTION 4

(a) **STANDARD MACHINING PRODUCT PLC**
ACTIVITY-BASED BUDGET FOR R & D FOR THE YEAR 2009

S/N	Activity Area	Budgeted usage of cost drivers	Budgeted rate/ cost drivers	Budgeted cost
			₦	₦
A	Computer aided	600 hours	120	72,000
B	Manual design	100 hours	60	6,000
C	Prototyping dev.	500 hours	80	40,000
D	Testing	800 hours	100	80,000
E	Procurement	200 orders	40	8,000
	Total			206,000

(b) Advantages of Activity Based Budgeting include:

(i) It enhances the ability to set more realistic budget;

(ii) It facilitates better identification of resource needs;

(iii) It facilitates linking of costs to output;

(iv) It gives a clearer linkage of costs with staff responsibilities;

(v) It enables a company to price its products or services efficiently and therefore operate more competitively in the industry;

(vi) It highlights the cost of activities and thus encourages new thinking;

(vii) It leads to efficient stock control and management thus improving activities positively e.g. reducing material movements, improved production flow;

(viii) It gives organizations a better understanding of the cause and effect of their cost profiles and, therefore, guides in reducing or eliminating activities that do not add value; and

(ix) It ensures identification of budgetary slacks.

SOLUTION 5

(a) Monte Carlo Simulation is a versatile method for analyzing the behaviour of some activities, plans or processes that involve uncertainty. It helps one to understand the impact of uncertainty and develop plans to mitigate or otherwise cope with risk.

Examples include:

(i) Uncertainty or variable market demand;
(ii) Variation in manufacturing process;
(iii) Effects of weather on operations;
(iv) Cash flow forecasting;
(v) Inventory control;
(vi) Capital project analysis;
(vii) Queueing analysis;
(viii) Investing in stocks and shares;
(ix) Developing a new drug;
(x) Drilling an oil well; and
(xi) Fluctuating cost.

(b) To use this model, a management accountant must be able to build a quantitative model of the business activity, plan or process. Specifically, he must possess the following:

(i) Ability to create a spreadsheet model using Microsoft Excel;
(ii) Ability to use frontline systems risk solver as a simulation tool;
(iii) Need to learn or review the basics of probability and statistics in order to analyse the results of a simulation run, for example, mean, standard deviation, percentiles, etc as well as charts and graphs.

(c) Benefits

(i) Where 'what if' has failed, Monte Carlo succeeds.
If models are created with best case, worst case and average case scenarios, but only to find out that the actual outcome was very different, Monte Carlo Simulation will be needed;

(ii) Know what factors really matter.
Tools such as frontline risk solver enable one to quickly identify the high impact factors in a model using sensitivity analysis across thousands of Monte Carlo trials which would otherwise take hours using 'what if' analysis;

(iii) Give yourself a competitive advantage.
It enables one to strike a better bargain, choose the price that yields the most profit or benefit in other ways;

(iv) Be better prepared for executive decisions.
The higher you go in an organization, the more you find yourself dealing with uncertainties.

SOLUTION 6

(a)

	Period 1	Period 2
	35,000 units	26,000 units
	₦	₦
Overhead absorbed (x ₦12)	420,000	312,000
Overhead incurred	360,000	360,000
	60,000	(48,000)

Manufacturing and trading results

	Period 1		Period 2	
	₦	₦	₦	₦
Sales		1,840,000		3,040,000
Opening stocks (@₦60/unit)	600,000		1,320,000	
Production (@ ₦60/unit)	2,100,000		1,560,000	
	2,700,000		2,880,000	
Closing stock (@ ₦60)	(1,320,000)		(600,000)	
Cost of sales		(1,380,000)		(2,280,000)
		460,000		760,000
Over/(under) absorbed overhead		60,000		(48,000)
		520,000		712,000

The difference in profit is ₦192,000. This is explained as follows:

	₦
Difference in profit due to sales volume (15,000 units ₦80 – 60 per unit)	300,000
Difference in profit due to over/(under) absorbed overhead	(108,000)
	192,000

(b) There are a number of advantages of planning with flexible budgets, such as:

(i) It is possible to find out well in advance, the costs of lay off pay, idle time and so on, if output falls short of budget;

(ii) Management can decide whether it would be possible to find alternatives for spare capacity, if output falls short of budget; and

(iii) An estimate of the costs of overtime, sub-contracting work or extra machine hire if sales volume exceeds the fixed budget estimate. It can be established whether there is a limiting factor which would prevent high volumes of output and sales being achieved.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
MANAGEMENT ACCOUNTING

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. Which of the following is **NOT** a variable cost?

   A. Direct materials
   B. Sales agents' commission
   C. Depreciation by mileage –automobile
   D. Direct labour
   E. Insurance.

2. A company purchased 6,850kg of materials at a total cost of ₦21,920. The material price variance was ₦1,370 favourable. The standard price per kg was

   A. ₦0.20.
   B. ₦3.00.
   C. ₦3.20.
   D. ₦3.40.
   E. ₦4.80.

3. ABC manufactures a carbonated drink which is sold in 1 litre bottles. During the bottling process, there is a 20% loss of liquid input due to spillage and evaporation. The standard usage per bottle is

   A. 0.80 litre.
   B. 1.00 litre.
   C. 1.20 litres.
   D. 1.25 litres.
   E. 1.40 litres.

4. Basic break even and Cost Volume Profit models are subject to a number of limiting assumptions. Which of these is not valid?

   A. Behaviour of both sales revenue and expenses is linear within a relevant range of activity
   B. All costs are classified as fixed or variable
   C. There is only one product

D. Inventories can vary from period to period
E. Volume is the only factor affecting variable costs.

5. An activity that customers perceive as adding usefulness to the product or service they purchase is called

A. activity based costing.
B. value added activity.
C. business process activity.
D. value chain activity.
E. product/service value activity.

6. Return on investment can be expressed as a product of margin and turnover. This breakdown is called

A. return on capital employed.
B. accelerator.
C. motivator.
D. dupont analysis.
E. capacitor.

7. The general formula for computing a Transfer price is

A. variable cost per unit plus opportunity cost per unit for the company as a whole.
B. variable cost per unit plus fixed cost per unit for the company as a whole.
C. variable cost per unit plus fixed cost per unit of the division involved.
D. contribution per unit of transferring division plus variable cost per unit.
E. variable cost per unit plus opportunity cost per unit of division involved.

8. Learning curve theory can be applied in the following areas EXCEPT

A. Pricing decisions based on estimate of expected costs
B. Scheduling labour requirement
C. Capital budgeting decision
D. Scheduling purchase requirement
E. Setting incentive wage rates.

9. Quality costs are classified into three broad categories as prevention, appraisal and

A. review
B. success

C. failure
D. curation
E. control

10. Which of the underlisted costs can be classified as preventive cost?

A. Quality training
B. Material inspection
C. Scrap
D. Rework
E. Product warranty.

11. A company wishes to make a profit of ₦150.000. Fixed cost is ₦75,000 and the contribution/sales ratio is 0.75. If the unit selling price is ₦10, how many units must be sold?

A. 10,000 units
B. 15,000 units
C. 22,500 units
D. 20,000 units
E. 30,000 units.

12. The profitability index is commonly used in ranking investment projects competing for

A. execution.
B. limited funds.
C. satisfaction.
D. reappraisal.
E. completion.

13. How much would you pay for an annuity due of ₦20,000 for 10 years at 8%?

A. ₦134,203
B. ₦144,937
C. ₦135,400
D. ₦124,950
E. ₦119,779.

14. A five-year project has a net present value of ₦160,000, when it is discounted at 12%. The project includes an annual cash flow of ₦50,000 for each of the years. The percentage increase in the value of this annual cash flow that would make the project no longer viable is closest to

A. 64%.
B. 89%.
C. 113%.
D. 156%.
E. 74%

15. For a raw material, cost per order is ₦10, monthly holding cost is ₦0.10 and annual demand is 5,400 units. What is the Economic Order Quantity (EOQ)?

A. 300 units
B. 1,039 units
C. 360 units
D. 1,200 units
E. 480 units.

16. A control system that includes provision for corrective action taken on either a feedback or feedforward basis is called

A. closed loop system.
B. open loop system.
C. free loop system.
D. loose loop system.
E. lost loop system.

17. Quantitative expression of a plan for a defined period of time is called

A. corporate planning.
B. budget.
C. goal.
D. profit planning.
E. product planning.

18. KLQ sells three products. The ratio of their total sales values for K, L and Q is 2:3:5 respectively. The contribution to sales ratios are K =30%, L=25% and Q = 40%. The fixed cost is ₦120,000. The sales revenue necessary to earn a profit of ₦34,000 (to the nearest ₦1,000) is

A. ₦392,000.
B. ₦413,000.
C. ₦460,000.
D. ₦486,000.
E. ₦480,000.

19. A method of budgeting based on the previous budget or actual results adjusted for known changes and inflation is

A. beyond budget.
B. zero base budget.
C. priority budget.
D. incremental budget.
E. rolling budget.

20. Intentional under-estimation of revenue or over-estimation of cost during budget setting is called

A. budget virement.
B. budget slack.
C. budget variance.
D. budget sting.
E. budget lapsing.

PART II SHORT ANSWER QUESTIONS (20 MARKS)

1. Management carries out four broad functions in an organization. They are planning, coordinating, controlling and ....

2. An opportunity cost is the net revenue forgone by rejecting a/(an) ....

3. Any cost that is influenced by a manager's decision and action is a ....

4. Within the relevant range of activity, the fixed costs do not change in total regardless of changes in volume or ....

5. In regression analysis. coefficient of determination is a measure of the ....

6. Factory overhead, taken as a whole, exhibits .... behavioural phenomenon.

7. Agbari Plc produces product K, using both materials X and Y. Each unit requires 5 units of X and 4 units of Y. In a particular period, 25,000 units of X and 24,000 units of Y are available. What is the maximum number of units of K that can be produced in the period?

8. In the usual break even chart, the activity level is measured on the .... axis.

9. One of the ideas behind preparing cash budgets is to avoid unnecessary cash .... or ....

10. A company has severe shortage of labour hours. Normal hourly rate is ₦120. If the shadow price is ₦60, what maximum hourly rate should the company be willing to pay for every additional hour worked?

11. Alore has fixed cost of ₦120,000 per annum. It manufactures a simple product which sells for 40 per unit. Its contribution to sales ratio is 40%. What is the break even point in quantity?

12. Dakobiri is currently considering an investment that gives a positive net present value of ₦3,664 at 15%. At a discount rate of 20%, it has a negative net present value of ₦21,451. What is the internal rate of return of this investment?

13. A production process accomplished largely by machinery is called ....

14. Value–added activities enhance the value of products and services from the viewpoint of ....

15. State any **TWO** of the components of a Master Budget.

16. The transfer pricing, at arm's length standard, desired by tax authorities is..................

17. Costs not involving actual cash movement are called ....

18. Costs that cannot be changed due to contractual agreements are termed ....

19. The correlation coefficient (R) between total cost and output is computed as 0.6 approximately. What percentage of total variation in total cost is accounted for by changes in output?

20. A new contract requires 10,000 hours of highly skilled labour currently being paid ₦75/hour. The 10,000 hours will be diverted from an existing contract where they currently earn a contribution of ₦40/hour. What is the relevant cost of the 10,000 hours?

SECTION B:

SOLUTION 1- CASE STUDY

Tistol Plc is a specialized company in the metallic printing segment of the printing industry. The company has three manufacturing divisions. Investment decisions are initiated by each of the divisions but must be discussed with and approved by the head office before execution. Tos Limited is one of the divisions and it is based in Lagos, where competition is keenest.

Tistol Plc requires each of its divisions to achieve a rate of return on capital employed of at least 10% p.a. For this purpose, capital employed is defined as fixed capital and investment in stocks. This rate of return is also applied as a hurdle rate for new investment projects. Divisions have limited borrowing powers and all capital projects are centrally funded.

The following is an extract from Tos Limited divisional accounts:
Profit and Loss account for the year ended December 31, 2008:

	₦'m
Turnover	1,200
Cost of sales	1,000
Operating profit	200

Assets employed as at December 31, 2008

	₦'m	₦'m
Fixed Assets (Net)		750
Current Assets (including stocks ₦250m)	450	
Current liabilities	(320)	130
		880

The production engineers of Tos Limited wish to invest in a new computer – controlled press. The equipment cost is ₦140m. The residual value is expected to be ₦20m after four years of operation, when the equipment will be sold to a customer in South Africa.

The new machine is capable of improving the quality of the existing product and also of producing a higher volume. The firm's marketing team is confident of selling the increased volume by extending the credit period. The expected additional sales are:

Year 2009	2,000,000 units
Year 2010	1,800,000 units
Year 2011	1,600,000 units
Year 2012	1,600,000 units

Sales volume is expected to fall over time, due to emerging competitive pressures. Competition will also necessitate a reduction in price by ₦5 each year from the ₦50 per unit proposed in the first year. Operating costs are expected to be steady at ₦10 per unit and allocation of overheads (none of which is affected by the new project) by the Central Finance Department is set at ₦7.50 per unit.

Higher production levels will require additional investment in stocks of ₦5m, which would be held at this level until the final stage of operation of the project. Customers at present settle accounts after 90 days on average.

You are required to:

(a) Determine whether the proposed capital investment is attractive to Tistol Plc, using the average rate of return on capital method, as defined as average profit-to-average capital employed, ignoring debtors and creditors. (10 Marks)

b(i) Suggest any **THREE** problems which may arise with the use of the average return method for appraising new investments. (3 Marks)

(ii) In view of the problems associated with the ARR method, why do companies continue to use it in project appraisal? (2 Marks)

(Total 15 Marks)

SOLUTION 2

HITM Limited manufactures only one product which it sells at ₦40 per unit.
Existing plant has a maximum capacity of 20,000 units per annum at which level net profit is ₦3.00 per unit and the profit/volume ratio is 20%. A new plant is to be purchased, having a maximum capacity of 30,000 units per annum, but which will result in fixed costs being increased by ₦30,000 per annum.

Variable costs will be reduced by ₦8 per unit and to achieve increased sales, the selling price is also to be reduced by ₦8 per unit.

You are required to:

(a) Explain what you understand by the terms Profit/Volume (P/V) ratio and Margin of Safety. (4 Marks)
(b) Calculate the revised P/V ratio as a result of the purchase of the new plant. (4 Marks)
(c) Calculate the number of units which would be required to be produced using the new plant, to give a 50% increase in profit compared with maximum production using the old plant. (5 Marks)

(d) Calculate the margin of safety if the actual level of sales is 25,000 units.

(2 Marks)

(Total 15 Marks)

SOLUTION 3

Kollinton Company Limited operates a standard cost system. The variances of each department are calculated and reported to the departmental manager. It is expected that the manager will use the information to improve his operations and recognize that this is used, in turn, by his superiors when they are evaluating his performance.

Kenny Williams was recently appointed manager of assembly department of the company. He has complained that the system, as designed, is disadvantageous to his department. Included among the variances charged to the departments is one for rejected units. The inspection occurs after the unit has been assembled. The inspectors attempted to identify the causes of the rejection so that the department, where the error occurred, can be charged with it, but some errors cannot be easily identified with a department. These are aggregated and apportioned to the departments according to the number of identified errors. The variance for rejected units in each department is a combination of the errors caused by the department plus a portion of the unidentified causes of rejects.

You are required to:

(a) Explain, with reasons whether Kenny Williams' claim is valid; and

(9 Marks)

(b) Recommend what the company should do to solve its problem with Kenny Williams and to deal with his complaint. (6 Marks)

(Total 15 Marks)

QUESTION 4

Zungu Limited is currently producing at 40% capacity as a result of global economic meltdown. The following data have been extracted from the company's records:

PRODUCTION CAPACITY	30%	50%	75%
	₦	₦	₦
Direct Materials	300,000	500,000	750,000
Direct Labour	600,000	1,000,000	1,500,000
Direct Expenses	150,000	250,000	375,000
Production overhead	220,000	300,000	400,000
Administrative and selling overheads	240,000	300,000	375,000

(a) You are required to prepare a flexible budget at 40%, 60% and 90% if mark-up is 40%; (8 Marks)

(b) Assuming 100% capacity utilization is 100,000 units, you are required to state the unit selling prices at 40%, 60% and 90% capacity utilization; (4 Marks)

(c) Explain the key limitations of your calculations in (a) and (b) above. (3 Marks)

(Total 15 Marks)

QUESTION 5

DTMS is a data processing and maintenance services company, which operates 'zombie part system' for managing its computer parts. Due to the sensitive nature of a part called 'zee', its demand in any week is described by the probability distribution below:

Demand	Probability
1,000	0.07
1,100	0.10
1,200	0.11
1,300	0.13
1,400	0.15
1,500	0.17
1,600	0.13
1,700	0.08
1,800	0.04
1,900	0.02

The company operates a 50-week working year and other inventory related costs as follows:

Price ₦17.50; carrying cost 20%; cost per order ₦250. Desired safety stock 1,000 units and Lead Time is 2 weeks.

You are required to determine:

(a) The economic order quantity (EOQ); (3 Marks)
(b) The optimal number of orders to be placed; (2 Marks)
(c) The stock level at what a re-order should be made; (2 Marks)
(d) If annual unit demand doubles, what is the percentage increase in the EOQ?; (2 Marks)
(e) The elasticity of EOQ with respect to the change in carrying cost if carrying cost decline by 25%; (2 Marks)
(f) The elasticity of EOQ with respect to the change in purchase price if purchase price increases by 50%; and (2 Marks)

(g) The percentage increase in EOQ if cost per order triples. (2 Marks)

(Total 15 Marks)

QUESTION 6

UBT is a long – established and highly centralised company. The company has grown to the extent that its Managing Director, despite having a good supporting team, is finding it difficult to keep up with many decisions of importance in the company. Owing to the above difficulty, the Managing Director decided to reorganise the company into profit centres. These would be product divisions, headed by a divisional managing director, who will be responsible for all the divisions' activities relating to its products.

You are required to state:

(a)(i) **FOUR** types of decision areas that should be transferred to the new divisional managing directors in the re-organisation to achieve its objectives. (4½ Marks)

(ii) **FOUR** of the vital types of decision areas that might reasonably be retained at company's head office. (4½ Marks)

(b) Division L produces a single product. Information for the division for the year just ended is: Sales 500,000 units; Fixed costs ₦440,000,000, Depreciation ₦280,000,000, Residual income ₦70,000,000 and Net Assets ₦1,300,000,000.

Head office assesses divisional performance by the residual income achieved. The cost of capital is 20% per annum.

You are required to determine division L's average contribution per unit. (6 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

PART 1 MULTIPLE CHOICE QUESTIONS

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

Workings

Q.2 Total Standard Cost = ₦(21, 920 + 1,370)

= ₦23,290

Standard Price/kg = $\frac{₦23,290}{6,850}$

= ₦3.40

Q.3 1 Litre x 100/80 = 1.25litres

Q.11 Sales units $= \frac{₦(150,000 + 75,000)}{0.75 \times ₦10}$

$= 30,000$ units

Q.13 Amount payable is the PV of ₦20,000 at 8% from year 0-9 (because it is annuity due)

Amount $= ₦20,000 + 20,000 \left(\frac{1 - (1.08)^{-9}}{0.08} \right)$

$= \underline{\underline{₦144,937}}$

Q.14 PV of outflow $= ₦50,000 \times \left(\frac{1 - (1.12)^{-5}}{0.12} \right)$

$= ₦180,238$

% Charge allowed $= \frac{160,000}{180,238} \times 100\%$

$= \underline{\underline{89\%}}$

Q.15 EOQ $= \sqrt{\frac{2 x 10 x (5,400 \div 2)}{0.10}}$

$= \underline{\underline{300}}$ units

Q.18 Weighted Contribution Margin Ratio:

$= (0.2 \times 30) + (0.3 \times 25) + (0.5 \times 40) = 33.50\%$

Sales ₦ Required $= \frac{\text{Fixed Cost + Desired Profit}}{\text{c/s Ratio}}$

$= \frac{₦120,000 + 34,000}{0.335}$

$= \underline{\underline{₦460,000}}$ (to the nearest ₦1,000)

PART II SHORT ANSWER QUESTIONS

1. Decision making
2. Alternative
3. Controllable cost
4. Level of activity
5. Goodness of fit or line of best fit
6. Mixed
7. 5,000 Units
8. Horizontal or
9. Surplus, Deficit
10. ₦180
11. 7,500 units
12. 15.7%
13. Capital intensive.
14. Customers.
15. Budgeted Profit and Loss Statement, Budgeted Balance Sheet and Budgeted Cash Flow Statement.
16. Market pricing.
17. Notional cost/Imputed cost
18. Committed costs.
19. 36%
20. ₦1,150,000

<u>**Workings**</u>

Q.7 The maximum units of K that can be produced is the lower of:

X 25,000/ 5 = 5,000 units or

Y 24,000/ 4 = 6,000 units

∴ Maximum Production = 5,000 units.

Q.10 Maximum Rate = ₦(120 + ₦60) = ₦180

Q.11 Break even point $= \text{Fixed cost } \dfrac{₦120{,}000}{₦16}$

$= 7{,}500$ units

Q.12 $IRR = 15\% + \left(\dfrac{3{,}664}{(3{,}664 + 21{,}451)} \times (20 - 15)\%\right)$

$= 15\% + 0.73\%$

$= 15.73\%$

Q.19 Changes in output $= R^2 = (0.6)^2$

$= 0.36$ or 36%

Q.20 Relevant cost = Normal Cost + Opportunity Cost

= (10,000 x ₦75) + (10,000 x ₦40)

= ₦1,150,000

SOLUTIONS TO SECTION B

SOLUTION 1- CASE STUDY

TISTOL Plc

Current Return on Capital Employed:

	₦'m
Operating Profit	200
Capital employed:	
Fixed – Net	750
Net Stock	250
	1000

$$\text{RETURN ON CAPITAL EMPLOYED} = \frac{200}{1,000} \times \frac{100}{1} = 20\%$$

Analysis of the Project

Project capital requirements are:

	₦'m
Fixed Capital	140
Stock	5
	145

Annual Depreciation charge (Straight line) is

$$\frac{\text{Fixed Assets - Expected Res. Value}}{\text{Number of years}} = \frac{(140 - 20)}{4} \text{ million}$$

$$= \frac{120}{4} \text{ million per annum}$$

$$= \text{₦30 million per annum}$$

Profit Calculation:

Year		1	2	3	4
Sales (units) in thousands		2,000	1,800	1,600	1,600
Selling price		₦50	₦45	₦40	₦35
		₦'000	₦'000	₦'000	₦'000
Sales	(A)	100,000	81,000	64,000	56,000
Operating costs		20,000	18,000	16,000	16,000
Fixed Costs		15,000	13,500	12,000	12,000
Depreciation		30,000	30,000	30,000	30,000
Total cost	(B)	65,000	61,500	58,000	58,000
Profit	(A) – (B)	35,000	19,500	6,000	-2,000
Cap. Emp. (start of year)					
Fixed		140,000	110,000	80,000	50,000
Stocks		5,000	5,000	5,000	5,000
Total		145,000	115,000	85,000	55,000

Average rate of return $= \dfrac{\text{Average Profit}}{\text{Average Capital Employed}}$

$$= \frac{58{,}500{,}000 / 4}{400{,}000{,}000 / 4} \times 100$$

$$= \frac{14{,}625{,}000}{100{,}000{,}000} \times 100$$

$$= 14.60\%$$

Note: Average Profit $=$ $\dfrac{\text{Profits of years } (1 + 2 + 3 + 4)}{4}$

Comments

The Current ROCE is 20% while the ROCE of the project is 14.6%. Although the ROCE of 14.6% is above the threshold of 10%, if the project is undertaken it will lower the current ROCE.

On this basis, the new press should not be purchased.

(b) (i) The problems which arise with the use of the average return method for appraising a new investment are:

- It does not recognise the time value of money;
- It is an average concept and as such will hide the sizes and timing of the individual cash flows;

- Due to differences in accounting methods, it does not necessarily represent relevant cash flows; and
- There is no universal definition of the appropriate profit and investment to use.

(ii) Companies still use Accounting Rate of Return (ARR) method despite its limitation because of its simplicity and the use of well known accounting values.

SOLUTION 2

(a)(i) The profit/volume ratio (P/V ratio):
It expresses the relationship between contribution and sales, and marks the changes in the percentage of contribution in relation to changes in the volume of sales.

It is calculated thus: $\frac{\text{Contribution}}{\text{Sales}} \times 100$

and remains as a constant percentage provided that there are no changes in the variable cost or selling price per unit.

(ii) The Margin of Safety (MOS):
It is the volume of sales that lies between the break even point and the output being produced (assuming that this is above the break even point). If this is relatively small; a small drop in productive capacity or sales will reduce profit considerably and conversely, if the amount is great, a profit could still be made even after a considerable drop in production.

(b) Present P/V ratio is 20%

As the selling price is ₦40 per unit, the variable costs must be ₦32 per unit.

Revised P/V ratio:
New selling price = ₦40 – ₦8 = ₦32 per unit
New variable cost = ₦32 – ₦8 = ₦24 per unit

Therefore, contribution per unit = ₦8

P/V ratio = $\frac{\text{Contribution}}{\text{Sales}} \times 100$

$= \frac{₦8}{32} \times 100 = 25\%$

(c) Original Profit = ₦3 per unit x 20,000 units = ₦60,000
Required profit = ₦60,000 + 50% of ₦60,000 = ₦90,000
Original contribution = ₦8 x 20,000 units = ₦160,000
Contribution = Fixed cost + Profit i.e. 160,000 – Fixed Cost + 60,000
Therefore, original fixed cost = ₦100,000
Revised fixed cost = ₦100,000 + ₦30,000 = ₦130,000

Level of production required For profit of ₦90,000 $= \dfrac{\text{Revised Fixed cost + Revised Profit}}{\text{Contribution/unit}}$

$= \dfrac{₦130,000 + ₦90,000}{8}$

$= 27,500$ units

(d) Margin of safety = Sales – Sales at Break even point
but Break even point $= \dfrac{\text{Fixed cost}}{\text{Contribution/unit}}$

$= \dfrac{₦130,000}{8}$

$= 16,250$ units

The Margin of Safety is 25,000 – 16,250 units = 8,750 units

SOLUTION 3

(a) Kenny Williams' claim that the system is disadvantageous should be examined in light of the two main categories of rejected units; viz:

(i) Units identified by the inspectors as being rejected because of errors within the assembly department; and
(ii) Rejected units which cannot be identified with a department and are apportioned to the department according to the number of identified rejected units.

Kenny Williams' department is responsible for and should be charged with variances resulting from defective assembly. However, some of the rejects may be caused by defective components, in which case, the department manufacturing the components is responsible. After the unit has been assembled, it may not be possible to determine the original cause of the rejected assembly, and it is this arbitrary method of apportionment of the cost of this type of reject that is causing the problem.

From the above, Kenny Williams' claim is valid because the method of apportioning rejected units which cannot be identified with any department's results is charged with a share of costs that it cannot control.

(b) An attempt should be made to inspect the components before they are assembled, so that manufacturing defects are identified before assembly. Defects arising in the assembly department can then be more accurately identified by their cause.

Nevertheless, if the additional inspection mentioned above is not introduced (because of production delays, increased costs or shortage of inspectors) the arbitrary apportionment of rejected units which cannot be identified by cause should be discontinued.

Under a proper system of responsibility accounting, a manager should only be charged with those costs which he can control, and especially for performance evaluation. A manager should not be charged with any apportionment of costs.

SOLUTION 4

(a) **Flexible Budgets at 40%, 60% and 90%**

	PRODUCTION CAPACITY LEVEL		
	40%	60%	90%
	₦	₦	₦
Materials	400,000	600,000	900,000
Labour	800,000	1,200,000	1,800,000
Direct Expenses	200,000	300,000	450,000
Prime Cost	1,400,000	2,100,000	3,150,000
Var. Prod. Overhead	160,000	240,000	360,000
Marginal Prod cost	1,560,000	2,340,000	3,510,000
Selling/Admin Ov	120,000	180,000	270,000
Total marginal cost	1,680,000	2,520,000	3,780,000
Fixed cost:			
Production	100,000	100,000	100,000
Admin/selling	150,000	150,000	150,000
Total cost	1,930,000	2,770,000	4,030,000
Profit – 40% mark-up	772,000	1,108,000	1,612,000
Sales Revenue	2,702,000	3,878,000	5,642,000

(b) If the maximum production capacity is 100,000 units, then 1% activity level is 1,000 units (100,000/100)
40% level is 40,000 units; 60% is 60,000 units and 90% is 90,000 units.

From the above, the unit selling price at:

40% level = ₦2,702,000/40,000 = ₦67.55
60% level = ₦3,878,000/60,000 = ₦64.63
90% level = ₦5,642,000/90,000 = ₦62.69

(c) The key limitations in the above calculations include:

(i) The unit variable cost is assumed to remain constant at all given levels. In practice, however, this may change at higher level of output;
(ii) The company may obtain bulk purchase discount on raw materials;
(iii) The assumption that total fixed cost remains constant whereas this may change at higher level of output;
(iv) Possible effects of inflation has been ignored; and
(v) Accuracy of the forecast may be in doubt.

Workings

(a) Separation of Semi-Variable Cost:

(i) Var. Production overhead = (400,000 – 220,000)/(75% - 30%) =₦4,000 to 1%
(ii) Var. Selling & Admin = (375,000 – 240,000)/(75% - 30%) = ₦3,000 to 1%
(iii) Fixed Production Overhead = 220,000 – (30% x ₦4,000) = ₦100,000
(iv) Fixed Selling & Admin Overhead = 240,000 – (30% x ₦3,000) = ₦150,000

SOLUTION 5

DTMS LIMITED

Average weekly Demand

Demand (d)	Probability (p)	D(p)
1,000	0.07	70
1,100	0.10	110
1,200	0.11	132
1,300	0.13	169
1,400	0.15	210
1,500	0.17	255
1,600	0.13	208
1,700	0.08	136
1,800	0.04	72
1,900	0.02	38
		1,400 x 50 = 70,000

(a) EOQ $= \sqrt{\frac{2DS}{H}} = \sqrt{\frac{2X70,000X250}{17.50X20\%}} = \sqrt{\frac{140,000X250}{3.5}}$

= 3,162 units

(b) Optimal number of order = $\frac{70,000}{3,162}$ = 22 times

(c) Re-order level = Safety stock + Consumption within lead time

= 1,000 + (2 x 1,400)

= 3,800 units

(d) If sales double, then D = 140,000

EOQ = $\sqrt{\frac{2x140,000x250}{3.5}}$ = 4,472

= $\frac{4,472 - 3,162}{3,162}$ x 100 = 41.43%

(e) If carrying cost declines by 25% or ₦3.5 x 75% = ₦2.625

EOQ = $\sqrt{\frac{2x70,000x250}{2.625}}$ = 3,652

% increase is = $\frac{3,652 - 3,162}{3,162}$ x 100 = 15.5%

(f) If purchase price increases by 50% or ₦17.50 x 150% = ₦26.25

Carrying cost = 20% of ₦26.25 or ₦5.25

EOQ = $\sqrt{\frac{2x70,000x250}{5.25}}$ = 2,582

% decrease = $\frac{3,162 - 2,582}{3,162}$ x 100 = 18.3%

(g) If cost per order triples:

EOQ = $\sqrt{\frac{2x70,000x750}{3.5}}$ = 5,477

% increase = $\frac{5,477 - 3,162}{3,162}$ x 100 = 73.2%

SOLUTION 6

(a)(i) Four types of decision areas that should to be transferred to the new divisional managers include:

* Product decisions.

* Employment decision outside appointment of senior personnel.
* Short – term operating decision.
* Short – term financing decision (with some constraints).

(ii) Four of the vital decisions to be retained at company's head office include:
* Strategic investment decisions.
* Capital expenditure decisions above certain limits.
* Appointment of top managers.
* Sourcing decisions like bulk procurement of raw materials.

(b) The answer requires working backwards in order to derive divisional contribution. This is presented below:

	₦'000
Cost of capital charge	260,000 (₦1.3m x 20%)
Profit	330,000
Depreciation	280,000
Fixed Costs	440,000
Total Contribution	1,050,000

Contribution per unit = ₦1,050,000,000 ÷ 500,000 units = ₦2,100

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
FINANCIAL ACCOUNTING

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. Which of these is **NOT** a characteristic of useful accounting information?
   A. Relevance
   B. Conservative
   C. Objectivity
   D. Consistency
   E. Timeliness.

2. The following are objectives of financial statements, **EXCEPT**:

   A. Reveal the wealth of the business
   B. Identify, measure and record transactions
   C. Act as language of business
   D. Report to owners on stewardship of management
   E. Provide information / data for management decision making.

3. Where the Real Capital Maintenance concept is adopted when determining the profit for the year of a company, the profit so determined will be:

   A. greater than the profit where Money Capital Maintenance concept is adopted.
   B. less than or equal to the profit where Money Capital Maintenance concept is adopted.
   C. exactly equal to the profit where Money Capital Maintenance concept is adopted.
   D. less than the profit where Money Capital Maintenance concept is adopted.
   E. greater than or equal to the profit where Money Capital Maintenance concept is adopted.

4. An extract from the profit and loss account and balance sheet of a life assurance company revealed the following:

Gross premium received	₦3.8 million
Profit after tax	₦0.65 million
Issued ordinary share capital	₦3 million
Contingency reserve	₦2.974 million

Calculate the amount to be transferred to contingency reserve in the year.

A. ₦38,000
B. ₦65,000
C. ₦29,740
D. ₦30,000
E. ₦26,000

Use the following information to answer questions 5 and 6

Julian – Abel Ltd. Statement of Affairs

	₦ '000		₦'000
Preference shares of ₦ 1 each fully paid	2,000	Bank balance	1,984
Ord. shares of ₦ 1 each fully paid	3,000	Deficiency	3,496
Ord. shares of ₦ 1 each 60k paid	480		
	₦5,480		₦5,480

5. Calculate the deficiency per ordinary share.
   A. 64 kobo
   B. 93 kobo
   C. 92 kobo
   D. ₦1.00
   E. 60 kobo.

6. Calculate the amount of call on the partly paid ordinary shares.
   A. ₦ 272,000
   B. ₦40,000
   C. ₦ 320,000
   D. ₦ 264,000
   E. ₦ 256,000.

7. If you wish to assess the efficiency of a company, which of these ratios would you use?
   A. Interest cover
   B. Return on capital employed
   C. Stock turnover
   D. Acid test ratio
   E. Dividend yield.

8. The product of Dividend Yield and P/E Ratio is
   A. Earnings per share
   B. Dividend pay-out ratio
   C. Earnings yield
   D. Dividend cover
   E. Gearing ratio.

9. A final debit balance in a voyage account is referred to as:
   A. Loss on voyage
   B. Capital on voyage
   C. Reserve on voyage
   D. Profit on voyage
   E. Commission on voyage.

10. In construction contract, the value of certificate can be determined using one of the following relationships:
   A. Cost to date plus cash retention
   B. Cash received less cash retention
   C. Contract price minus cash retention
   D. Cash received plus cash retention
   E. Cost to date less cash retention.

11. According to the Prudential Guidelines of CBN, at what rate are banks required to make provision in respect of lost risk assets?
   A. 30%
   B. 20%
   C. 100%
   D. 10%
   E. 50%.

12. Obiora Insurance Company was incorporated on December 31, 2008 to carry out Reinsurance business. State the required minimum paid up capital as provided for in the Insurance Act of 2007.
   A. ₦150 million
   B. ₦500 million
   C. ₦10 billion
   D. ₦2 billion
   E. ₦3 billion.

13. In the context of SAS 20, abridged financial statements should contain the following **EXCEPT:**
   A. Accounting policies
   B. Chairman's statement
   C. Profit and loss account for the financial year
   D. Names of Directors and their shareholdings
   E. Dividends paid or proposed.

14. From the provisions of Banks and other Financial Institutions Act, 2003, which of these is not a source of revenue for a commercial bank?
   A. Syndication fee.

B. Arrangement fee
C. Commitment fee
D. Balancing fee
E. Sale of commercial papers.

15. Sweet Plc sold goods worth ₦ 240,000 to its subsidiary. The goods were invoiced at cost plus 20%. At the accounting year end, three quarters of the goods have not been sold. Calculate the unrealized profit in stock for consolidation purpose.
A. ₦30,000
B. ₦10,000
C. ₦12,000
D. ₦36,000
E. ₦20,000.

Use the following information to answer questions 16 and 17.

Ashina Plc acquired 75% interest in the equity shares of Ike Ltd. at a cost of ₦180,000 in August, 2008. An extract of Ike Ltd's balance sheet on that date revealed the following:

Ordinary shares of ₦ 1 each, fully paid	₦200,000
10% Preference shares of ₦ 1 each, fully paid	₦100,000
Reserves	₦50,000

16. Calculate the Net Asset Acquired by Ashina Plc.
A. ₦180,000
B. ₦150,000
C. ₦137,500
D. ₦225,000
E. ₦187,500.

17. Calculate the non-controlling interest if Ashina Plc in addition to the equity shares also acquired 40% interest in the preference shares of Ike Ltd.
A. ₦75,000
B. ₦62,500
C. ₦122,500
D. ₦132,500
E. ₦115,000.

18. Where a subsidiary company issued bonus shares after the holding company had gained control, on consolidation at year end:
A. positive goodwill or negative goodwill will change.
B. positive goodwill will be greater than negative goodwill

C. negative goodwill will be greater than positive goodwill
D. positive goodwill or negative goodwill will remain the same
E. negative goodwill and positive goodwill will increase.

19. In developing a computerized accounting system, the cost of staff training is considered to be
A. One – off cost (capital).
B. On-going cost (Revenue).
C. Special cost.
D. On-going cost (capital).
E. One-off cost (Revenue).

20. A processing system in which multiple users concurrently engage in a series of interactions via remote terminal devices is called
A. time sharing.
B. stand-alone.
C. interactive system.
D. batch processing.
E. real time.

PART II SHORT ANSWER QUESTIONS (20 Marks)

1. The capital maintenance concept which looks at the output which could be generated by the initial holding of assets is known as ....

2. Financial statements are prepared on 'break-up' basis during .... situation.

3. Mention **ONE** objective of financial statements.

4. State **TWO** basis of classifying or analyzing loans and advances in a commercial bank.

5. The ratio of the most liquid asset in the financial statements of a company to the current liabilities is known as

6. In group cash flow statement, dividends received from associates should be shown as separate cash inflow under .... activities.

7. Money borrowed by directors of a company for the purpose of paying workers salaries will during liquidation rank as .... creditors.

Use the following information to answer questions 8 and 9.

Ebuka Ltd purchased ₦100,000 6% BATA Debentures on May 1, 2005 at 67 ¼ ex-div. On September 1, 2005, Ebuka Ltd. sold ₦40,000 worth of the Debentures at 70 ex-div. BATA Debentures interest is payable every quarter.

8. Calculate the cost of the investment purchased to be recorded in the Investment Account.

9. Calculate the interest income to be received on September 30, 2005.

10. Where sinking fund method is used to provide funds for the redemption of a Debenture, the double entry to record the investment of the first instalment.

11. State any two of the classifications of investment according to SAS 13.

12. In line with SAS 16, there are two bases of accounting for General Insurance Business. Name them.

13. In line with the provisions of Banks and other Financial Institutions Act 2003, state **TWO** ways of classifying loans and advances.

14. Section 158 of CAMA Cap C20 LFN 2004 provides that Redeemable Preference Shares shall not be redeemed unless they are fully paid. State one way or method of redeeming Preference Shares.

Use the following information to answer questions 15 -17.

Bitter Plc purchased 150,000 ordinary shares of Honey Ltd. for ₦240,000 in 2005 when the reserves of Honey Ltd was ₦124,600. At the year ended December 31, 2008, the stock of Honey Ltd included goods worth ₦120,000 purchased from Bitter Plc. It is the policy of Bitter Plc to invoice goods at cost plus 20%

Balance sheet extract as at December 31, 2008

	Bitter Plc	Honey Ltd
	₦	₦
Ordinary shares of ₦ 1 each fully paid	200,000	-
Ordinary shares of 50k each fully paid	-	100,000
Reserves	320,000	250,600

15. Calculate the goodwill for consolidation purposes.

16. Calculate the amount of non-controlling interest to be disclosed in consolidated balance sheet as at December 31, 2008.

17. Determine the amount of the Consolidated Reserves as at December 31, 2008.

18. Hat Plc owns 80% and 20% of the ordinary shares of Shoe Plc and Trouser Plc respectively. Shoe Plc also owns 60% of the ordinary shares of Trouser Plc. Determine Hat Plc's interest in Trouser Plc for consolidation purpose.

Use the following information to answer questions 19 and 20.

Benjack Trading Company Nigeria Ltd. uses the following codes in its nominal ledger:
3000/1001/0009 sales of computers in Abuja
3000/1020/0014 sales of photocopiers in Lagos
1500/1030/0003 purchase of printers from Enugu
1500/1040/0006 purchase of keyboards from Kano.
State the code of the following.

19. Purchase of photocopiers from Abuja.

20. Sales of printers in Lagos.

SECTION – B

QUESTION 1 - CASE STUDY

Chief Oyibo, the Chief Executive Officer of Oyibo-Oyibo Ltd. has some reservations about the liquidity situation of his company. The company's latest balance sheet was made up as at June 30, 2009 and is summarized below:

Balance Sheet

Fixed Assets:	₦ '000	₦ '000	₦ '000
Freehold land and building			180,000
Plant and machinery			86,600
Motor vehicle			32,400
Current Assets			
Stock		46,200	
Debtors		69,150	
Cash at hand		2,550	
		117,900	
Current Liabilities:			
Creditors	(76,500)		
Bank overdraft	(50,600)	(127,100)	(9,200)
			289,800

Financed By	₦ '000
Ordinary share capital of ₦ 1 each fully paid	120,000
8% redeemable preference shares of ₦ 1 each 80 kobo paid	80,000
Revenue Reserve	19,800
10% Debenture (with floating charge)	70,000
	₦289,800

Chief Oyibo while contemplating on the way forward received a memo from the financial controller of the company reminding him that the 8% Redeemable Preference Shares will be due for redemption at a premium of 10 Kobo per share on September 30, 2009. At this point, Chief Oyibo decided to approach his Bank for a loan of ₦100 million.

The bankers Progressive Alliance Bank Ltd. on receipt of the application for the ₦100 million loan, directed the loans and advances manager to appraise the application putting into consideration the performance of the existing loans and advances portfolio of the Bank. A performance analysis of the loans and advances showed the following details:

	₦ '000
Performing	468,570
Non- performing: Substandard	118,740
Doubtful	27,020

Lost	17,610
	₦631,940

Chief Oyibo visibly worried that his bankers may not approve his application for loan due to the global economic meltdown, approached a consultant to advise him whether to accept the available take over bid or go for outright liquidation. The consultant examined the takeover bid made by Bobo-keke Nigeria Ltd to Chief Oyibo which reveals the following terms:

(a) That all the assets and liabilities of Oyibo-Oyibo Ltd. except cash at hand and the bank overdraft are to be taken over.

(b) The purchase consideration for the business acquired is to be the amount which Bobo-keke Nigeria Ltd would have to invest at 15% per annum to yield the weighted average profit of the past three years. The weights are 1:2:3 respectively.

Profits for the purpose of determining the purchase consideration are as follows:

	₦ '000
2007	35,000
2008	47,000
2009	53,000

The purchase consideration is to be satisfied as follows:

i. 5% preference shares are to be issued for half the value of freehold land and building.

ii. The debenture holders were to be allotted such debentures in Bobo-keke Ltd bearing interest at 7 ½ % per annum as would bring them the same amount of interest.

iii. 80% of the remaining purchase consideration is to be satisfied by the issue of ordinary shares in Bobo-keke Nigeria Ltd at a premium of 5 kobo per share.

iv. The remainder of the purchase consideration is to be satisfied by cash.

In the event of liquidation however, the assets of Oyibo-Oyibo Ltd. are estimated to be realized as follows:

	₦ '000
Freehold Land and Buildings	185,200
Plant and Machinery	49,650
Motor Vehicles	22,980
Stock	31,850

Of the debtors, 22% are not recoverable while ₦26,500,000 of the creditors have preferential claims. The remaining creditors will accept a dividend of 90 kobo in the Naira in full settlement.

It was also discovered that six months interest on the debentures is in arrears. Also,the preference shareholders are to receive a premium of five kobo per share during liquidation. The liquidation cost and expenses are estimated to be ₦20,400,000.

Required:

(i) Given the industrial ratio of 2:1 and 1.5:1 for current and acid test ratios respectively, comment on the liquidity position of Oyibo-Oyibo Ltd. (3 Marks)

(ii) State the conditions and ways of redeeming preference shares as provided in CAMA Cap C20 LFN 2004. (2 Marks)

(iii) Determine the amount of provisions for doubtful accounts which the Progressive Alliance Bank Ltd. must show in its financial statements for the year. (2 Marks)

(iv) How much is the amount of purchase consideration offered by Bobo-keke Nigeria Ltd for the take-over and how will it be settled? (5 Marks)

(v) Prepare the deficiency account if the company is eventually liquidated. (3 Marks)

(Total 15 Marks)

QUESTION 2

The trial balance of Adanna Commercial Bank Nigeria Plc as at December 31, 2008 are summarized below:

	₦ 'million	₦ 'million
Service charges / commissions		46,105
Other fees		5,726
Income on foreign exchange deals		9,442
Income from equipment lease		3,537
Interest paid in Nigeria	20,439	
Operation expenses	9,577	
Taxation		227
Dividend payable		4,382
Accruals for interest payable		2,862
Income received in advance		2,990
Statutory reserve		3,125
Reserves for bonus issue		3,000

Reserves for small and medium industry		2,050
Deposits		270,406
Money at call and short notice from banks in Nigeria		60,196
Retained profits		1,793
Freehold premises	10,735	
Accumulated depreciation-premises		1,672
Motor vehicles	5,070	
Accumulated depreciation-vehicles		1,755
Furniture and fittings	3,685	
Accumulated depreciation-furniture & fittings		1,735
Equipment leasing	3,000	
Accumulated depreciation-equipment		1,534
Ordinary shares of ₦1 each fully paid		23,575
10% Preference shares of ₦1 each, fully paid		7,200
Loans and advances	151,430	
Provision for debtors		4,657
Interest debtors	5,067	
Prepayments	2,304	
Other debtors	3,979	
Quoted investments	1,000	
Cash in hand	140	
Balance with Central Bank of Nigeria	4,755	
Other incomes		350
Money at calls and short notice with banks in Nigeria	3,134	
Balance with other banks outside Nigeria	21,399	
Treasury bills	207,091	
Bill discounted payable in Nigeria	5,514	
	458,319	458,319

Additional information **(figures in ₦'m):**

a. Operation expenses include depreciation charge of ₦2,318; directors fees of ₦144 and their salaries ₦252 and auditor's remuneration of ₦102.

b. The loans and advances were made up of:

	₦
Secured against real estate	50,241
Otherwise secured	90,349
Unsecured	10,840

c. Additional bad debts provision of ₦221,213 is to be made while ₦285 is to be written off in respect of unsecured debts.

d. Deposits consist of:

Demand	31,662
Time	90,402
Savings	148,342

e. Of the interest paid in Nigeria ₦7,102 was to banks.

f. Provide for:
   (i) A transfer to reserve for bonus issue of ₦1,170 and other relevant mandatory reserves.
   (ii) Dividend of 6 kobo per ordinary share and dividend payable on the preference shares.
   (iii) Income tax on profit for the year ₦2,418 and education tax of ₦592. A deferred tax of ₦450 on the excess capital allowances over depreciation charge should be provided for.

Required:

Prepare the Profit and Loss Account for the year ended December 31, 2008 and the Balance Sheet as on that date in a form suitable for publication. **(Total 15 Marks)**

QUESTION 3

The Consolidated Profit and Loss Account of Daura Group for the year ended June 30, 2009 are detailed below:

	₦ '000	₦ '000
Turnover		873,109
Gross profit before interest		70,305
Interest		(32,370)
		37,935
Group share of associate company's profit		902
		38,837
Exceptional charge		(5,115)
Profit before taxation		33,722
Taxation	10,831	
Group share of Associate company's taxation	425	(11,256)
Profit after taxation		22,466
Non-controlling interest		(1,175)
		21,291

Extra – ordinary gain	1,060
	22,351
Dividends	(6,433)
Retained profit	15,918

Other relevant information:

a. Gross profit before interest is stated after charging

After charging:	₦ '000
Depreciation	19,201
Audit fees and expenses	2,194
Rents and insurance	5,705
Directors' allowances	623
And after crediting:	
Property rents received	1,147
Realized exchange surplus	608

b. Interest comprises:

Interest on 8% loan stock	16,585
Interest on short term loan	13,315
Bank interest	7,146
	37,046
Bank interest receivable	(4,676)
	32,370

c. Taxation

	₦ '000
Income tax on profit for the year	9,188
Education tax	1,642
Deferred tax provision	2,500
	13,330
Adjustment for prior year	(2,499)
	10,831

d. Dividends

Ordinary: Interim paid	2,461
Final payable	3,070
Preference	902
	6,433

e. The exceptional charge of ₦5,115,000 represents a provision for contingent losses resulting from obsolete inventory discovered in the warehouse.

f. Dividend received and receivable from the associated company for the year amounted to ₦264,000 while dividend paid and payable to Non-controlling shareholders for the same period amounted to ₦605,000.

g. The total amounts distributed on behalf of employees including directors during the accounting year are as detailed below:

	₦ '000
Wages, salaries and commissions	96,965
Retirement plan costs	6,460
Other benefits	2,784

Required:
Prepare a Statement of Value Added for the year ended June 30, 2009, showing clearly the contribution of the Non-controlling interest towards the expansion of assets.

(Total 15 Marks)

QUESTION 4

Nightgale Ltd. issued ₦5million 8% Debentures at 105 on January 1, 2005. The term under which the debentures were issued provided that a sinking fund be set up for the redemption of the Debentures 5 Years later. The sum to be set aside every year should be such that when invested annually at a compound interest rate of 12% per annum will amount to ₦6million at the due date of redemption of the debentures. Interest is paid on the debentures on March 31, and September 30 every year.

The Debentures were redeemed on December 31, 2009 at a premium of 10%. To provide cash for the redemption, the sinking fund investment was sold for ₦5,750,000.

You are required to show the following accounts:

(a) Sinking Fund Account (6 Marks)
(b) Sinking Fund Investment Account (7 Marks)
(c) Sinking Fund Investment Disposal Account. (2 Marks)

(Total 15 Marks)

QUESTION 5

Information System Development consists of the stages and tasks in a typical life cycle of a project.

Required:

a. Outline **EIGHT** of the duties or job description of a Systems Manager. (8 Marks)

b. According to SAS 25, an entity carrying on telecommunication activities shall disclose certain information in its notes to financial statements. State or mention the information required to be so disclosed. (7 Marks)

(Total 15 Marks)

QUESTION 6

(a) In line with SAS No. 5 on construction contracts, you are required to define the following:
   (i) Percentage Of completion method
   (ii) Completed contract method
   (iii) Deferred Costs
   (iv) Under – billings
   (v) Over – billing. (5 Marks)

(b) Ikeredu South local government had awarded a contract to construct classrooms in all the primary schools in the local government areas to XYZ Construction Ltd. The construction company had done several contracts to the local government and during the financial year ended 30 June, 2009, the following information was supplied on the projects:

(i) **Ikeredu South Contract No. 1001**
Commencement date: July 1, 2007
Estimated time of Completion: September 30, 2009
Contract Price: ₦720, 000,000.
Work certified as completed up to 30 June, 2009 ₦540, 000,000
Amount received by the contractee: ₦450, 000,000

(ii) **Costs spent to date, June 30, 2009**

	₦
Bricklayer wages	273,000,000
Cements and gravels	108,000,000
Others overheads	54,000,000
Proportion of head office cost	18,000,000
Equipment sent to site	27,000,000

On completion of the contract, the equipment valuation is expected to be ₦3,000,000 and as at June 30, 2009 the value of the equipment was

₦7,800,000. The cements and gravels not used as at June 30, 2009 were ₦9,000,000.

To complete the contract on September 30, 2009, the following costs are to be incurred:

	₦
Bricklayer wages	30,000,000
Cements and gravels [excluding stock at September 30, 2009)	36,000,000
Other associated expenditure	24,000,000

On June 30, 2009, an architect estimated the value of the completed work to be ₦57,000,000 and this was not included in the original certification.

As at the end of the year, it seems that the contract will soon be completed, and profits are recognized only if the proportion of work done was significant.

You are required to prepare:

(i) Contract accounts in the books of **XYZ construction Ltd.** for the year ended June 30, 2009.

(ii) Contractee Account

(iii) Balance sheet extract as at that date. (10 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

PART I – MULTIPLE CHOICE QUESTIONS

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

TUTORIALS

4.	Maximum amount of contingency reserve	=	₦3,000,000
	Less:- current contingency reserve	=	₦2,974,000
			₦26,000

N.B The amount of contingency reserve is restricted to the issued share capital by the Insurance Act provision.

5. Deficiency per share $= \dfrac{\text{total Deficiency}}{\text{Nominal value of ordinary shares capital}}$

$= \dfrac{3{,}496{,}000}{3{,}800{,}000} = \underline{\underline{92 \text{ kobo}}}$

6. Call on partly paid shares = (92 kobo - 60 kobo) x 800,000 shares

= $\underline{\underline{₦256{,}000}}$

15. Unrealised profit $= \dfrac{20}{120} \times 240{,}000 \times \frac{3}{4} = \underline{\underline{₦30{,}000}}$

16. Net Asset Acquired $= \dfrac{75}{100} \times (₦200{,}000 + N50{,}000) = ₦\underline{\underline{187{,}500}}$

17. Non-controlling $= \dfrac{25}{100}(₦200{,}000 + ₦500{,}000) + \dfrac{60}{100} \times \dfrac{100{,}000}{1}$

$= \underline{\underline{₦122{,}500}}$

PART II – SHORT ANSWER QUESTIONS

1. Operating capital maintenance concept

2. Bankruptcy or liquidation

3. a. Identify, measure and record transactions
   b. Acts as language of business and financial transactions
   c. Report to owners on stewardship of management
   d. Provide data for management decision making

4. a. By security
   b. By performance or quality
   c. By maturity

5. Cash ratio

6. Operating

7. Preferential.

8. ₦68,250 = (₦67250 + ₦1,000 2 months interest forfeited)

9. ₦ 1,500 = $\left(\frac{6}{100} \times 100{,}000 \times \frac{3}{12}\right)$

10. Debit: Debenture sinking fund investment A/C
    Credit: Bank A/C

11. Short-term Investment
    Long-term Investment
    Investment Properties
    Medium-term investment

12. a. Annual accounting basis
    b. Deferred annual accounting basis

13. a. Secured on real estate
    b. Otherwise secured
    c. Unsecured

14. a. Out of the profits of the company
    b. Out of the proceeds of a fresh issue of shares made for the purpose of the redemption

15. Positive goodwill ₦ 71,550 $=(240,000 - \frac{75}{100}$ (₦1100,000+124,600).

16. Non – controlling interest = ₦87,650 $=(\frac{25}{100} \times (100,000+ 250,600)$.

17. Consolidated Reserve ₦414,500 = ₦320,000+ $\frac{75}{100}$ (250,600 – 124,600).

18. 68% = (80% of 60%) + 20%

19. 1500/1020/0009

20. 3000/1030/0014

SOLUTIONS TO SECTION B

SOLUTION 1 - CASE STUDY

a. Current ratio = $\frac{CA}{CL}$ = $\frac{₦117,900}{₦127,100}$ = 0.93:1

Acid test ratio = $\frac{\text{CA less stock}}{CL}$ = $\frac{₦71,700}{₦127,100}$ = 0.56:1

Comment:

Oyibo-oyibo Ltd has a very serious liquidity problem with a current ratio of 0.93:1 and Acid ratio of 0.56:1. The situation is terrible given that the ratios of Oyibo – Oyibo Ltd. are more than two times worse than the industrial average.

b. According to Section 158 of CAMA Cap C20 LFN 2004, the conditions and ways of redeeming preference shares are:

i. The shares to be redeemed must be fully paid.
ii. Any premium payable on redemption shall be provided for out of the company's profits or share premium.
iii. Redemption of shares shall be made only out of:
- the profits of the company which would otherwise be available for dividend or
- the proceeds of a fresh issue of shares made for the purposes of the redemption

iv. Where shares are redeemed out of the profits of the company, a sum equal to the nominal value of the shares redeemed shall be transferred from the profits of the company to a special fund called Capital Redemption Reserve Fund.

c. Provisions for doubtful accounts

Loans and Advances:	₦ '000	rate	₦ '000
Performing	468,570	10%	46,857
Non–performing:			
Substandard	118,740	10%	11,874
Doubtful	27,020	50%	13,510
Loss	17,610	100%	17,610
			₦ 89,851

d. (i) Calculation of purchase consideration:

Year	Weight	Profits ₦ '000	Weighted profits ₦ '000
2007	1	35,000	35,000
2008	2	47,000	94,000
2009	3	53,000	159,000
	6		288,000

Weighted Average Profit = ₦288,000 /6 = ₦48,000

Amount to yield the weighted average Profit at 15% = $\frac{₦48,000}{0.15}$ = ₦320,000

(ii) Settlement/component of purchase consideration:

	₦ '000
5% preference shares of ₦ 1 each (180,000 / 2)	90,000
7 ½ debentures (₦ 7000 / 0.075)	93,333
Ordinary shares at 5 kobo premium (0.8 x ₦ 136,667 x 1.05)	114,800
Cash (Balance)	21,867
	₦320,000

e. Deficiency Account

	₦ '000	₦ '000
Items contributing to deficiency:		
Losses written of assets:		
Plant and machinery	36,950	
Motor vehicle	9,420	
Stock	14,350	
Debtors	15,213	75,933
Other costs and expenses:		
Liquidation cost & expenses	20,400	
Debenture interest	3,500	
Preference premium	5,000	28,900
		104,833
Items reducing deficiency:		
Gain in value of freehold building	5,200	
Creditors discount (10k x 50,000)	5,000	
Revenue Reserve	19,800	(30,000)
Deficiency		₦74,833

SOLUTION 2

Adanna Commercial Bank Nig. Plc

(i) Profit and Loss account for the Year ended December 31, 2008

	Notes	₦ 'Million	₦ 'Million
Gross earnings	(1)		65,160
Interest paid	(2)		(20,439)
			44,721
Operation expenses	(3)	9,577	
Provisions for bad and doubtful debts	(4)	21,498	(31,075)
Profit before taxation			13,646
Taxation	(5)		(3,460)
Profit after taxation			10,186
Appropriation:			
Statutory reserve 15%		1,528	
Reserve for small and medium scale industries 5%		509	
Reserve for bonus issue		1,170	
Dividend – preference		720	
Ordinary		1,415	(5,342)
Retained profit for the year			4,844
EPS			40k

(ii) Adanna Commercial Bank Nig. Plc

Balance Sheet as at December 31, 2008

	Notes	₦ 'million
Cash and short term funds	(6)	215,120
Due from other banks		21,399
Bills discounted		5,514
Investments – quoted		1,000
Loans and advances	(7)	125,275
Other assets	(8)	11,350
Fixed assets	(9)	15,794
		₦ 395,452
Deposits and current accounts	(10)	270,406
Due to other banks		60,196
Taxation (3,460 + 227)		3,687
Dividend payable (4,382 + 720 + 1415)		6,517
Other liabilities	(11)	5,852

Shareholders funds:	
Ordinary shares of ₦1 each fully paid	23,575
10% preference shares of ₦ 1 each fully paid	7,200
Statutory reserves (3125 + 1528)	4,653
SMIEIS reserves (2050 + 509)	2,559
Reserves for Bonus issue (3000 + 1170)	4,170
Retained profits (1793 + 4844)	6,637
	₦395,452

Notes to the accounts:

1. Gross Earnings:

	₦ 'Million
Service charges/Commission	46,105
Other fees	5,726
Income from equipment lease	3,537
Income on foreign exchange deals	9,442
Other income	350
	₦65,160

2. Interest paid in Nigeria:

To banks	7,102
Other customers	13,337
	₦20,439

3. Operation Expenses:

Depreciation charge	2,318
Directors fees	144
Directors salaries	252
Auditors remuneration	102
Others	6,761
	₦9,577

4. Provision for Bad and Doubtful debts:

	P&L	B/S
Provision b/f	-	4,657
Provision for the year	21,213	21,213
Bad debt written off for the year	285	-
Provision c/f	21,498	25,870

5. Taxation:

Income tax for the year	2,418
Education tax	592
Deferred tax	450
	3,460

6. Cash and Short Term Funds:

Cash in hand		140
Balance with Central Bank of Nigeria		4,755
Monet at call and short notice with banks		3,134
Treasury Bills		207,091
		215,120

7. Loans and Advances:

Secured on real estate		50,241
Otherwise secured		90,349
Unsecured	10,840	
Less bad debts written off	(285)	10,555
Provision for doubtful debts c/f		(25,870)
		₦125,275

8. Other Assets:

Interest debtors	5,067
Prepayment	2,304
Other debtors	3,979
	₦11,350

9. Fixed Assets:

	Freehold premises	Motor vehicles	Furniture & fittings	Equipment	Total
Cost	10,735	5,070	3,685	3,000	22,490
Accum.Dep.	(1,672)	(1,755)	(1,735)	(1,534)	(6,696)
NBV	9,063	3,315	1,950	1,466	15,794

10. Deposits and Current Accounts:

Demand	31,662
Time	90,402
Savings	148,342
	₦270,406

11. Other liabilities:

Accrued for interest payable	2,862
Income received in advance	2,990
	5,852

SOLUTION 3

Daura Group

Value Added Statement for the Year ended June 30, 2009

	₦ '000	₦ '000		%
Turnover		873,109		
Bought in-materials and services (W1)		681,619		
Value added by the group		191,490		
Non-trading income:				
Property rent received	1,147			
Realized exchange surplus	608			
Exceptional charge	(5,115)			
Extra ordinary gain	1,060			
Share of profit from associated company	902	(1,398)		
VALUE ADDED		₦190,092		100
Applied as follows:				
To pay employees:				
Wages, salaries and commission		96,965		
Retirement plan costs		6,460		
Other benefits		2,784		
		106,209	55.9	
To pay Government:				
Taxation				
		11,256	5.9	
To pay providers of capital:				
Interest on money borrowed		29,900		
Dividends – to other shareholders		6,433		
- to non-controlling interest		605		
		36,938	19.4	
Retained in the Business for Expansion:				
Depreciation		19,201		
Profit re-invested: by non-controlling interest		570		
By other shareholders		15,918		
		35,689	18.8	
VALUE ADDED		190,092	100%	

Workings:

1. Calculation of Bought in materials and services:

		₦ '000	₦ '000
	Turnover		873,109
	Less Gross profit before interest		70,305
	Total net cost before interest		802,804
Less:			
	Depreciation	19,201	
	Wages, salaries and commission	96,965	
	Retirement plan costs	6,460	
	Other benefit	2,784	(125,410)
Add	Property rents received	1,147	
	Realized exchange surplus	608	1,755
Add			
	Net bank interest (7146 - 4676)		2,470
			681,619

SOLUTION 4

a. **Sinking Fund Account**

31/12/05 Bal c/d (wi)	944,510	31/12/05 P&L	944510
		1/1/06 Bal. b/f	944510
(31/12/06) Bal c/d	2,002,250	P&L	944510
		Sinking Fund Invt.	113,230
	2,002,250		2,002,250
31/12/07 Bal c/d	3,187,010	1/1/07 Bal b/f	2,002,250
		P&L	944,510
		Sinking Fund Inv.	240,250
	3,187,010		3,187,010
31/12/08 Bal c/d	4,513,970	1/1/08 Bal b/f	3,187,010
		P&L	944,510
		Sinking fund inv	382,450
	4,513,970		4,513,970
31/12/09 Premium;		1/1/09 Bal b/f	4,513,970
On Redemption	500,000	P&L	944,510
Re Deb Interest	100,000	Sinking Fund Inv	541,520
Sinking fund Inv(loss)	250,000		
Gen Reserve	5,150,000		
	6,000,000		6,000,000

b. **Sinking Fund Investment Account**

31/12/05 Bank	944,510	31/12/05 Bal c/d	944,510
1/1/06 Bal b/f	944,510	31/12/06 Bal c/d	2,002,250
Bank	944,510		
Sinking Fund	113,230		
	2,002,250		2,002,250
1/1/07 Bal b/f	2,002,250	31/12/07 bal c/d	3,187,010
Bank	944,510		
Sinking fund	240,250		
	3,187,010		3,187,010
1/1/08 Bal b/f	3,187,010	31/12/08 Bal c/d	4,513,970
Bank	944,510		
Sinking fund	382,450		
	4,513,970		4,513,970
1/1/09 Bal b/f	4,513,970	31/12/09 Disposal	6,000,000
Bank	944,510		
Sinking fund	541,520		
	6,000,000		6,000,000

c. **Sinking Fund Investment Disposal Account**

31/12/09 Sinking Fund Investment	6,000,000	31/12/09 Bank	5,750,000
		Sinking Fund (loss on disposal)	250,000
	6,000,000		6,000,000

1. **WORKINGS**

Using the sinking fund formula to calculate the amount to set aside annually.

$$S = A\left[\frac{(1+r)^{n}-1}{r}\right]$$

$$= 6{,}000{,}000 \quad \left[\frac{(1+0.12)^{5}-1}{0.12}\right]$$

$$6{,}000{,}000 = A \left[\frac{(1-12)^5-1}{0.12}\right]$$

$$6{,}000{,}000 \times 0.12 \quad \left[A(1-12)^5 -1\right]$$

$$720{,}000 = 0.7623A$$

$$720{,}000 / 0.7623 = A$$

₦944,510

SOLUTION 5

a. Job description / Duties of a Systems Manager

(i) Making input into the formulation of information system policies, plans and strategies.

(ii) Liaising with executive management to ensure that its policies, plans and strategies are in conformity with organizational goals and objectives.

(iii) Supervising the heads of systems and operations units of the information system department.

(iv) Coordinating / organizing training programmes for user departments and other stakeholders.

(v) Managing outsourced services.

(vi) Advising in the employment of qualified and capable human resources.

(vii) Ensuring optimal and economic utilization of information system resources.

(viii) Overseeing the activities of functional modules of the computerized accounting system such as general ledger, accounts payable, inventory management, accounts receivable, etc

(ix) Liaising with internal audit or information systems audit department for effective audit process.

(x) Overseeing the security and safety of data and other system resources.

(xi) Advising or making appropriate recommendations on hardware and software acquisition and development.

b. Disclosures in notes to financial statements in accordance with SAS 25

i. A breakdown of revenue and cost of sales by significant category (including those on co-location arrangements);

ii. The amount of any levy charged to income statement in respect of telecommunication activities by significant category;

iii. Any impairment loss recognized in the period;

iv. The number of active subscribers at the end of the period and a reconciliation of movements in subscriber number from the previous year;

v. Specific details of how active subscribers are calculated, clearly stating when a subscriber becomes non – active;

vi. A reconciliation of the carrying amount of interconnection revenue and costs showing receivables and payables; and

vii. The different categories of telecommunication licenses indicating the dates of issues and expirations.

SOLUTION 6

a. **i) Percentage of completion method**

It is a method which apportions profit to each accounting period on the basis of proportion of the contract executed during the period.

ii) Completed Contract method

Under this method, profit is recognized on a contract only when it is completed.

iii) Deferred Costs

These are costs that relate to aspects of a contract which are not immediately certifiable.

iv) Under billings

Occur when the rates used for progress billings payments are lower than those used for revenue recognition.

v) **Over billing**

It is a situation where the rates used for progress billings payments are higher than those used for revenue recognition.

b. (i) Contract No. 1001 account for the year ended 30/6/2009

	₦		₦
Costs as at 30/6/2009:			
Bricklayer wages	273,000,000	Cement & gravels c/d	9,000,000
Cement & gravels	108,000,000	Equipment c/d	7,800,000
Other overheads	54,000,000	Work certified	540,000,000
Equipment	27,000,000	W.I.P. c/d	57,000,000
Head office costs	18,000,000		
	480,000,000		
Profit for the year (Wii)	114,750,000		
Deferred Profit c/d	19,050,000		
	613,800,000		613,800,000
Cement & gravels b/d	9,000,000	Deferred profit b/d	19,050,000
Equipment b/d	7,800,000		
W.I.P. b/d	57,000,000		

(ii) **Contractee A/c**

	₦		₦
30/6/2009 Work certified	540,000,000	30/6/2009 Cash	450,000,000
		Balance c/d	90,000,000
	540,000,000		540,000,000
Balance b/d	90,000,000		

(iii) **Balance Sheet Extracts as at 30/06/2009.**

Fixed assets:		
Equipment cost		27,000,000
Depreciation		(19,200,000)
Net book value		7,800,000
Currents assets:		
Cement & gravels	9,000,000	
W.I.P (₦57m – ₦19.050m)	37,950,000	
Contracts balance (debtors)	90,000,000	136,950,000
		144,750,000

Financed by:	
Profit & loss account	114,750,000
Capital (Balancing Figure)	30,000,000
	144,750,000

Workings:

i. Calculation of Profits	₦
Contract Price	720,000,000
Cost to date [₦480m- ₦9m- ₦7.8m]	(463,200,000)
Future Cost:	
(₦30m + ₦36m + ₦24m + ₦9m + ₦4.8m)	(103,800,000)
	153,000,000

ii. To find out whether the contract has been significantly completed:

$$\frac{\text{Value of work certified}}{\text{Contract Price}} \times 100$$

$$= \frac{540{,}000{,}000}{720{,}000{,}000} \times 100 = 75\% \text{ completed}$$

The contract is significantly completed, therefore profit is:

75% x ₦153,000 ,000

= ₦114,750,000

3. Future equipment cost =(₦7,800,000 – ₦3,000,000)

= ₦4,800,000

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
FINANCIAL ACCOUNTING

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. Which of the following is **NOT** a member of the Nigerian Accounting Standards Board (NASB)?
   A. Central Bank
   B. Corporate Affairs Commission
   C. Office of the Auditor General for Local Governments
   D. Nigeria Accounting Teachers Association
   E. Office of the Auditor General for the Federation.

2. Which one of the following is **NOT** a feature of financial statements prepared on "break up" basis?
   A. Assets are shown at their realizable values
   B. A deficiency or surplus account is prepared
   C. Owners equity, working capital and capital employed are not disclosed
   D. Order of settlement of claims are strictly followed
   E. Liabilities are classified as current or longterm.

3. Authoritative statements issued by a Board or Committee to guide accountants in the preparation of financial statements in order to narrow the areas of differences and variation in accounting practices is called
   A. Accounting Policies
   B. Accounting Bases
   C. Prudential Guidelines
   D. Accounting Standards
   E. Book keeping and Accounting.

4. Historical cost is the most commonly used method of valuation of assets. Which of the following is **NOT** a method of asset valuation?
   A. Real cost
   B. Replacement cost
   C. Net realizable value
   D. Adjusted historical cost
   E. Deprival value.

Use the following information to answer questions 5 and 6.

The analysis of the loans and advances of a commercial bank by performance as at June 30, 2009 revealed the following:

	₦ '000
Performing loans and advances	250,000
Non-performing loans and advances:	
Substandard	106,000
Doubtful	80,400
Lost	52,600
	489,000

5. Calculate the total provisions for doubtful accounts to be made in respect of the non-performing loans and advances
   A. ₦ 23,900,000
   B. ₦ 103,400,000
   C. ₦ 239,000,000
   D. ₦ 118,500,000
   E. ₦ 145,800,000.

6. Determine the total provisions for doubtful accounts for the year ended June 30, 2009.
   A. ₦489,000,000
   B. ₦244,500,000
   C. ₦143,400,000
   D. ₦ 48,900,000
   E. ₦105,900,000.

7. Which of these ratios is referred to as the primary ratio?
   A. Stock turnover
   B. Gross profit margin
   C. Return on capital employed
   D. Earnings per share
   E. Return on shareholders' fund.

8. The creditors of a company undergoing liquidation in 2008 consist of the following:

	₦
Income tax assessment (2007: ₦ 6,000; 2008: ₦ 8,000)	14,000
PAYE tax deductions (2007: ₦ 15,000; 2008: ₦ 10,000)	25,000
17 months local rates	42,500
Loan for settlement of staff salary	60,000
NPF deductions (2007 and 2008)	16,600
Sundry creditors	91,900
	250,000

Calculate the amount of preferential creditors

A. ₦ 121,200
B. ₦ 129,600
C. ₦ 124,600
D. ₦ 116,200
E. ₦ 69,600.

9. Which of the following is **NOT** an expense incurred in a voyage?
   A. Captains portage bill
   B. Address commission
   C. Stevedoring
   D. Shipping expenses
   E. Wharfages.

10. In the translation of the trial balance of a foreign branch, the head office account balance is translated or converted at
   A. actual rate
   B. closing rate
   C. average rate
   D. spot rate
   E. agreed rate.

11. In the context of SAS 25 on telecommunication activities, a set of different products provided together as if they were a single product is referred to as
   A. doubled product
   B. joint product
   C. bundled product
   D. by-product
   E. co-location product.

12. According to the Insurance Act 2007, a life insurance company is required to have a minimum paid up capital of
   A. ₦ 10 billion
   B. ₦ 2 billion
   C. ₦ 3 billion
   D. ₦ 4 billion
   E. ₦ 5 billion.

13. The following are contained in the directors' report in a published account **EXCEPT**:
   A. principal activities of the company
   B. directors' interest in share capital
   C. profits and dividends for the year

D. list of subsidiary companies
E. re-appointment of auditors.

14. Any person who transacts banking business without a valid license is guilty of an offence under Banks and other Financial Institutions (BOFIA) Act Cap B3 LFN 2004 and is liable on conviction to imprisonment for
A. 25 years
B. 15 years
C. 10 years
D. 20 years
E. 5 years.

Use the following information to answer questions 15 and 16

Favour Plc owns 70% of the issued ordinary shares and 30% of the issued preference shares in Napas Ltd. An extract from the profit and loss accounts of Napas Ltd. for the year ended December 31, 2006 showed:

	₦ '000
Profit after tax	72,600
Less Dividend: preference	(20,000)
Ordinary	(30,000)
	22,600

15. Calculate the non-controlling interest that will appear in consolidated profit and loss account of Favour Plc group.
A. ₦ 8,000,000
B. ₦ 6,780,000
C. ₦ 22,600,000
D. ₦ 35,780,000
E. ₦ 29,780,000.

16. Assume that in the above information, Favour Plc owns only 80% interest in the ordinary shares of Napas Ltd. and that the profit after tax for that year was ₦ 80,600,000.

Calculate the non-controlling interest
A. ₦ 19,650,000
B. ₦ 12,120,000
C. ₦ 24,650,000
D. ₦ 32,120,000
E. ₦ 6,120,000.

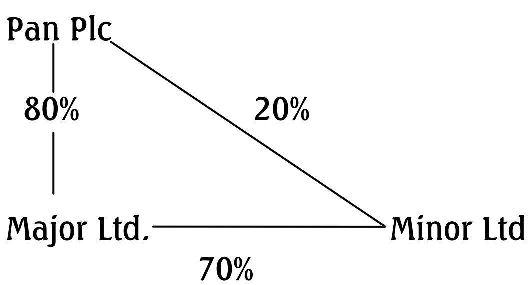
17. Balance sheet extract as at September 30, 2009:

	Road Plc	Street Plc	Lane Plc
	₦ '000	₦ '000	₦ '000
Ordinary shares of ₦ 1 each	400,000	-	-
Ordinary shares of 50kobo each	-	60,000	20,000

Road Plc acquired 40 million shares of Street Plc and 16 million shares of Lane Plc.

In relation to Road Plc group, Lane Plc is _______

A. a subsidiary
B. a fellow subsidiary
C. an associate
D. a non–controlling interest
E. a sub-subsidiary.

18. 

Calculate the interest of Pan Plc in Minor Ltd for consolidation purpose.

A. 80%
B. 76%
C. 20%
D. 90%
E. 95%.

19. Which of the following is **NOT** an attribute of Information Technology?

A. It can help one to work smarter
B. It allows one to work away from ones office
C. It allows one to rely on technical specifications
D. It keeps one informed even on the move
E. It can get one closer to the customer.

20. Using computer or network resources to illegally obtain information is known as

A. piracy
B. cyber theft
C. computer crime
D. yahoo robbery
E. hacking.

PART II SHORT-ANSWER QUESTIONS

1. A method or basis, out of several alternative methods, adopted by an organization in the preparation and presentation of its financial statement is referred to as------------

2. Where a company can no longer operate as a going concern, the financial statements should be prepared on________basis.

3. The end result of accounting processes is the financial statements. State one objective of financial statements.

4. State **TWO** possible basic assumptions underlying the calculation of pre-acquisition reserve under piece-meal acquisition of a subsidiary.

5. Banks are required to make mandatory transfers to Small and Medium Scale Industries Equities Investment Scheme Reserves. What is the current rate of the transfer?

6. In financial analysis, ratio is used as a bench mark for evaluating the financial position and performance of a company. State two types of financial analysis.

7. The acquisition of interest by parent in a subsidiary, sub-subsidiary and associate is known as -----------group.

8. State **TWO** methods of recognizing profits in a long-term construction contract.

9. State **ONE** demerit of using full cost method in oil and gas accounting.

10. In the books of a hire purchaser, the full amount of the finance charge was recorded at the commencement of the hire purchase transaction. Show the accounting entry.

11. In determining business segments, state one factor which the reporting entity must consider.

12. State one argument against the establishment of accounting standards.

13. The interest and other costs incurred by an entity in respect of loans are called----------cost.

14. The liquidator of a company has repaid all the company's creditors except those owed ₦50,000 and the company's share capital at the commencement of the liquidation is as follows:

	₦
300,000 ordinary shares of ₦ 1 each, fully paid	300,000
200,000 ordinary shares of ₦ 1 each 50k paid up	100,000
	400,000

The loss per share is 90 kobo.
Calculate the amount of call the liquidator will make.

Use the following information to answer questions 15 and 16.
Jimmy Plc acquired 90% of the share capital of Roy Plc on December 31, 2005. On April 30, 2008,Jimmy Plc disposed one third of its holding and the profit to the group was ₦68,000,000. The profit and loss accounts extract of the companies for the year ended December 31, 2008 were:

	Jimmy Plc	Roy Plc
	₦'000	₦ '000
Profit before tax	926,500	698,400
Taxation	(304,500)	(248,400)
Profit after tax	622,000	450,000

No adjustments have been made in respect of shares sold.

15. Calculate the non-controlling interests for the year ended December 31, 2008.

16. Determine the profit attributable to the group for the year ended December 31, 2008.

17. Ogbonye Ltd. had issued 50% of its authorized share capital of ₦ 1million (consisting of ₦1.00 kobo shares) by December 31, 2007. Panko Plc made the following share acquisitions on the relevant dates:

Date	Number/Percentage acquired	Reserve Balance
		₦
2004	40% interest	150,000
2007	250,000 shares	380,000

Calculate the pre-acquisition reserve if Panko Plc had intentions to gain control since 2004.

18. A parent company purchased machinery for ₦2,000,000 and transferred it to its subsidiary at cost plus 25%. It is the group policy to depreciate its plant and machinery at 15% per annum. Determine the amount of the excess depreciation to be adjusted for during consolidation.

19. State one Exception Report that the Purchase/Inventory Ledger Package is likely to produce.

20. The check that is performed within a computer system to ensure the accuracy of arithmetical operations is known as __________

SECTION B

QUESTION 1- CASE STUDY

Otunba Beko has been operating as a sole trader for many years. He believes that his business operations have been very efficient based on the available cash in hand and at bank. His only assistance in the business is his nephew, Taiwo, a senior secondary certificate holder. Taiwo is responsible for recording the business transactions and making lodgements and withdrawals from the bank.

Otunba Beko's last son, Ayo, who recently graduated in Business Administration from Kings Polytechnic was directed by his father to join him in running the business from January, 2009. In preparation for the arrival of Ayo, Taiwo prepared his accounting entries for the year ended December 31, 2008. The records revealed the following:

	Jan1, 2008	Dec 31. 2008
<u>Assets:</u>	₦'000	₦'000
Motor vehicles at valuation	12,650	12,650
Furniture and fittings at valuation	8,770	8,770
Stocks	36,440	42,300
Debtors	29,180	37,250
Cash in hand	1,960	2,410
Cash at Bank	16,550	15,120
<u>Liabilities:</u>		
Creditors	38,400	30,640
Accrued rent	-	5,310

Other Information are:

(a) Otunba Beko's weekly drawings were cash ₦10,000 and goods ₦20,000.

(b) Depreciation provision for the year which were not yet reflected in the fixed assets balances were:

Motor vehicles	₦1,265,000
Furniture	₦ 877,000

(c) Provision of 5% is to be made for doubtful debts.

Ayo on assumption of duty examined the financial records available as at December 31, 2008 and was angry that the bank balance at the end of the year was smaller than that at the beginning of the year. He quickly demanded for the cash book and the bank statements for the year. Mr. Taiwo presented the following accounts and statement to him:

Cash Book (Bank Column)

2008		₦'000	2008		₦'000
Jan 1	Bal b/f	16,550	Mar 10	Ebuka C	8,600
Jan 4	Abiola C	7,300	Jun 15	Aminu A	7,400
Feb 20	Uche G	6,900	Aug 30	Gbenga B	9,700
July 31	Cash	10,070	Oct 20	Oluwa S	8,000
Dec 27	Musa	5,000	Dec 31	Balance c/d	12,120
		45,820			45,820
	Balance b/d	12,120			

Bank Statement

Date		Debit	Credit	Balance
2008		₦'000	₦'000	₦'000
Jan 1	Balance b/d			16,550
Jan 6	Abiola C		7,300	23,850
Feb 20	Uche G		6,900	30,750
Mar 14	Ebuka	8,600		22,150
Mar 30	Standing order	1,000		21,150
Apr 1	Bank charges	640		20,510
July 31	By cash	10,070		30,580
Aug 12	Aminu A	7,400		23,180
Aug 15	P. Nweke(Customer)		3,540	26,720
Sept 30	Bank charges	960		25,760
Oct 22	Oluwa S	8,000		17,760

Ayo with full concentration went through the accounts and statement thoroughly and visibly confused, he told the father that the best thing he (his father) should do is to enter into partnership with another sole trader in a different line of business. Ayo however advised his father to engage a consultant for a final appraisal before going into the partnership.

A first class consultancy group – Wizard Associates was engaged for a comprehensive appraisal of Otunba Beko's business up to year ended December 31, 2008. Wizard Associates submitted their findings in a report to Otunba Beko on February 14, 2009, which recommended that the business be converted to a private limited liability company – Otunba Beko and Sons Nigeria Ltd. The new company commenced business on April 1, 2009. The half-year results for the period ended September 30, 2009 are shown below:

Profit and Loss Account (Extract)

	₦'000
Profit before taxation	59,920
Taxation	(20,960)
Profit after tax	38,960
Dividend – Ordinary	(25,410)
Retained for the year	13,550

Balance Sheet (Extract)

	₦'000
Ordinary shares of ₦1 each 80 kobo paid up	40,000
Profit and Loss account	28,400
	68,400
6% Convertible Debenture stock	10,000
	78,400

The conversion rate for the debenture stock is ₦100 debenture for one ordinary share of ₦1.

Required:

(a) Calculate the net profit of Otunba Beko's business for the year ended December 31, 2008. (5 Marks)

(b) Prepare the bank reconciliation statement starting with the adjusted cash book balance. (2 Marks)

(c) If Otunba Beko had accepted Ayo's advice to go into partnership, state **FIVE** issues or areas covered in a well-drawn partnership agreement. (5 Marks)

(d) From the statement of affairs and results of Otunba Beko and Sons Nigeria Ltd assume the current market price per share to be ₦20.15.

(i) Basic Earning per share.
(ii) Diluted or Adjusted Earnings per share.
(iii) P/E ratio. (3 Marks)

(Total 15 Marks)

QUESTION 2

Nnamdi Nigeria Plc is a general merchandize company with an authorized share capital of ₦15,000,000 made up of ordinary shares of 50 kobo each. On December 31, 2007, the following balances were extracted from the books:

	₦
Motor vehicles at cost	1,065,000
Plant and machinery at cost	5,440,000
Sundry creditors	3,240,000
Balance in hand and at bank	8,921,000
Stock on hand January 1, 2007	1,064,000

Provision for depreciation to January 1, 2007:

	₦
Leasehold land and building	3,275,000
Motor vehicles	642,000
Plant and machinery	3,029,000

Provision for doubtful debts January 1, 2007	103,000
Cash in hand	768,400
Sales	28,052,000
Purchases	18,253,000
Overhead expenses	1,945,600
Selling expenses	1,642,800
Administrative expenses	2,239,200
Leasehold land and building at cost	6,550,000
Plant replacement reserve	3,600,000
Deferred tax	1,000,000
8% Debentures (2012 – 2014)	3,000,000
Interim dividend paid on June 30, 2007	281,600
Debenture interest paid	120,000
Trade debtors	5,675,000
Taxation account	700,000
Profit and loss account January 1, 2007	2,924,600
Ordinary shares of 50 kobo each, fully paid	5,000,000

Additional information:

(a) Stock on hand on December 31, 2007 amounted to ₦ 1,145,000.

(b) Administrative expenses include:

Chairman and managing director's salary	₦1,000,000
Sales director's salary	₦ 600,000
Chairman's benefit in kind	₦45,900

(c) Provision for doubtful debts is to be adjusted to 2% of the outstanding trade debtors.

(d) Provision is to be made for:
audit fees fixed by directors ₦31,500

depreciation on leasehold land and building at 5% on cost, plant and machinery at 12½% on cost, and motor vehicles at 20% on cost.
Non – executive director's fees (at ₦ 50,000 per director) ₦100,000
Debenture interest ₦120,000

(e) The balance on taxation account represents the provision made on December 31, 2006 for company tax and not yet paid.

Company income tax for the year ended December 31, 2007 on 30% rate is estimated at ₦760,000. Capital Gains tax is ₦645,600.

(f) The directors wish to transfer to plant replacement reserve ₦500,000 and recommend a dividend of 7 kobo per share.

(g) During the year the following purchases were made:

Motor vehicle	₦ 349,100
Plant	₦1,226,000

(h) The balance on deferred tax account represents the amount set aside on account of accelerated capital allowances.

Required:
Prepare the profit and loss account of Nnamdi Plc for the year ended December 31, 2007 and a balance sheet as at that date for inclusion in the annual report to members. **(Total 15 Marks)**

QUESTION 3

The draft financial statements of TAMUNO Plc and its subsidiary Ghandi Ltd are set out below:

Balance sheet as at December 31, 2008

	Tamuno Plc	Ghandi Ltd.
Assets:	₦'000	Rupee '000
Land and Building	15,600	39,600
Motor vehicles	5,800	12,410
Investment – shares in Ghandi Ltd	1,600	-
Stock	9,860	86,280
Debtors	7,440	51,460
Cash	1,220	20,530
	41,520	210,280

Financed by:	₦'000	Rupee '000
Share capital	6,690	18,520
Profit and loss account	2,014	143,400
Creditors	22,740	48,360
Bank overdraft	10,076	-
	41,520	210,280

Profit and loss account for the year ended December 31, 2008

	₦ '000	Rupee'000
Turnover	50,600	899,460
Cost of sales	(36,300)	(689,760)
Gross profit	14,300	209,700
Admin and selling expenses	(9,700)	(68,890)
Dividend received from Ghandi Ltd	640	-
Profit before taxation	5,240	140,810
Taxation	(2,650)	(45,650)
Profit after taxation	2,590	95,160
Dividends	(1,608)	(39,220)
Retained for the year	982	55,940

Additional information (₦'000):

(a) Tamuno Plc acquired 75% of the shares of Ghandi Ltd for ₦1,600 on December 31, 2006 when the profit and loss account balance of Ghandi Ltd. was 31,780 rupee.

(b) Ghandi Ltd. paid an interim dividend of 19,050 rupee and proposed a final dividend of 20,170 rupee Tamuno Plc is yet to accrue for the dividend receivable.

(c) Any goodwill on consolidation is to be amortized over three years.

(d) Exchange rates (Rupee to one Naira)
December 31,2006 25
December 31, 2007 24
December 31,2008 22
Average for year 2008 23

Required:

(i) Show the translated balance sheet and profit and loss account of Ghandi Ltd. (8 Marks)

(ii) Prepare the consolidated balance sheet of Tamuno Plc group. (7 Marks)

(Total 15 Marks)

QUESTION 4

Alhaji Sambo carries on retail business in Kano and has two other branches in Kaduna and Zaria.

All accounting records are maintained at the head office. Purchases of goods for resale are made by the head office and are sent to the branches at cost price plus 50% which is the selling price. The branches are required to make daily banking of all cash sales and receipts from debtors while all payments are made by the head office. The branches are permitted to sell on credit and are required to make weekly returns to the head office.

Extracts from the head office records and weekly branch returns for the year ended December 31, 2007 revealed the following:

	Head office Branch	Kaduna Branch	Zaria Branch
	₦	₦	₦
Capital account	429,228	-	-
Credit Sales	76,500	56,946	35,040
Purchases	428,460	-	-
Cash received from debtors and paid to bank	93,540	45,000	52,920
Stocks at Dec. 31, 2007	75,174	-	-
Stocks at invoiced price at Jan. 1, 2007	-	40,500	50,400
Cash sales paid into the bank	201,444	176,880	148,356
Stocks at Jan 1, 2007	112,740	-	-
Bank balance at Jan.1, 2007	104,892	-	-
Trade creditors –Dec. 31, 2007	145,182	-	-
Goods sent to branches at invoice prices	-	324,000	216,000
Allowances off selling prices	-	3,600	2,700
Salaries and wages	25,614	-	-
Discount received	10,164	-	-
Drawings account –Jan. 1, 2007	74,940	-	-
Discount allowed	-	1,740	3,684
Goods returned to head office at Invoice Price	-	13,500	8,100
Goods pilfered at invoice price	-	4,860	-
General expenses	4,548	-	-
Carriage outwards	22,488	-	-
Cash takings stolen (not insured)	-	-	8,400

Debtors –Jan.1, 2007	41,688	34,506	37,626
Provision for doubtful debts	7,686	-	2,154
Trade creditors –January 1, 2007	195,504	-	-

Additional Information:

(a) Goods to the value of ₦11,052 at invoiced prices sold by Kaduna branch was returned direct to the head office by the customer.

(b) On December 29, 2007, goods to the value of ₦57,618 and ₦28,926 at invoiced prices were dispatched to Kaduna and Zaria branches respectively by the head office. All the goods sent to Kaduna branch were still in transit by year end while only goods worth ₦23,436 were received in Zaria branch on Jan.3, 2008 and the difference deemed to have been lost in transit. Those goods were not insured and so the head office decided that the loss be written off in 2007 accounts.

(c) The stock count conducted on December 31, 2007 disclosed the following discrepancies:

Kaduna branch deficiency	₦5,760
Zaria branch surplus	₦3,546

Required:

Prepare from the above particulars:

(a) Branch stock account (3 Marks)
(b) Branch debtors account (2 Marks)
(c) Branch Stock Adjustment account (4 Marks)
(d) General Cash/Bank Account (3 Marks)
(e) Goods sent to Branch account. (3 Marks)

(Total 15 Marks)

QUESTION 5

(a) Section 35, of Companies and Allied Matters Act (CAMA), CAP C20 LFN 2004 prescribes the procedures for registering a company's Memorandum and Articles of Association. Similarly Section 36 of the same Act permits Corporate Affairs Commission (CAC) to decline registration of companies. You are required to state the circumstances under which CAC may decline registration of Memorandum and Articles of Association of a Company in Nigeria. (5 Marks)

(b) You have written a memo to the Managing Director of Sweet Bakery Nigeria Limited on the need to computerize the operations of the company. You are required to state ten basic characteristics of computer information that can aid decision making in a company. (10 Marks)

(Total 15 Marks)

QUESTION 6

(a) Companies are required to record the substance of transactions rather than their legal form in complex situations where the legal form of transactions are different from their substance.

Required:
Explain with examples why it is important to record the substance rather than the legal form of the transactions. (4 Marks)

(b) Explain the following computer terminologies:
(i) The menu bar
(ii) Toolbar buttons
(iii) Windows
(iv) Title bar
(v) Command buttons
(vi) Edit menu (6 Marks)

(c) In recent years there has been demand by shareholders and companies in Nigeria to reduce the size of annual reports and financial statements. This should rather be done in line with SAS 20 on abridged financial statements.

- State any **TWO** items to be disclosed in abridged financial statements.
- Highlight three objectives of abridged financial statements. (5 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

PART 1 – MULTIPLE CHOICE QUESTIONS

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

<u>TUTORIALS</u>

5. ₦103,400 i.e (10%.106,000+50%.80,400+100% 52,600)
6. ₦105,900 i.e (1%. 250,000 + ₦103,400).
8. ₦129,600 i.e (Income Tax) 8000 + (PAYE) 15,000 + (Rates 12 months) 30,000+ (Loans) 60,000+(NPF) 16,600)

15. ₦29,780,000 i.e $\left(\frac{30}{100} \times ₦52{,}600 + \frac{70}{100} \times 20{,}000\right)$

16. ₦32,120,000 i.e. (20 x 60,600+20,000)

18. (80% x 70% x 20%) = <u>76%</u>

PART II – SHORT ANSWER QUESTIONS

1. Accounting policy

2. Break up or winding up

3. (a) To provide data / information for economic decision making.
   (b) To serve as report to owners on the stewardship of management
   (c) To act as language for communicating business activities.
   (d) To disclose other information which may be of relevance to users of the statement

4. (a) Intention to gain control
   (b) No intention to gain control

5. 5% of Profit after tax

6. (a) Time series analysis
   (b) Cross sectional analysis
   (c) Industry analysis
   (d) Pro-forma analysis

7. Mixed

8. (a) Completed contract method
   (b) Percentage of completion method

9. (a) It reports assets on the basis, which may not be recoverable
   (b) It contravenes the prudence concept because foreseeable losses are defined.

10. Debit – Hire Purchase Interest Suspense Account
    Credit – Hire Purchase Vendor's Account

11. (a) Existing Profit/Capital
    (b) Nature of product /services
    (c) Market/marketing methods

12. (a) They inhibit initiative as the decision has already been made for the financial accountant.
    (b) Standards by their very nature, rarely take account of the peculiarities of an individual business.

(c) the standard setting process itself has also been flawed since the interested parties comment on the exposure draft are seen as watering down the original intention of the standard setter.

13. Borrowing

14. ₦80,000 i.e 40k x 200,000 ordinary shares

15. Non controlling interest = (10% x 4/12 x ₦450m) + (40% x 8/12 x ₦450m) = ₦135 million

16. Profits attributable to the group = (₦ 1,072m + 68m) - ₦135m = ₦1,005m or ₦1.005 billion

17. Pre-acquisition reserve (40% x ₦ 150,000 + 25% x ₦ 380,000) = ₦155,000

18. Excess Depreciation = ₦75,000 (₦2m x25% x15%)

19. Exception Reports:

    (a) Obsolete stocks report
    (b) Suppliers debit balance
    (c) Stocks with credit balance
    (d) High value items report
    (e) Stock out reports
    (f) Overdue creditors report

20. Parity check

SOLUTIONS TO SECTION B

SOLUTION I

(a) Determination of net profit

Calculation of Net Asset:	Jan.1, 2008	Dec.31, 2009
Assets:	₦'000	₦'000
Motor vehicles	12,650	12,650
Furniture and fitting	8,770	8,770
Stocks	36,440	42,300
Debtors	29,180	37,250
Cash in hand	1,960	2,410
Cash at bank	16,550	15,120
	105,550	118,500
Liabilities:		
Creditors	(38,400)	(30,640)
Accrued rent		(5,310)
Net Asset	67,150	82,550

		₦	
	Net Profit:		
	Closing Net asset at 31/12/08		82,550
	Add drawings:		
	Cash (₦10,000 x 52 weeks)		520
	Stock (₦20,000 x 52 weeks)		1,040
			84,110
Less:	Opening Net Asset	67,150	
	Depreciation	2,142	
	Provision for bad Debts	1,863	(71,155)
Net Profit:			12,955

(b) Adjusted Cash Book

	₦'000		₦'000
Balanced b/d	12,120	Standing order	1,000
P. Nweke – Transfer	3,540	Bank charges	1,600
		Balance	13,060
	15,660		15,660
Balance b/d	13,060		

Bank Reconciliation Statement

	₦'000
Adjusted Cashbook balance	13,060
Add back:	
Unpresented cheque – Gbenga B	9,700
	22,760
Less: Uncredited cheque – Musa	(5,000)
Balance as per bank statement	₦17,760

(c) Partnership Agreement:

(i) The amount of capital to be contributed by each partner.
(ii) The profit and loss sharing ratio.
(iii) Whether capital account will be fixed or fluctuating
(iv) Whether current account will be maintained and the treatment of partners' drawings.
(v) Whether interest on capital will be charged and the rate of interest
(vi) Whether there will be limitation on the amount at drawing each partner can make.
(vii) Whether partners are entitled to salaries and/or commissions.
(viii) The conditions for admitting new partners.
(ix) The method of valuing goodwill on admission of new partner.
(x) How the firms account are to be kept.
(xi) Method of determining the amount due to a deceased or retiring partner.
(xii) Circumstances under which the partnership would be dissolved.
(xiii) The rights and duties of each partner.

(d) (i) Basic Earning Per Share (EPS)

$$EPS = \frac{\text{Profit After Tax}}{\text{No of ord.shares issued}} \times \frac{100}{1}$$

$$= \frac{₦38,960,000}{50,000,000 \text{ shares}} \times 100 = \underline{77.9\text{kobo}}$$

(ii) Diluted Earnings Per Share

$$\text{Conversion of Debenture} = \frac{10,000,000}{100}$$

$$= 100,000 \text{ shares}$$

$$EPS = \frac{₦38,960,000 + \text{Interest N}600,000}{50,100,000 \text{ shares}}$$

$$= \frac{₦39,560,000}{50,100,000} = \underline{78.96\text{kobo}}$$

(iii) P/E ratio = $\frac{\text{Market price per share}}{\text{EPS}}$

= $\frac{₦20.15}{₦0.779}$ = 25.9:1

= 26:1

SOLUTION 2

Nnamdi Plc

Profit and Loss Account for the year ended Dec 31,2007

	Notes	₦	₦
Sales		28,052,000	
Less Cost of sales			
	(1)	(18,172,000)	
Gross profit			9,880,000
Less expenses:			
Selling and distribution	(2)	2,253,300	
Administrative	(3)	4,936,800	
Interest expenses and similar charges	(4)	240,000	(7,430,100)
Profit on ordinary activities before tax			2,449,900
Taxation			(760,000)
Profit on ordinary activities after tax			1,689,900
Dividends	(5)	281,600	
Plant replacement reserve		500,000	(781,600)
Retained profit for the year			908,300
Earnings per share			16.90 kobo
Dividend per share			9.82 kobo

Nnamdi Plc

Balance Sheet as at 31 December 2007

	Notes		₦
Fixed Assets	(6)		4,888,500
Current Assets:			
Stocks		1,145,000	
Trade debtors	(7)	5,561,500	
Cash and bank	(8)	9,689,400	
		16,395,900	

Current Liabilities			
Creditors	(9)	3,491,500	
Taxation	(10)	1,460,000	
		(4,951,500)	11,444,400
			16,332,900

Capital and Revenue	Authorized	
	₦	₦
Ordinary share capital of 50 kobo each	15,000,000	5,000,000
Reserve for plant replacement		3,500,000
Retained profit		3,832,900
Shareholders' fund		12,332,900
Long-term liabilities		
8% Debenture stock 2012 – 2014		3,000,000
Deferred Tax		1,000,000
		16,332,900

Notes to the Accounts:

1. Cost of sales:

	₦
Stock at 1/1/2007	1,064,000
Purchases	18,253,000
Stock at 31/12/2007	(1,145,000)
	18,172,000

2. Selling and Distribution Expenses

Selling expenses	1,642,800
Sales Directors' salary	600,000
Provision for doubtful debts (113,500 – 103,000)	10,500
	2,253,300

3. Administrative Expenses:

	₦	₦
Chairman – Salary	1,000,000	
Benefits-in-kind	45,900	1,045,900
Other admin expenses (₦ 2,239,200 – 600,000 – 1,045,900)		593,300
Directors' fees (non - executive)		100,000
Overhead		1,945,600
Audit fees		31,500
Depreciation for the year: Leasehold	327,500	
Motor vehicles	213,000	
Plant and machinery	680,000	1,220,500
		4,936,800

4. Interest expenses and similar charges:

Debenture interest - paid	120,000
accrued	120,000
	240,000

5. Dividends:

Interim paid	281,600

The directors proposed a final dividend of ₦700,000. This will be paid after the approval at the AGM.

6. Fixed Assets:

Cost:	Leasehold land and building	Motor vehicle	Plant and machinery	Total
	₦	₦	₦	₦
Cost at 1/1/2007	6,550,000	715,900	4,214,000	11,479,900
Additions in the year	-	349,100	1,226,000	1,575,100
Disposal	-	-	-	-
Cost at 31/12/2007	6,550,000	1,065,000	5,440,000	13,055,000
Accummulated Depreciation:				
At 1/1/2007	3,275,000	642,000	3,029,000	6,946,000
Depreciation for the year	327,500	213,000	680,000	1,220,500
Accum. Dep 31/12/07	3,602,500	855,000	3,709,000	8,166,500
Net book value	2,947,500	210,000	1,731,000	4,888,500

7. Trade Debtors:

	₦
Balance 31/12/2007	5,675,000
Less provision for doubtful debts at 2%	(113,500)
	5,561,500

8. Cash and Bank balances:

Balance in hand and at bank	8,921,000
Cash in hand	768,400
	9,689,400

9. Creditors

Sundry creditors	3,240,000
Accruals – Audit fee	31,500
Debenture interest	120,000
Directors fees	100,000
	3,491,500

10. Taxation

Provision 2006	700,000
Current provision 2007	760,000
	1,460,000

Workings

Depreciation for the year

i. Leasehold 5/100 x ₦ 6,550,000/1 = ₦327,500

ii. Motor vehicle 20/100 x ₦ 1,065,000/1 ₦213,000

iii. Plant & machinery 12½/100 x ₦5,440,000/1 ₦680,000

SOLUTION 3

(i) **Ghandi Ltd**

Translated Balance Sheet

Assets	Rupee'000	Rate	₦ '000
Land and building	39,600	22	1,800
Motor vehicle	12,410	22	564
Stock	86,280	22	3,922
Debtors	51,460	22	2,339
Cash	20,530	22	933
	210,280		9,558
Less			
Creditors	(48,360)	22	(2,198)
	161,920		7,360
Financed By:	Rupee '000		₦ '000
Share capital	18,520	22	842
Profit and loss account	143,400	22	6,518
	161,920		7,360

Ghandi Limited
Translated Profit and Loss Account

Turnover	Rupee'000	Rate	₦'000
Cost of sales	899,460	23	39,107
Gross profit	(689,760)	23	(29,990)
Admin. And selling expenses	209,700	23	9,117
Profit before taxation	(68,890)	23	(2,995)
Taxation	140,810		6,122
Profit after tax	(45,650)		(1,985)
	95,160		4,137
Dividend – Interim	(19,050)	Actual	(853)
Proposed	(20,170)	22	(917)
Retained for the year	55,940		2,367

(ii) **Tamuno Plc Group**
Consolidated Balance Sheet as at December 31, 2008

Fixed Assets:	₦000	₦000
Land and building (15600 + 1800)		17,400
Motor vehicle (5800 + 564)		6,364
Goodwill on consolidation (W2)		70
Current Assets:		
Stock (9,860 + 3,922)	13,782	
Debtors (7,440 + 2,339)	9,779	
Cash (1,220 + 933)	2,153	
	25,714	
Current Liabilities:		
Creditors (22,740 + 2,198)	(24,938)	
Bank overdraft	(10,076)	(9,300)
		14,534
Financed By:		
Share capital		6,690
Profit and Loss a/c (W3)		6,004
		12,694
Non controlling interest (W5)		1,840
		14,534

Workings:

(a) Calculation of Translation Gain /Loss:

	Rupee '000
Cost of acquisition ₦1,600,000 in Rupee at 25	40,000
Cost of acquisition Rupee 40,000,000 to Naira at 22	1,818,000
Less	
Actual cost of acquisition	1,600,000
Translation Gain	218,000

(b) Computation of Goodwill:	Rupee '000	Rupee '000
Cost of acquisition		40,000
Less Net assets acquired:		
Share capital	18,520	
Pre acquisition reserve	31,780	
	50,300	
Group share of net assets at 75%		(37,725)
Goodwill in rupee		2,275
Goodwill in Naira (rupee 2,275,000 at 22)		103,409
Goodwill written off		(34,470)
		68,939

(c)	Profit and Loss:	₦'000
	Parent company profit and loss a/c	2,014
	Translation gain	218
	Subsidiary/spost acquisition profit (group share)	3,806
	Goodwill written off	(34)
		6,004

(d)	Subsidiary's post acquisition profit:	Rupee 000	Rate	₦'000
	Profit and loss per draft a/c	143,400		
	Pre-acquisition	(31,780)		
	Post acquisition	111,620	22	5,074
	Group share at 75% of ₦5,074			3,806

(e)	Non-controlling interest	
	25% of ₦7,360,000	1,840,000

SOLUTION 4

(i) Alhaji Sambo

Branch Stock Account

	Kaduna ₦	Zaria ₦		Kaduna ₦	Zaria ₦
Balance b/d	40,500	50,400	Credit sales	56,946	35,040
Goods from	324,000	216,000	Cash sales	176,880	148,356
Head Office	11,052		Allowances off selling prices	3,600	2,700
Branch debtors		3,546	Goods sent to branch (returned)	13,500	8,100
Stock surplus					
			Cash takings stolen goods	-	8,400
			sent to branch	11,052	
			Returns by(Debtors)	57,618	23,436
			Goods in transit	-	5,490
			Goods lost in transit	4,860	
			Goods pilfered	5,760	
			Stock difference	45,336	38,424
	375,552	269,946	Balance c/d	375,552	269,946
Balance b/d	45,336	38,424			

(ii) Branch Debtors Account

	Kaduna ₦	Zaria ₦		Kaduna ₦	Zairia ₦
Balance b/d	34,506	37,626	Discount allowed	1,740	3,684
Branch Stock (Sales)	56,946	35040	Branch stock (returns)	11,052	-
			Cash	45,000	52,920
			Balance c/d	33,660	16,062
	91,452	72,666		91,452	72,666
Balance b/d	33,660	16,062			

(iii) Branch stock Adjustment Account

	Kaduna ₦	Zaria ₦		Kaduna ₦	Zaria ₦
Allowances off selling price	3,600	2,700	Balance b/d (marketing)	13,500	16,800
Branch stock account (Marketing on return)	4,500	2,700	Branch stock account (markup on goods)	108,000	72,000
Branch stock account (Markup on goods stolen)	3,684				3,546
Branch stock account (Markup on goods in trust)	1,620				
Branch stock account (markup on goods in transit	19,208	7,812			
Branch stock account (goods lost in transit markup)	-	1,830			
Stock difference	5,760	-			
Branch profit and loss account	68,116	64,496			
Balance c/d	15,112	12,808			
	121,600	92,346		121,600	92,346
			Balance b/d	15,112	12,808

(iv) Cash and Bank Account

	₦	₦		₦
Balance b/d	104,892		Trade Creditors	468,618
Cash received from debtors:			Salaries and wages	25,614
Head Office	93,540		General expenses	4,548
Kaduna	45,000		Carriage outward	22,488
Zaria	52,920			
Cash Sales:			Balance c/d	301,764
Head Office		201,444		
Kaduna		176,880		
Zaria		148,356		
		823,032		823,032
Balance b/d		301,764		

(v) Goods Sent to Branch Account

	Kaduna ₦	Zaria ₦		Kaduna ₦	Zaria ₦
Branch stock A/c (Return)	9,000	5,400	Branch Stock A/c	216,000	144,000
Branch Stock Account (Returns by Debtors	7,368				
Head Office Trading A/c	199,632	138,600			
	216,000	144,000		216,000	144,000

SOLUTION 5

(a) The circumstances that can lead to the refusal of the CAC in registering a company's Memorandum and Articles of Association in Nigeria are;
- (i) If the Memorandum and Articles do not comply with the Act.
- (ii) If the business objectives of the company are illegal;
- (iii) If there is an incompetent or disqualified subscriber – (Section 20)
- (iv) If the company does not comply with requirements of any other law as to registration and incorporation of a company; and
- (v) If the company's name conflicts with or is likely to conflict with an existing trademark or business name registered in Nigeria.

(b) Characteristics of computer information
- (i) It should be brief.
- (ii) It should be sufficiently accurate for its purpose.
- (iii) It should be timely; that is, available when needed and communicated at appropriate time.
- (iv) It should be relevant for its purpose.
- (v) It should be complete for its purpose
- (vi) It should be clear to the user.
- (vii) The user should have confidence in it.
- (viii) It should be communicated to the right person.
- (ix) It should be communicated through the appropriate channel of communication.
- (x) It should be up-to-date and based on current data.
- (xi) It should be cost-effective, that is, the cost should be less that than the benefits to be derived. It should provide value for money.

SOLUTION 6

(a) The substance of a transaction is effectively its "commercial intention" as against its legal form. Companies are required to prepare the financial statements that represent the true and fair view of their performance.

In order to achieve these objectives, the substance of its transactions must be reported rather than its legal form. Generally, the legal form and the substance of a transaction are usually the same but there are few instances where they are different. In these instances, the risks and rewards of the transactions do not rest with the owners, as such control lies with the person that bears the risk and reward and hence the substance. Example is a lease financing. The substance of a finance lease is different from its legal form.

In situations where a transaction is linked with other related transactions, it is necessary to assess the substance of the series of connected transactions as a whole, for example, in instances where it is almost certain that in an option contract, the option would be exercised, the option should not be ignored in determining the substance of the transactions.

In a consignment of goods, it would be necessary to determine at what points in time the goods have been purchased and sold and should then be recognized. The seller retains the risks and regards until the goods are paid for but in instances where the consignee bears part of the risks determining the substance of the transaction might not be so easy.

We may consider the commercial substance of a transaction where assets are sold above or below their fair values.

Conclusion: Non-reporting of the substance of a transaction often lead to abuse and creative accounting which may consequently give room for 'window dressing' of the financial statements.

b) (i) **Menu Bar:** Assists users of computer to communicate with computer. It usually contains menu titles, file menu, edit menu, options, file, data and reports among others. Each menu item instructs computer to carry out its processing tasks.

(ii) **Toolbar Buttons**: Are icons, which represent a shortcut method of accessing common menu items. Tool tips appear automatically when the pointer is positioned on a toolbar button.

(iii) **Windows:** A rectangular area of the screen through which the software communicates with the users. There is only one window display on a screen; however, two or more overlapping windows may appear on the screen at once, but only one of the windows is active at a time.

(iv) **Title Bar:** Is located at the top of the window

(v) **Command Button:** is a rectangular shaped figure, which specifies an instant action or response that will be carried out by a computer anytime it is selected.

(vi) **Edit Menu** contains several menu items that can be used to remove and copy data from one location to another or from one application programs to the other.

The edit menu contains the cut, copy and paste menu. The copy menu leaves the source document intact, while cut erases it and paste menu is used to place the document at a particular location.

(c) **Items to be disclosed in abridged financial statements**

- Material events occurring after the balance sheet date
- Where there is a change in accounting policy, estimation of the financial effect of such change must be disclosed where they are material.

The primary objectives of abridged financial statements are to:

- Specify the minimum contents of abridged financial statements
- Standardized formats for presenting abridged financial statements
- Improve comparability and usefulness of abridged financial statements.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
ADVANCED AUDITING AND ASSURANCE

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. The responsibility for auditing the accounts of Nigeria Customs Service is that of
   A. The Comptroller-General of Customs & Exercise.
   B. The National Assembly.
   C. The Auditor- General for the Federation.
   D. The Chairman of EFCC.
   E. The Chief Internal Auditor of the House of Representatives.

2. The Accounting Basis generally accepted and used in Government Ministries is:
   A. Commitment basis
   B. Accrual basis
   C. Cash basis
   D. Obligation basis
   E. Fund basis.

3. A letter written by the Reporting Accountant authorizing the mention of their name by a company in its prospectus is.
   A. Constructive Service Letter
   B. Letter of Comfort
   C. Letter of Consent
   D. Letter of Prospectus
   E. Letter of Representation

4. Which of the following is not an appropriate step in minimizing Auditors' professional liability?
   A. Avoiding snap advice
   B. Compliance with Standards and Guideline on Auditing.
   C. Take out Professional Indemnity Insurance
   D. Aiding the Directors of a company to conceal vital information
   E. Compilation of good quality Audit Working Papers.

5. Audit firms can operate as a Partnership or Sole Proprietorship. Which of the following is not an advantage of a Partnership over Sole Proprietorship?

A. The growth of the firm is quicker
B. Liabilities are shared among the Partners
C. Responsibilities are also shared by the Partners
D. Liabilities of the Partners are limited to what they have contributed to the business
E. The Partner can specialize and become versatile in some specific areas of service.

6. Which of the following types of CAATs is not an example of Computer Audit Program?
   A. Utility Program
   B. Computer Audit Packages
   C. Client's installed file interrogation program
   D. Purpose written computer Audit Program
   E. Test Data Pack.

7. An auditor should disclose the reasons for expressing an Adverse Opinion in an explanatory paragraph;
   A. Within the material notes to the Financial Statements
   B. Preceding the Scope paragraph
   C. Following the Opinion paragraph
   D. Following the Scope paragraph
   E. Preceding the Opinion paragraph

8. When a company is unable to meet its Financial obligations to Stakeholders, it is deemed to be
   A. Bad.
   B. Bankrupt.
   C. Liquidated.
   D. Weak.
   E. Insolvent.

9. The system by which companies are directed and controlled in order to ensure transparency and accountability is:
   A. Management by Objective.
   B. Best Value.
   C. Corporate Governance.
   D. Efficiency Drives.
   E. Development Focus.

10. The means by which audit firms ensure that their expression of opinion on the Financial Statements always reflects the observance of approved Auditing Standards and relevant legal requirements is:

A. Assurance Engagement
B. Quality Control
C. Value for Money Audit
D. Operational Audit
E. Systems Audit

11. Which of the following is not an objective of Auditing Standards?
A. Minimize occurrence of fraud in operation
B. Provide a basis for Audit Assignment
C. Reduce engagement Risks
D. Bridge the gap that normally exist in the format of audit report
E. Ensure uniformity and Standardization of Audit Assignment.

12. When there are obvious inherent uncertainties regarding the entire Financial Statement and the Auditor concludes that a mere Qualification will be inadequate, the Auditor will issue a
A. Disclaimer of Opinion
B. True and Fair View Opinion
C. Except for Opinion
D. Adverse Opinion
E. Subject to Opinion.

13. Which of the following factors should not be considered in the division of work in the case of a joint audit between firms?
A. Size of the Firm
B. Possession of special skill by one of the Firms
C. Proximity to branch office of the client
D. Experience available to a particular Firm
E. Consideration of when the Firm was established.

14. In accordance with Prudential Guidelines for licensed banks, Non-Performing credit facilities should be classified into three categories, namely:
A. Quality, Adequate, Doubtful
B. Lost, Existing, Foregone
C. Credible, Appropriate, Standard
D. Substandard, Doubtful, Lost
E. Bad, Recoverable, Standard.

15. In assurance engagement of Financial Statements "Responsible Parties" are linked to

A. Shareholders
B. Government

C. Management
D. General Public
E. Professional Accountant.

16. The type of audit which seek to assess how well an organization performs in safeguarding the environment in which it operates is

A. Forensic Audit
B. Substantive Audit
C. Environmental Audit
D. Statutory Audit
E. Operational Audit.

17. A special type of CAATs used to identify the sequence in which program instructions are executed when processing transactions is

A. Parallel Simulation Technique.
B. Snapshot.
C. Mapping.
D. Integrated Test Facility.
E. Tracing Software.

18. Which of the following is not a potential duty of the Audit Committee?

A. Review of Financial Statement.
B. Liaison with External Auditors.
C. Review of Shareholders Register.
D. Review of Internal Audit.
E. Review of Internal Control.

19. An element of Assurance Engagement, which relates to 'benchmark', is called:

A. Suitable criteria
B. Intended users
C. An engagement process
D. Responsible party
E. A subject matter.

20. When carrying out the audit of Public Sector organization, the auditor must observe the following **EXCEPT**

A. Constitution of Federal Republic of Nigeria
B. Financial Regulations
C. Audit Act of 1956
D. Treasury Circulars
E. CBN Guidelines

PART II SHORT ANSWER QUESTIONS

1. A Quantitative Statement that sets out the number of hours to be spent and the anticipated revenue to be generated from the Audit is known as…………

2. The difference between the actual present role of the Auditor and the role expected of him by those who rely on the audit function is referred to as………….

3. Mention **TWO** Government Agencies that an Auditor may disclose his clients' Information.

4. A situation where a member of staff who has not been involved in the audit reviews the working papers immediately after the audit work is called…………

5. Which arm of Government does Public Accounts Committee report to?

6. Independent Professional Services that improve the quality of information, or its context, for decision makers is called…

7. Audit that seeks to assess how well an organization performs in safeguarding the Environment in which it operates and whether the company complies with its Environmental Policies is called

8. According to Prudential Guidelines, credit portfolio of any licensed bank must be classified into……..and……………

9. In Nigeria, Insurance Business are classified into……..and……..

10. The element of Value For Money Audit that measures the relationship between goods and services produced and the resources used to produce them is called…………

11. Within the context of Group Audit, a letter to the Auditors from the parent company of a subsidiary which individually does not appear to be a Going Concern, stating that it intends to continue to support the Subsidiary, rendering it a going concern is called……………………..

12. An appointed Liquidator is required to notify the Corporate Affairs Commission (CAC) of his appointment within…….days.

13. A type of review which a Practicing Firm reviews the Audit File of another Firm and points out to the partners of the investigated Firm areas that need to be improved is called…………

14. The monthly accounts submitted to the Accountant-General of the Federation by a Self Accounting Unit are called……

15. An act of examining, searching and inquiring into a matter with adequate care and accuracy, usually undertaken to obtain information of particular or special nature is called……………

16. The Receiver's powers of Management are usually set out in the…….Deed.

17. The Risk that a misstatement could occur in an Account Balance or class of transactions, could be material and would not be detected and corrected on a timely basis, by the accounting and internal control systems is known as……

18. The risk that the auditors' substantive procedures would not detect a misstatement that exists in an account balance or class of transactions that could be material either individually or when aggregated with misstatements in other balances or classes is known as……………

19. Computer audit programs and files, which are permanently integrated within the client's computerized accounting application and used by auditors for performing audit tests are known as…………

20. A situation where two or more practicing firms act as auditors of a company is referred to as………………………

SECTION B - ATTEMPT QUESTION 1 AND ANY OTHER THREE (60 Marks)

QUESTION 1 - CASE STUDY

Mr. Jaja is a Partner, with three others, in a small sized audit firm. One of his clients, Wande Ltd, has asked him to consider joining the Board of Directors of its subsidiary company, Campe Ltd. They have suggested that he leaves the practice to join the Board of Campe Ltd and continue to audit the parent company Wande Ltd in his own right.

The client felt that if Mr. Jaja left the practice, the partnership would automatically be dissolved and become ineligible to act as auditors of Wande Ltd, so that he could audit Wande Ltd. without offending his colleagues in the partnership.

Mr. Jaja agreed to join the Board of Directors of Campe Ltd but declined the offer to carry out the audit or the parent company, Wande Ltd. The client insisted that the former auditors would not be re-elected at the Annual General Meeting of Wande Ltd. and that Mr. Jaja should reconsider his position so that he could be appointed to replace the former auditors.

Required:

(a) Explain the reasons why Mr. Jaja is ineligible to act as Auditor of Wande Ltd. (3 Marks)

(b) What steps should the Auditor take when he becomes ineligible to act in that capacity? (3 Marks)

(c) What are the consequences of an Accountant acting in the capacity as auditor when ineligible to do so? (3 Marks)

(d) Describe the best course of action in relation to an audit that has been carried out by an ineligible person. (3 Marks)

(e) Comment on the Directors' assertion that the previous Auditors would become ineligible to act when Mr. Jaja left the practice because the partnership would automatically be dissolved. (3 Marks)

(Total 15 Marks)

QUESTION 2

Value for money audit has gained prominence in the audit of Public Sector organizations.

Required:

(a) Define value for money audit (3 Marks)

(b) List and explain **six** of the techniques which can be used to carry out value for money audit in the public sector. (12 Marks)

(Total 15 Marks)

QUESTION 3

Apart from the conventional auditing and accountancy services that firms of Chartered Accountants render to their clients, they can also offer many other professional services, one of these is acting as a Liquidator to companies that are having going concern problems.

Required:

(a) Who is a Liquidator? (3 Marks)

(b) How is a Liquidator appointed? (3 Marks)

(c) List **SIX** powers of a liquidator under CAMA 1990 as amended. (9 Marks)

(Total 15 Marks)

QUESTION 4

In relation to good Corporate Governance, Directors owe duties to various stakeholders.

Required:

(a) Define Corporate Governance. (3 Marks)

(b) List **SIX** reasons for the abuse of Corporate Governance by Directors of companies. (6 Marks)

(c) List **SIX** matters that must be communicated to those charged with the governance of an entity. (6 Marks)

(Total 15 Marks)

QUESTION 5

Information Technology (IT) has brought tremendous advantages to the business world but with a number of attendant risks.

Required:

(a) What is computer related risks. (3 Marks)

(b) List six computer related risks, giving examples. (12 Marks)

(Total 15 Marks)

QUESTION 6

"Due Process" has become a popular term for the Budget Monitoring and Price Intelligent Unit (BMPIU), saddled with implementing public procurement reform programmes.

Required:

(a) Define the term "Due Process" (3 Marks)

(b) List **FOUR** objectives and four functions of BMPIU (8 Marks)

(c) List **FOUR** objectives of the External Auditors when carrying out a review of due process. (4 Marks)

(Total 15 Marks)

SOLUTIONS TO SECTION A

PART I MULTIPLE CHOICE QUESTIONS

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

PART II SHORT ANSWER QUESTIONS

1. Audit Budget
2. Audit expectation gap
3. Any two of:
   - (i) EFCC
   - (ii) ICPC
   - (iii) NDLEA
   - (iv) Nigerian Police
4. Hot review
5. National Assembly
6. Assurance engagement
7. Environmental audit
8. Performing and Non-performing
9. Life Assurance business and Non-Life assurance business
10. Efficiency
11. Support letter
12. 14 days
13. Peer review
14. Transcripts
15. Investigation
16. Debenture deed
17. Control risk
18. Detection risk
19. Embedded audit facilities
20. Joint audit

SOLUTIONS TO SECTION B

SOLUTION 1 – CASE STUDY

(a) The main consideration here is whether or not Mr. Jaja is free of any interest likely to conflict with the proper conduct of the audit. Such an interest would include the Directorship of the subsidiary. The parent company's directors could also influence Mr. Jaja very easily, which is also in disagreement with ethical principles. It is highly likely that the independence rules of the Institute and IFAC, which regulates Mr. Jaja and Wande Ltd. Acceptable is infringed, thus disallowing the acceptance of the appointment by Mr. Jaja.

(b) An Auditor who becomes ineligible to act during his term of office should vacate the office immediately and give notice in writing to the company. A statement is always required of any circumstances, which the auditor considers should be brought to the attention of members or a statement that no such circumstances exist.

(c) Where an Accountant acts in the capacity of auditor whilst being ineligible to do so, he is guilty of an offence in accordance with ICAN and IFAC guidelines. The onus is on him to show that the fact of ineligibility was not known.

(d) Where an audit has been carried out by an ineligible person, the company could be required to have either a second audit (to decide if a second audit is required) to be conducted by an eligible person. The company concerned should comply with such a requirement and should be able to recover the costs incurred from the ineligible Auditor.

(e) Whilst Mr. Jaja remains a Director of Campe Ltd and a Partner in the accounting practice, both he and they are ineligible to act as auditors for either Wande Ltd or Campe Ltd.

(f) The partnership will not dissolve on the resignation of Mr. Jaja and the partnership rather than an individual can be appointed Auditor. There is no reason why the partnership could not audit Wande Ltd's accounts.

SOLUTION 2

(a) **Value For Money Audit**

Value for money audit involves the determination of the economy, effectiveness and efficiency of operations. It entails a review of the following aspects of an entity's operations.

- Nature and functioning of its managerial systems and procedures.
- The economy and efficiency with which its services are provided.
- The effectiveness of its performance in achieving objectives.

(b) **Techniques for Carrying Out a Value for Money Audit**

(i) **An initial analysis of financial statements and units' costs and other performance indicators:** This analysis should involve a comparison with past statistics and authorities of similar character. The Auditors should seek an explanation of trends and major differences from other authorities. The results of this initial analysis should give some guidance to those areas requiring a specific study.

(ii) **Management and Systems Review:** The purpose of this is to investigate the ways in which objectives are established, policies implemented and result monitored. The emphasis is on how efficiently this process is carried out rather than reviewing the objectives and policies themselves.

(iii) **Analysis of Planning and Control Process:** Exploring such means of comparing the objectives with the needs of the agency, method of identifying activities which are not meeting objectives, the use of investment appraisal techniques and the method of monitoring projects against the initial appraisal. In addition, methods of reviewing operating results should be studied by analyzing control and reporting systems and the extent to which they alert members and offices of the need for action.

(iv) **Efficiency Assessment:** This involves assessment of resources and management; suggestions include the use of checklists of good practice whereby reviewers would build up a detailed knowledge of cost effective practices, and based on this, a checklist would be developed and debated by auditors with Service Managers. Another suggestion is for a small number of specific investigations into activities with high unit costs, poor performance measures or suspected poor management in order to try and determine the reasons for adverse performance measures and identify the appropriate remedial action.

(v) **Effectiveness review:** This involves a study to determine whether or not the activities are achieving their stated objectives. This will involve discussions with service managers and committee members, on the details of particular services and requiring answers to such questions as to why the service is provided; the reasons for the service being provided, and what alternatives have been considered, and why they have changed and how performance is measured.

(vi) **Reporting:** the draft report should be discussed in detail with members and officers before it is finalized and presented.

SOLUTION 3

(a) A Liquidator is a qualified person appointed to take into his custody, or under his control, all property and choses in action to which the company is or appears to be entitled, realize the assets and discharge all outgoings, preparatory to end the company's existence.

(b) The Court may appoint a Liquidator for the purpose of conducting the proceedings in winding up of a company.

Also a liquidator may be appointed by creditors or members in a voluntary winding up.

(c) According to section 425(1&2) of CAMA 1990, the powers of a liquidator in winding up shall include:

(i) To bring or defend any action or other legal proceedings in the name and on behalf of the company.

(ii) To carry on the business of the company as far as may be necessary for its beneficial winding up.

(iii) To appoint a legal practitioner or any other relevant professionals to assist him in the performance of his duties.

(iv) To pay any classes of creditors in full as ranked.

(v) To compromise all calls and liabilities to calls, debts and liabilities capable of resulting in debts and all claims present or future, certain or contingent, ascertained or sounding, only in damages against the company.

(vi) To make any compromise arrangement with creditors.

(vii) To sell the property of the company of whatever nature by public or private contract.

(viii) To appoint any agent to do any business of the company which he is unable to do himself.

(ix) Prove and rank claim in the bankruptcy, insolvency of any contributors for any balance in his estate.

(x) To do all such other things as may be necessary for winding up the affairs of the company and distributing its assets.

SOLUTION 4

(a) Corporate Governance is the way and manner in which the affairs of companies are conducted by those charged with the responsibility.

It is the system by which companies are directed and controlled.

(b) Directors that are charged with the responsibility of exhibiting good Corporate Governance are now found to be abusing it due to various reasons including;

(i) Quest for power

(ii) The wish to take over other companies.

(iii) Greed: the desire for large salaries, share option and pensions.

(iv) The desire for secrecy both for commercial reasons and for private purpose.

(v) The need for new capital for their companies.

(vi) The fear of take-over and hence of loosing their jobs.

(vii) The desire to evade tax

(viii) Lack of due prosecution of the unscrupulous directors who have in the past involved themselves in financial malpractice.

(c) Auditors are expected to communicate to a client management on a timely basis, matters such as:

(i) The general approach and over all scope of the audit including any expected limitation thereon or any additional requirement.

(ii) Material uncertainties related to events and conditions that may cast doubt on the entity's ability to continue as a going concern.

(iii) Audit adjustment, whether or not recorded by the entity that have or could have a significant effect on the entity's financial statements.

(iv) The selection of or changes in, significant accounting policies on the entity's financial statements.

(v) Expected modifications to the auditors' report.

(vi) Material weaknesses in internal controls questions regarding management integrity and fraud involving management.

(vii) The potential effect on the financial statement of any significant risk and exposure, such as litigation that are required to be disclosed in the financial statement.

(viii) Disagreement with management about matters that individually or in aggregate could be significant to entity's financial statements or the auditors' report.

SOLUTION 5

(a) Computer risks are those uncertainties associated with the use of computer systems. They may be general/organizational risks or application/procedural risks.

General organizational risks are those risks existing in the environment in which systems and programs are developed and used. Application or procedural risks are those risks, which exist over the input, processing, output as well as the updating and maintenance of the master file of individual applications processed within the computer.

(b) Some of the risks prevalent in a computer based accounting environment are:

(i) Systems development-related risks such as:
- Unauthorized amendments of computer programs
- Unauthorized modification of the computer system
- Programming errors
- Systems design errors
- Unauthorized development of new systems and programs.

(ii) Computer operations-related risks such as:
- Computer fraud or errors by staff or outsiders
- Delays in processing users' data
- Unauthorized use of the computer.
- Use of the computer for unauthorized purposes.

(iii) Computer file related risks such as:
- Damage of computer files
- Unintentional over writing of computer file
- Theft of computer files
- Loss of computer files
- Unauthorized use of computer files.

(iv) Computer security and failure risks such as:
- Damages to the computer hardware (this may be caused by sabotage, poor handling, dust, humidity, temperature, fire, water, floor, thunder/lightening or others).
- Theft of computer hardware;
- Breakdown of computer hardware
- Power failure

(v) Computer input data risks such as;
- unauthorized input data
- invalid input data
- incorrect input data
- incomplete input data
- conversion or invalid data
- incorrect conversion of input data

(vi) Computer processing risks such as;
- Invalid computer output
- Incorrect computer output
- Incomplete computer output
- Unauthorized access to and use of the computer output.

(vii) File maintenance and Updating Risks such as;
- Invalid updating of master file records.
- Incorrect updating of master file records
- Incomplete updating of master file records
- Unauthorized amendment of reference data
- Incorrect amendment of reference data
- Incomplete amendment of reference data.

SOLUTION 6

(a) Due process is a mechanism put in place by the Federal Government of Nigeria to ensure strict compliance with rules and procedures guiding the award of contracts at the federal level. The policy is to ensure that award of government contract ensures transparency and accountability.

(b) **Objectives of BMPIU** include:

(i) To harmonize and update all Federal government policies and practices on public procurement.

(ii) To ensure that project conceptualization and packaging match the defined priorities and targets as set in annual appropriations.

(iii) To strictly enforce the due process principles of transparency, competition and efficiency and value for money in the procurement of public goods, works and services.

(iv) To ensure efficiency and integrity based on monitoring of the implementation of all federal government projects in line with due process principles.

(v) To prove extra budgetary spending by ministries, departments and agencies by ensuring that only projects with due appropriation by the National Assembly are certified and thus funded for execution.

(vi) To prevent contract inflation by ensuring cost reasonableness, accuracy and comparability of all public contracts with national, regional and global costs.

Functions of BMPIU

(i) Regulates and sets standards to enforce harmonized bidding and tender documents for all Federal government contracts.

(ii) Formulates general policies and guidelines on public sector procurements.

(iii) Develops, updates, maintains relevant system wide database and technology.

(iv) Upholds professional ethics and reports erring procurement personnel, public officials, departments and private sector companies and their personnel to relevant authorities for appropriate application of prescribed sanctions.

(v) Monitors prices of tendered items and provide price database advisory services to the public sector.

(vi) Performs procurement audits.

(vii) Documents and monitors Federal Government projects from point of award until completion.

(viii) Coordinates training to promote capacity building of procurement personnel and development of systems and standards in the public sector.

(ix) Sensitizes, promotes and educates the public on public procurement issues.

(x) Advises the president on status of Federal Government procurement in relation to the annual appropriation.

(c) The External Auditors' objectives when carrying out a review of "Due Process" are as follows:

(i) To confirm whether Federal Government rules and regulation have been complied with when awarding contracts.

(ii) To ensure transparency and accountability in the award of contracts.
(iii) To ensure openness, competition, merit, right cost and value for money.
(iv) To detect fraud or error in the award of contracts.
(v) To report findings on the review of due process to the appropriate authorities.

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA
PROFESSIONAL EXAMINATION I
ADVANCED AUDITING AND ASSURANCE

SECTION A (Attempt All Questions)

PART I MULTIPLE-CHOICE QUESTIONS (20 Marks)

1. A systematic review of an organization's activities or a part thereof, in relation to the economic, efficient and effective use of resources is
   A. compliance audit.
   B. forensic audit.
   C. operational audit.
   D. financial statement audit.
   E. government audit.

2. The Committee that examines the report of the Auditor–General for the Federation, and any unresolved matters of persons indicted in the report is
   A. Ad-hoc Committee.
   B. Appropriation Committee.
   C. Audit Committee.
   D. Public Accounts Committee.
   E. Finance and General Purposes Committee.

3. Where facts are discovered by the Auditor after the date of his report, but before the financial statements are issued, the Auditor should;
   A. Request the Audit team to review the entire audit procedure
   B. Consider whether the financial statements need amendment, discuss the matter with management, and take action appropriate in the circumstance
   C. Report to the Audit Committee
   D. Report to the Auditor-General for the Federation
   E. Report the matter to the Corporate Affairs Commission.

4. For the purpose of nominating a member to serve on the Audit Committee of a company, by how many days before the Annual General Meeting (AGM) must the nomination be submitted to the Company Secretary?
   A. 21days
   B. 10 days
   D. 30 days
   E. 40 days
   C. 14 days

5. The circumstances that could give rise to disagreement, which may influence the Auditors' opinion include the following, **EXCEPT**
   A. Failure to comply with the relevant legislation.
   B. Disagreement over the Audit Fees.
   C. Inappropriate Accounting Policies
   D. Disagreement as to the facts or amounts included in the Financial Statements.
   E. Disagreement as to the manner or extent of disclosure of facts or amounts in the Financial Statement.

6. A Statutory Auditor is permitted to depart from the rule of confidentiality of clients information in the following circumstances, **EXCEPT**
   A. the client is suspected to have committed a treasonable felony.
   B. the information is required for training purposes.
   C. to protect the interest of the Auditor.
   D. there is a public duty to disclose.
   E. the client is involved in terrorist act.

7. Investigation for investment decision will not include one of the following:
   A. Purchase of shares.
   B. Purchase of business.
   C. Partnership participation.
   D. Loan facility decision.
   E. Reporting on economic forecast.

8. Which one of the following documents provides a clear set of instructions to follow in executing an audit work?
   A. Audit Planning Memorandum.
   B. Audit Budget.
   C. Letter of Engagement.
   D. Audit Programme.
   E. Audit Report.

9. In Assurance Services, limited Assurance is also
   A. negative circularisation.
   B. positive assurance.
   C. negative assurance.
   D. negative representation.
   E. positive representation.

10. A situation where the Balance Sheet is presented to show a state of affairs that is considered buoyant rather than the actual position of the enterprise is

A. forgery.
B. manipulation.
C. window dressing.
D. falsification.
E. teeming and lading.

11. The process for designing effective training system by an Audit Firm could adopt the following steps, **EXCEPT**
    A. Selection of appropriate training methods.
    B. Establishment of an appropriate training institution.
    C. Assessment of employee readiness for training.
    D. Creation of a learning environment.
    E. Assessment of training needs.

12. Which of the following is not an example of an Assurance Engagement?
    A. A statutory audit
    B. Report and Statement of Accounting Policies
    C. Report on corporate social responsibility performance
    D. Report on environmental performance
    E. Report for lenders and other investors.

13. In which case was the statement **"The auditor is a Watch Dog, not a blood hound,"** made by the judge?
    A. Re-London & General Bank (1895)
    B. Re-Thomas Gerrard & Sons Ltd (1967)
    C. Re- Kingston Cotton Mill Ltd (1896)
    D. Re-City Equitable Fire Insurance Co. Ltd (1924)
    E. Re-Mackesson and Robins Inc. USA (1939).

14. One of the objectives of good corporate governance within an organization is to:
    A. ensure transparency and accountability in the management of an entity
    B. guarantee that employees collect their salary monthly
    C. instruct the directors to collect their entitlements on time
    D. assure compliance with EFCC rules and regulations
    E. direct that engagement letters are acknowledged.

15. Which one of these is a disadvantage of joint audit?
    A. It allows for exchange of ideas and techniques.
    B. Audit risk may be minimized.
    C. It improves the Auditors' skills.
    D. Each firm is potentially liable jointly and severally for negligence of others.
    E. Audit Fees are shared in an agreed ratio.

16. Which of the following is not true of Audit Risk?
    A. Its existence can lead the Auditor to give an invalid opinion on the Accounts.
    B. It includes inherent risk.
    C. It includes control and detection risk.
    D. It can be mathematically expressed as: Audit risk = Inherent Risk X Control Risk X Detection risk.
    E. It cannot be minimized in any form.

17. In carrying out the audit of an insurance company, which of the following is the most important matter that an Auditor must pay attention to?
    A. Whether the company has a copy of Insurance Act.
    B Whether the company has registered with Nigeria Insurance Association.
    C. Whether the company has maintained its Margin of Solvency.
    D. Whether the company has registered with NAICOM.
    E. Whether the company has been established in accordance with CAMA, 1990.

18. Review of Financial Statements at the final stage of Audit involves all **EXCEPT**
    A. Review of contingencies
    B. Review of Post Balance Sheet events
    C. Analytical review procedure
    D. Review of expertise/skills
    E. Review of Related Party transactions.

19. In a voluntary winding up resolution made by the members of a company, there must be a statutory declaration of solvency made by Directors, filed with Corporate Affairs Commission within:
    A. 7 days immediately preceding the date of the resolution
    B. 5 weeks immediately preceding the date of the resolution
    C. 2 weeks immediately preceding the date of the resolution
    D. 3 weeks immediately preceding the date of the resolution
    E. 4 weeks immediately preceding the date of the resolution.

20. The Statutory creditors given priority payment during a liquidation process are:
    A. Secured creditors
    B. Debenture holders
    C. Preferential creditors
    D. Unsecured creditors
    E. Official creditors.

PART II - SHORT-ANSWER QUESTIONS (20 MARKS)

1. In order to ensure adequate, relevant and effective quality control in Audit and Assurance Services, monitoring activities should be either on a .... or .... basis.

2. Two common types of Assurance Engagements are: ...... and ....services.

3. In the case of the audit of Financial Statements of banks, there is usually a reporting requirement, on............ of Banks and Other Financial Institutions Act 1991 (BOFIA) and/or CBN circulars, if any.

4. The set of established rules that guides the behavioural standard of members of a professional body is titled ......

5. Any two elements of Value For Money Audit (VFM) are ....and.............

6. The Budget Monitoring and Price Intelligence Unit in the Presidency is otherwise referred to as ....Office.

7. The legislation resulting from deliberations on the Budget and submitted to the National Assembly is..............

8. An appointed Receiver of the court is..............

9. A Chartered Accountant in Public Practice who reports under the relevant provision of CAMA 1990 and/or the listing requirements of the NSE is...............

10. Forensic accounting encompasses investigative accounting and...............

11. The process by which someone is appointed and vested with the right to receive property belonging to a company is...............

12. The Auditors with responsibility for reporting on the audit of Financial Statements of an entity when those Financial Statements include information of one or more other companies audited by other auditors are known a...............

13. A type of Computer Assisted Audit Technique (CAAT) used to verify the existence of program controls within the client computer is ....

14. A transfer of resources or obligation between familiar parties regardless of whether a price is charged is...............

15. An item is said to be…………, where its non-disclosure, omission or misstatement could distort the true and fair view shown by the financial statements.

16. The term which describes a method whereby business is conducted over the internet by electronic rather than paper based method is……………

17. A code involving an access control mechanism to prevent an unauthorized access to information stored in a computer system is known as…………

18. The term for any system whereby the event giving rise to a transaction and updating of all related master file records occurring virtually simultaneously is …………..

19. A communication from the Secondary Auditor to the Primary Auditor, explaining all the procedures followed in the audit of the subsidiary company is known as………

20. When an auditor gives an assurance that nothing has come to his attention which indicates that the financial statements have not been prepared in accordance with the Generally Accepted Accounting Principle (GAAP), the auditor has given a …………

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

QUESTION 1- CASE STUDY

Auditors Appointment and Remuneration

The Directors of Zumanco Limited have approached you to act as their Auditors, having recently terminated the appointment of the former Auditors. The company is prepared to pay you ₦7,500,000 as audit fee, plus a bonus of 3% of the profits after taxation. The company manufactures and retails building materials. There is a very high turnover of employees as the Directors have low regard for employee welfare. The business practices of the company had been previously investigated by appropriate authorities but no action had been taken against the Directors or the company. The company blames the endemic frauds on ineffective or failed audit.

Required:

(a) Explain the steps the Auditors must take before deciding whether or not to accept the nomination as Auditors (4 Marks)

(b) What are the rights of the Auditors? (6 Marks)

(c) Comment on the method of remuneration proposed by the directors. (5 Marks)

(Total 15 Marks)

QUESTION 2

Some Audit Firms feel that mergers between the large firms of Auditors are necessary in order to meet the global demand for their services. However, smaller firms are concerned that such mergers will create a monopolistic market for Audit Services.

Required:

(a) Outline **SEVEN** reasons why the big audit firms might wish to merge their practices. (7 Marks)

(b) Identify **EIGHT** potential problems associated with mergers of the big firms of auditors. (8 Marks)

(Total 15 Marks)

QUESTION 3

(a) What is Audit Planning Memorandum? (3 Marks)

(b) Give **FIVE** main features of Audit Planning Memorandum. (6 Marks)

(c) Explain **THREE** benefits of preparing Audit Planning Memorandum. (6 Marks)

(Total 15 Marks)

QUESTION 4

Forensic Audit is deployed to combat both financial and economic crimes'.

Required:

(a) Explain the term Forensic Audit. (2 Marks)

(b) Explain **TWO** main types of Forensic Audit. (4 Marks)

(c) What is the role of Forensic Audit in combating corruption? (4 Marks)

(d) Mention any **TEN** public agencies that may use Forensic Audit Services. (5 Marks)

(Total 15 Marks)

QUESTION 5

You have been engaged to carry out the audit of an insurance company that engages in General Insurance Business.

Required:

Explain the **THREE** Technical Reserves required to be maintained by the insurance company in respect of Non-Life policies in accordance with the requirements of the Insurance Act, 2003 **(15 Marks)**

QUESTION 6

Advertising and publicity for Chartered Accountants in Public Practice is covered under statement No, 8 of the Professional Conduct for members.

Required:

Outline the guidelines on advertising and publicity given by the Institute as contained in that statement. **(15 Marks)**

SOLUTIONS TO SECTION A

PART I MULTIPLE-CHOICE QUESTIONS

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

PART II SHORT-ANSWER QUESTIONS

1. Continuous or Periodic
2. Assertion-based; and Direct reporting based
3. Contraventions
4. Code of Professional Ethics
5. Economy Audit, Efficiency Audit and Effectiveness Audit.
6. Due Process
7. Appropriation Act
8. Official Receiver
9. Reporting Accountant
10. Litigation support
11. Receivership
12. Primary or Principal Auditors
13. Test pack or Test data
14. Related-party Transaction
15. Material
16. e-commerce
17. Password
18. Real-time
19. Summary Review Memorandum
20. Limited Assurance.

SECTION B

SOLUTION 1-CASE STUDY

(a) **Steps before accepting nomination.**

(i) The Auditors should ensure that they are Professionally Qualified to act as Auditors and are not disqualified for any legal, ethical or professional reasons.

(ii) The Auditors must be satisfied that the firm is able to meet the client's needs from existing resources in terms of staff with the appropriate experience, qualifications, competence level, and the right time to carry out the work.

(iii) The Auditors should gain an understanding of the nature of the client, and its business. In this context, the auditors should enquire into the reasons why:

- the company had been investigated
- the incidence of rampant frauds, including the strength or otherwise of controls
- high staff turnover; and
- the impression of failed audit.

(iv) The Auditors should, with the company's permission, communicate with the previous Auditors, to enquire if there is any professional reason to decline the appointment. If permission is withheld by the client, the auditors cannot accept nomination. The new Auditors can only properly accept the nomination if the previous auditors confirm that there are no legal or professional reasons why appointment should not be accepted.

(b) **The auditors have the following legal rights**:

(i) A right of access at all times to the books, accounts and vouchers of the company.

(ii) A right to require from Officers of the company such information and explanations as may be considered necessary for the audit.

iii) A right to attend any General Meeting of the company and to receive all notices of, and communications relating to such meetings, which any member of the company is entitled to receive.

(iv) A right to be heard at any General Meeting that concerns them as auditors.

(v) A right to make written representations when the company proposes to appoint auditors other than themselves.

(vi) A right to requisition an Extraordinary General Meeting (EGM) to consider any circumstances which members ought to know about in connection with their resignation or removal.

(vii) A right to require the holding of a general meeting of members for the purpose of making representation on the report and accounts.

(c) **The fee charged by Auditors should be based on the approved professional scale rate of fees.**

The firm may determine the options most appropriate in the circumstance e. g., time taken and the seniority of the staff involved, taking into account the costs profile of the firm. Normally, hourly rates of charge could be used which could vary according to the grades of staff assigned and according to the complexity of the work involved. The Auditors may also consider adopting a scale rate of fees based on percentage of total turnover; or total cost where appropriate and more acceptable to client. Outright negotiation may be preferred depending on the magnitude of the amount involved.

The use of contingency fee or percentage of Profit Basis for calculating the fee is not acceptable for normal audit work. In this case, the use of a percentage of profits after taxation as a bonus could tend to influence the auditors in making adjustments that could reduce the profit figure. The fixed figure of ₦7,500,000 could be acceptable if the auditors are satisfied that it is reasonable, in relation to the time taken and staff employed in carrying out the audit work, or other basis. Care must be taken to ensure that the auditors' independence is not impaired by personal interest threat.

SOLUTION 2

(a) **The reasons for the merger of Audit Firms** could include the following:

(i) The desire to operate on a global scale and increase market share.

(ii) The urge to service multinational clients demanding international presence.

(iii) Increased pooling of expertise and professional experience.

(iv) Business expansion ambition predicated on the competitive nature of auditing and consultancy services, and global dominance by the larger firms.

(v) Resultant increase in funds available for investment (increasing demand for investment in IT systems creates the need for pooling of scarce resources).
(vi) The need to compete with banks that are increasingly offering management consultancy services.
(vii) To spread and reduce risks of liability claims.
(viii) To reduce the ability of major clients to exert fee pressures, thus, preserving improved financial independence.
(ix) To increase the range of opportunities available to skilled and competent staff.
(x) To take advantage of cost savings.

(b) **Possible problems created by merger of large Audit Firms** could include:
(i) A reduction in choice of clients due to paucity of large clients.
(ii) Possible conflicts of interest arising from mergers of firms providing services to competing clients.
(iii) A reduction in Auditors' independence, particularly as a result of increasing provision of consultancy services.
(iv) The emergence of "Audit Giants" which weakens the arguments for limiting Auditors' liability.
(v) Dominance of the profession by 'Giant Firms', involving unfair competition.
(vi) Increase in the influence of large firms on the standard setting process.
(vii) Redundancies caused by elimination of overlapping departments.
(viii) Scrutiny of the mergers by outside agencies.
(ix) Disputes emerging between partners as to management styles leading to resignation of disaffected partners and loss of experience.
(x) A loss of the 'personal touch; which is a feature of smaller firms.

SOLUTION 3

(a) Audit Planning Memorandum (APM) refers to the audit plan documentation prepared by the Auditors, containing all of the information obtained and the decision reached in the process of Audit Planning Programme. The objectives of Audit Planning Memorandum are to provide formal record of the planning process and the programme, communicated to the Audit Team to facilitate the audit process.

(b) The contents of audit planning memorandum can be outlined under five (5) broad categories.

(i) **Background Information of the client**, which covers the following:
- A brief historical background of the entity

- The nature and trend of the enterprise's business.
- The organizational and management structure of the enterprise.
- Significant accounting policies followed by the entity in the preparation of its financial statements.
- The terms of reference of the audit assignment.
- The Accounting and Internal control procedures of the entity.

(ii) **Audit Strategy Memorandum**, which contain the following:
- The audit objectives.
- The overall audit approach
- Audit Risk analysis for the various sections of the financial statements and the approaches to be adopted in respect of each section.
- Areas requiring special audit attention and the procedures to be applied.

(iii) **Jobs or Assignment Administration Memorandum**, which includes:
- ➢ The Partner in charge of the Audit Assignment.
- ➢ The Manager in charge of the Audit.
- ➢ The Seniors and other staff in charge of the Audit.
- ➢ Dates of the audit visits including any interim visits, and final audit visit.
- ➢ Dates and details of such events as:
- ➢ Manager's field review; Manager's final review; Circularization of Debtors and Creditors; Confirmation of bank balances.
- ➢ Stock takes
- ➢ Cash count.
- ➢ Management Representation Letter.
- ➢ Partner's final review
- ➢ Reporting deadline.
- ➢ The Audit time Budget
- ➢ The Audit Procedures.

(iv) **Audit Programme**

This section of the Audit Planning Memorandum usually contains programme for the various sections of the audit work specified, e.g. compliance and Substantive Audit Procedures.

(v) **Summary Review Memorandum**

This section relates to standard formats of job requirements or scope of work carried out, and standard information to be supplied as evidence of work done, to guide the review of audit performance. It includes communication with auditors of groups (primary and secondary auditors) concerning matters of audit interest; including summary of audit differences.

(c) **Benefits of Audit Planning Memorandum**

(i) Assists in the review of audit work.

(ii) Shows logical approach adopted in the plan of work

(iii) Serves as a guide for future audit planning.

(iv) Provides evidence of proper audit planning in case of litigation.

(v) It is useful for training audit staff.

(vi) It provides evidence of work performed in case of disagreement on scope.

(vii) A basis for comparison of Audit plan and actual performance.

SOLUTION 4

(a) Forensic Audit is the investigation of suspected irregular activities within an entity either public or private sector, with a view of obtaining evidence that could be used in support of any proceedings in a law court. Forensic audits also includes the examination of documents and accumulation of evidence to determine the correlation to established criteria in a manner that is suitable to the court. It involves the application of auditing and investigation skills to situations in such manner that the evidence obtained are presented in such a way that it can satisfy the rigours of legal proceedings.

(b) Forensic Audit can be grouped into two broad approaches namely:

(i) Reactive forensic

(ii) Proactive forensic

(i) **In Reactive forensic**, the investigator proceed with the forgone conclusion that something obviously wrong has occurred, or evidence that a fraud has probably occurred and this is to be thoroughly investigated. The task is to investigate the causes of the suspected fraud or wrong, and if the suspicion are proven, to identify the person(s) involved, support the findings with relevant, reliable, full or complete, and persuasive evidence and to present the evidence in acceptable format in any subsequent disciplinary or criminal proceedings. In this type of fraud investigation, the following must be kept in view.

- ❖ Documentation of the relevant information and safeguarding all prime records.
- ❖ Obtaining as much as possible, evidence of proof in manner acceptable in accordance with the rule of evidence.
- ❖ Evaluation of the evidence to assess whether the case is sustainable.
- ❖ Reporting the findings in a manner that meet legal requirements.
- ❖ Reviewing the findings and recommendations to ensure that the conclusions drawn are derivable from the available corroborated evidence.

(ii) **In Proactive Forensic**, the investigator has few or no clues that anything wrong has occurred. The investigation will be based on the assessment or general review of activities within an entity to highlight risk areas arising either out of system weaknesses or from any other source including deliberate acts of staff and those charged with management. The approach assumes that something could be wrong though there may be nothing arousing such suspicion. The task is to assess operations, systems, and records including relevant information about the entity from various sources; to establish the likely existence of any incidence latent or otherwise, that suggests anything wrong. Such clues can then be pursued to greater depth of investigation on a systematic basis. It is pertinent to note that the rule of evidence acceptable in a court proceeding must normally be observed in the procedures.

(c) **The basic role of forensic audit** is to facilitate the prevention, detection, reporting, and investigation of economic and financial crimes, and the prosecution and recovery of losses suffered, in both the Public and Private sectors. The role may be achieved through the initiation of an economic crime awareness and deterrence programme with a view to highlighting the existence of potential Risks and the need for an economic crime prevention strategy in organizations. It includes schemes of compliance monitoring, widespread alert mechanism, and the so-called Whistle Blowing. The appointment of Compliance Officer to liaise with relevant enforcement agencies forms an integral part of the preventive scheme.

(d) **Some public agencies that are likely to use forensic audit services include:**

(i) Economic and Financial Crimes Commission (EFCC)
(ii) Nigerian Police Force (Criminal Investigation Department.)
(iii) State Security Service (SSS)
(iv) National Drug Law Enforcement Agency (NDLEA).
(v) Independent Corrupt Practices Commission (ICPC)
(vi) Central Bank of Nigeria (CBN);
(viii) Nigerian Deposit Insurance Corporation (NDIC)
(ix) National Insurance Corporation (NAICON)
(x) National Pension Commission
(xi) Federal Inland Revenue Service; and State Internal Revenue Services
(xii) Securities and Exchange Commission and Nigerian Stock Exchange
(xiii) Federal and State Ministries of Justice.

SOLUTION 5

(a) In accordance with Section 20 of Insurance Act, 2003 a General Insurance Company must maintain the following Technical Reserves:

(i) **Outstanding Claims Reserves**

The objective of this Reserve is to make provision for reported claims by policy holders at the year end. The amount to be transferred to this Reserve shall be the total of estimated amount and an extra provision of 10% of unreported claim in the preceding year to cater for unreported claims in the year under review. (Section 20,Insurance Act,2003).

(ii) **Un-expired Risk Reserve**

This Reserve is calculated on a time apportionment basis, of the risks accepted in the year. (Section 20 (1) (a) Insurance Act, 2003)

(iii) **Contingency Reserve**

The objective of this reserve is to cater for fluctuations and variations in Statistical Estimates. The amount to be transferred to this Reserve shall be the higher of:

- 3% of gross premium, and
- 20% of net profit.

This Reserve should be calculated until it reaches the higher of:

- Minimum Paid-up Capital, and
- 50% of Net premium.

(Section 21 (1)-(2), Insurance Act, 2003)

(b) In accordance with section 17 of the Insurance Act, 2003 every licensed insurance company shall maintain the following records which constitute proper books of accounts

(i) The Memorandum and Articles of Association
(ii) The Register of Members
(iii) The Minutes of Meetings
(iv) Register of Investments
(v) Register of Assets
(vi) Register of Policies in force
(vii) Register of Loans on Life Policies
(viii) Register of Lapsed and Expired Policies
(ix) Register of Policies Ceded
(x) Cash Book
(xi) Current Account Books
(xii) Register of Claims.

SOLUTION 6

The Institute gives some guidelines on advertising and publicity, including:

(a) A firm may be allowed to make responsible publicity, of its services, or achievements, or make employment adverts, in a way consistent with the ethics of the profession.

(b) In doing so, he/she should not project an image inconsistent with that of a professional person bound by high Ethical and Technical Standards.

(c) Advertisement should be clearly distinguishable as advertisement.

(d) Advertisement must comply with the law and should be Legal, Decent, Clear, Honest and Truthful.

(e) If reference is made in promotional material to fees, members should not make comparison in such material between their fees and the fees of other accounting practices, whether members or not;

(f) Promotional material should not make disparaging reference to or disparaging comparison with the services of others, for example, claims of size or quality are subjective and may be difficult to substantiate and therefore should be avoided.

(g) Unsolicited promotional; or technical material should not be sent to a non-client by facsimile transmission or other electronic means; and

(h) In relation to audit or other financial reporting work, a member should not make an unsolicited personal visit or telephone call to a person who is not a client, with a view to obtaining professional work from the non-client.