THE INSTITUTE OF CHARTERED ACCOUNTANTS OF NIGERIA

FOUNDATION LEVEL EXAMINATION-PILOT QUESTIONS AND SOLUTIONS

BUSINESS ENVIRONMENT

Time Allowed: 3 ¼ hours (including 15 minutes reading time)

SECTION A: **MULTIPLE-CHOICE QUESTIONS**   **(20 MARKS)**

INSTRUCTION: **YOU ARE REQUIRED TO ATTEMPT ALL QUESTIONS IN THIS SECTION**

1. The type of business that buys products with the intention of using them as raw materials to make new products is called_____.

   A. Service
   B. Merchandise
   C. Processing
   D. Manufacturing

2. The type of partnership whereby the partner takes active role in the business, but he/she is not known to the public as a partner in the business is known as _____.

   A. Secret
   B. General
   C. Limited
   D. Nominal

3. A strategic partnership between two or more companies that collaborate to achieve mutually beneficial goals while maintaining their identities is known as _____.

   A. Collaboration
   B. Business combination
   C. Cooperative grouping
   D. Business alliance

4. The process of settling conflicts, supporting the rule of law, enforcing contracts, and safeguarding property rights is called_____.

   A. Copyright law
   B. Legal framework
   C. Rules and regulations
   D. Arbitration

5. The process that systematically surveys and interprets relevant data to identify external opportunities and threats that could influence future business decisions is called_____.

   A. SWOT analysis
   B. PESTEL analysis
   C. Environmental scanning
   D. Forecasting

6. The statement that shows performance for revenue, net income, expenses and earnings per share is referred to as the _____.

   A. Balance sheet
   B. Statement of account
   C. Trading, profit and loss account
   D. Income statement

7. The policies, procedures, and mechanisms that a finance team puts in place to control and monitor the access to financial data and systems within an organisation are called _____.

   A. Administrative controls
   B. Access controls
   C. Technical controls
   D. Physical controls

8. Which of the following is **NOT** a role of professional bodies and regulators in promoting ethical awareness and discipline?

   A. Advocating for public interest
   B. Enforcing whistleblowing
   C. Establishing codes of ethics
   D. Monitoring and enforcement

9. The process of using resources in a way that allows for an efficient, effective execution of the organisation's tactical plans is known as _____.
   A. Organising
   B. Planning
   C. Controlling
   D. Directing

10. The set of values, beliefs, attitudes, systems, and rules that outline and influence employee behaviour within an organisation is called _____.

   A. Organisational culture
   B. Organisational structure
   C. Organisational statement
   D. Organisational mission

11. The following are conflict resolution strategies **EXCEPT:**

A. Negotiation
B. Arbitration
C. Collaboration
D. Mediation

12. The process by which we interpret the thoughts, beliefs, intentions, emotions, knowledge, and actions of another person along with the context of the situation to understand that person's experience is called _____.

A. Emotional intelligence
B. Social thinking
C. Creative ability
D. Empathy

13. Which of the following does NOT cause a change in the supply curve?
A. Technological advancements
B. Rising costs for similar products
C. A decrease in the cost of inputs
D. Favourable weather circumstances

14. When the price of a product rises above its equilibrium price, the amount supplied of that commodity _____.
A. Surpasses demand
B. Equals demand
C. Less than the demand
D. Constantly rises

15. The output of the variable factor used per unit is known as_____.
A. Product margin
B. Average product
C. Total product
D. Average cost

16. The sum of the average fixed cost and average variable cost is _____.

A. Average cost
B. Marginal cost
C. Total price
D. Total fixed cost

17. Which of the following is NOT a core module in accounting software?

A. Payroll Management
B. General Ledger
C. Manufacturing Process Simulation
D. Accounts Payable

18. What is the primary benefit of cloud-based ERP systems?

    A. Increased on-site server costs
    B. Inflexibility in customization
    C. Better scalability and affordability
    D. Restricted data access

19. The primary purpose of a disaster recovery plan in a data centre is to _____.

    A. Reduce hardware procurement costs
    B. Ensure business continuity and minimise downtime during disruption
    C. Increase employees' productivity through flexible work policies
    D. Eliminate the need for data backups

20. Customer relationship management (CRM) primarily aims at:

    A. Optimising customers' businesses
    B. Managing customers' inventory
    C. Enhancing customers' satisfaction and loyalty
    D. Handling customers' logistics

SECTION B: **OPEN ENDED QUESTIONS**   **(80 MARKS)**

INSTRUCTIONS: **YOU ARE REQUIRED TO ANSWER FOUR QUESTIONS IN THIS SECTION**

QUESTION 1

The public sector comprises organisations that are owned and operated by the government and exist to provide services to the populace.
Required

(a) List and explain **THREE (3)** types of public sector organisations.   (3 Marks)
(b) State and explain the challenges facing public sector organisations in Nigeria.   (7Marks)
(c) List any **TEN (10)** examples of public sector organisations.   (10 Marks)
                                                                                 (TOTAL – 20 Marks)

QUESTION 2

In today's modern world, organisations have moved from bricks and mortar into a virtual space.
To move into this virtual space, organisations need to take certain steps.

Required:
(a) Define virtual organisational structure.   (3 Marks)
(b) Highlight the key steps in using virtual organisational structure.   (7 Marks)
(c) List and explain the framework of a virtual team organisational structure   (10 Marks)
                                                                                 (TOTAL – 20 Marks)

QUESTION 3

Many corporate failures have been attributed to inadequate internal controls. This emphasises the importance of controls and checks in corporate governance.

Required:
(a) Explain internal control.   (3 Marks)
(b) Explain how periodic reconciliation enhances internal control.   (7 Marks
(c) Highlight essential elements of an internal check.   (10 Marks)
                                                                                 (TOTAL – 20 Marks)

QUESTION 4

At Zenith Agro Industries Ltd, a Nigerian agro-processing company, employees share a strong sense of teamwork, customer focus, and community involvement. From open office design and weekly team chants to colourful boards displaying values like "Integrity" and "Innovation," their daily routines and symbols reinforce a unique way of working. Stories of staff rallying to launch new products during tough market times highlight how this shared culture guides behaviour, builds loyalty, and keeps the company resilient even amid external challenges.

Required:
(a) Define organisational culture.   (3 Marks)
(b) List the examples of organisational culture elements.   (7 Marks)
(c) Highlight any **FIVE (5)** roles of organisational culture.   (10 Marks)
                                                                                 (TOTAL–20 Marks)

QUESTION 5

The production schedule of AdCom Nigeria Limited for a particular period is as shown below:

Fixed Input (Y)	Variable Input (X)	Total Product (TP_x)	Average Product (AP_x)	Marginal Product (MP_x)
6	0	0	-	-
6	2	----	----	50
6	3	180	----	----
6	4	----	65	----
6	5	----	----	140
6	6	----	100	----
6	7	980	----	----
6	8	----	----	-580

Required:
(a) Explain whether the above production schedule is for a short or long run.   (2 Marks)
(b) Use your knowledge of production functions to complete the above production
      schedule   (7 Marks)
(c) Explain the concept of production possibilities curve (PPC).   (5 Marks)
(d) Explain any **THREE** types of demand.   (6 Marks)
                                                                                                                        (TOTAL 20 Marks)

QUESTION 6

Enterprise Resource Planning (ERP) and the Internet of Things (IoT) are converging to create more efficient and intelligent business operations to improve customers' satisfaction.

Required:

(a) Explain the concept of enterprise resource planning (ERP); and   (5 marks)
(b) How ERP systems improve business processes   (10 marks)
(c) Explain any **FIVE (5)** challenges in implementing Internet of Things (IoT).   (5 marks)
(d) Explain any **TWO (2)** benefits of the Internet of Things (IoT)   (5 marks)
                                                                                                                        (TOTAL – 20 marks)

SUGGESTED SOLUTIONS

SECTION A – MULTIPLE CHOICE QUESTIONS (MCQ)

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

SECTION B : OPEN ENDED QUESTIONS

SOLUTION 1

(a) **The types of organisations in the public sector include**:
   i.   Government agencies and departments: These consist of agencies and departments that work within and are funded by federal, state or local branches of government;
   ii.   Government ministries: These are various ministries such as agriculture, finance, health, defence, works & housing, etc.;
   iii.   Parastatals (Government owned corporations): For example, NNPC Limited, NPA, NHIS, NIMC, etc.;
   iv.   Educational and research institutions: For example, government owned tertiary institutions, Nigeria Institute of Medical Research (NIMR), etc;.
   v.   Military and defence institutions: For example, Nigerian Navy, Nigerian Police, Nigerian Civil Defence, etc.;
   vi.   Special intervention and development agencies: Niger-Delta Development Commission, South-West Development Commission, North-Central Development Commission, etc.;
   vii.   Quasi – government institutions (public private partnerships): For example, Power Holding Companies of Nigeria (PHCN), LAMATA, etc.;
   viii. Judiciary and legislative bodies: For example, Supreme Court, Court of Appeal, National Assembly (Senate and House of Representative), National Judicial Commission, High Court, National Industrial Court, etc.;
   ix.   State and local government institutions: LASMA, TRACE, primary health care centres, etc.;
   x.   Public program agencies: These are organisations that provide goods and services, as well as public programs. They are separate organisations from government agencies and departments and are often governed by a commission or board of directors; and
   xi.   Public enterprises: Public or state-owned enterprises provide goods and services to the public but are independent of the government. They typically have other sources of revenue that do not just consist of public funding.

(b) **Challenges facing the public sector**

   The following are some of the challenges facing public sector organisations:
   i.   Budget Constraints: Because the public sector is controlled by the government, the services it provides are subjected to annual budget processes. This means certain services provided by the public sector can be sacrificed when budgetary constraints force cuts to be made;
   ii.   Lack of Efficiency: As mentioned earlier, compared to the private sector, the public sector tends to be less efficient. This is partly due to the public sector not being driven by profit and partly due to lack of competition;
   iii.   Cyber-attacks: Because public agencies collect and store sensitive data, cybercriminals have started to look at them as targets. One of cyber-attacks used in targeting the public sector is ransomware. Ransomware is a type of malware that encrypts a computer's files and locks users out of the system. For the victim to get their files back and be allowed back into their system, they must pay a ransom to the cybercriminal. As cyber-attacks in the public sector increase, it is important for organisations to strengthen their ability to mitigate risk, simplify compliance and combat them;
   iv.   Poor leadership: The leadership in the public sector organisation is usually through political appointment which does not give consideration for merit;
   v.   Corruption: the public sector organisations are rife with corruption;

<ol type="i" start="6">
Political interference: Decisions sometimes prioritise political interest over economic and social impact. Changes in government can disrupt continuity of policies and projects;
Talent retention and capacity gap: Public sector organisations have difficulty attracting and retaining top talents due to their inability to pay competitive wages. These lead to capacity gaps. Poor and inadequate training accentuate these problems;
Compliance and regulatory complexity: Navigating multiple, overlapping laws and reporting requirements can burden agencies and slow down actions;
Red-tape and bureaucracy: Excessive layers of approval and rigid procedures slow down decision making and innovations; and
Weak accountability and governance system: Gaps in internal control, transparency and oversight, create risks in management, corruption, inefficiency and break down in public trust.

(c)   Examples of public sector organisations include:
<ol type="i">
education, such as, tertiary, secondary and primary institutions;
postal services, such as, NIPOST;
public utilities, such as, water corporation, NERC, Lagos State Electricity Board;
social services, such as, Federal Fire Service;
emergency services, such as, NEMA;
transit infrastructure, such as, Nigerian Railway Corporation, Airlines, State transport authority;
healthcare, such as, teaching hospitals, State hospitals, Primary Health Centres;
social housing, such as, Federal Housing Authority, Federal Mortgage Bank;
military, such as, Nigerian Army, Nigerian Navy, Nigerian Airforce;
tax collection, such as, Nigeria Revenue Service (formerly Federal Inland Revenue Service), State Internal Revenue Service;
refuse collection, such as, Lagos State Waste Management Authority (LAWMA); Enugu State Waste Management Agency (ESWMA); and
Advertising Agency, such as, Lagos State Signage and Advertisement Agency (LASAA), Ogun State Signage and Advertisement Agency, Oyo State Signage and Advertisement Agency, Abia State Signage and Advertisement Agency, Enugu State Signage and Advertisement Agency, Department of Outdoor Advertisement and Signage, Abuja Metropolitan Management Council, etc.

SOLUTION 2

(a) A virtual organisational structure is a modern, flexible business model that leverages information and communication technologies to support operations despite geographical barriers. Employees can work remotely, while the organisation can manage and coordinate work seamlessly.

The virtual network organisational structure, also known as a network structure, brings together various independent entities towards a common goal or project. It relies heavily on outsourcing, partnerships, and contractual agreements.

(b) The following key steps can help in navigating the transition smoothly:
<ol type="i">
Plan and assemble resources: Evaluate the resources needed to support a virtual structure and ensure they are readily available. This involves not just physical resources like computers and secure internet connections, but also the necessary digital tools for communication and collaboration like video conferencing tools, project management platforms, etc.

ii.   Employee training: Prepare the team members for the transition by offering necessary training on work protocols, communication guidelines, and use of digital tools. Remember, the shift to a virtual structure is a significant change for many, and proper training can ease the transition.

iii. Setting goals: Each team member must understand his/her roles and responsibilities clearly. This requires a well-articulated performance measurement system for performance tracking.

iv.   Communication: Regular and robust communication is vital to a successful virtual team. Ensure that clear communication channels, both formal and informal, are in place.

v.   Building trust: In a virtual environment, trust becomes paramount. Leaders should find ways to foster transparency, encourage team collaboration, and build a trusting environment.

(c)   The framework of a virtual team organisational structure primarily revolves around four central aspects: Communication, Coordination, Balance, and Trust.

i.   Communication: In a virtual team, employees may be located across various time zones and geographical regions. Therefore, clear and effective communication is critical. This is often facilitated through digital tools and platforms, allowing for synchronous (real-time) and asynchronous (delayed) communication.

ii.   Coordination: In a virtual team organisational structure, maintaining a system that synchronises tasks and schedules is also essential. This is achieved through high-quality project management tools, ensuring every team member is informed of their responsibilities, deadlines, and the broader project timeline.

iii. Balance: This involves balancing various elements like work time, personal time, and time for collaborative tasks within a team. Implementing a flexible work routine to cater to different time zones and personal commitments can be a valuable strategy.

iv.   Trust: Trust is a fundamental factor in a virtual team. Since face-to-face interactions are minimal, fostering a safe environment built on reliability, integrity, and mutual respect is vital.

SOLUTION 3

a.   Internal controls are processes, policies and procedures put in place by an organisation's management and board to achieve its objectives.

Internal controls help companies to comply with laws and regulations and prevent misappropriation of the organisation's assets. They can also help improve operational efficiency by ensuring that budgets are adhered to, policies are followed, capital shortages are identified, and accurate reports are generated for leadership.

b.   Periodic reconciliations
The next internal control to consider are periodic reconciliations. Similar to periodic trial balances, these are run on a regular basis and compare an internal accounting records with external sources. Common examples of accounts to reconcile are:
i.   Bank Accounts: Where you compare internal cash balances to bank statements to identify any missing deposits, outstanding checks, or accounting errors.

    ii. Credit Card Statements: Ensuring that all charges are legitimate and no unauthorized activity has occurred.

    iii. Accounts Receivable: Comparing the total amount listed in your accounts receivable with any outstanding balances from customers.

Periodic reconciliations are extremely important because they help:

c. The essential elements of an internal check are:
    i. checks are implemented on day-to-day transactions;
    ii. checks operate continuously as a part of the system; and
    iii. the work of each person is complementary to the work of another.

SOLUTION 4

a. Organisational culture is the collective behaviours, attitudes, and norms that define how people interact and align with a common purpose. It is the foundation of a company's success, shaping how employees work, collaborate, and grow. It goes beyond shared values or written policies. The culture reflects how employees, customers, vendors, and stakeholders experience the organisation and its brand.

A strong culture fosters collaboration, drives innovation, and builds trust, influencing everything from employee engagement to customer perception. Whether it is solving challenges, making decisions, or creating meaningful connections, organisational culture is the force that shapes every aspect of a business.

b. Examples of organisational culture elements

Organisational culture elements include:
    i. Dress code: Formal or casual attire can reflect the organisation's culture;
    ii. Office layout: Open spaces or private offices can influence communication and collaboration;
    iii. Meeting styles: Formal presentations versus informal brainstorming sessions;
    iv. Communication channels: Email, instant messaging, or social media can shape communication norms; and
    v. Employee perks and benefits: These can reflect the organisation's commitment to employee well-being.

c. Roles of organisational culture

Organisational culture plays multiple crucial roles within an organisation, including shaping employee behaviour, influencing decision-making, promoting teamwork, and fostering adaptability. It also impacts employee engagement, retention, and overall business performance. Therefore, organisational culture plays the following roles:

    i. Shaping behaviour and expectations: Organisational culture defines the expected behaviours and values, guiding how employees interact, make decisions, and approach their work;
    ii. Influencing decision-making: Culture can impact how decisions are made, whether they are based on consensus, top-down directives, or a more collaborative approach.
    iii. Fostering teamwork and collaboration: A strong culture can promote teamwork, communication, and cooperation among employees, leading to more effective collaboration on projects and tasks;
    iv. Enhancing employee engagement and retention: A positive and supportive culture can increase employee engagement, motivation, and job satisfaction, leading to higher retention rates;

v.   Driving innovation and adaptability: A culture that encourages experimentation, risk-taking, and learning can foster innovation and enable the organisation to adapt to changing market conditions and customer needs;

vi.   Improving communication and knowledge sharing: A culture that values open communication and knowledge sharing can facilitate the flow of information, improve decision-making, and enable employees to learn from each other's experiences;

vii.   Influencing leadership styles: Organisational culture can impact how leaders are perceived and how they lead their teams, shaping the overall leadership style of the organisation;

viii.   Attracting and retaining talents: A positive organisational culture can make it easier to attract and retain top talents, as potential employees are drawn to organisations with values and practices that align with theirs;

ix.   Enhancing employees' performance: A healthy and supportive culture can enhance employees' performance by creating a positive work environment, reducing stress, and promoting a sense of belonging; and

x.   Building a sense of identity and purpose: Organisational culture can help employees feel a sense of belonging and purpose within the organisation, fostering a stronger connection to the company's mission and values.

SOLUTION 5

(a)   The production schedule is for the short-run period. This is due to the fact that it has both variable and fixed input. While input X is variable, input Y is fixed.

Fixed Input (Y)	Variable Input (X)	Total Product (TP$_X$)	Average Product (AP$_X$)	Marginal Product (MP$_X$)
6	0	0	-	-
6	2	100	50	50
6	3	180	60	80
6	4	260	65	80
6	5	400	80	140
6	6	600	100	200
6	7	980	140	380
6	8	400	50	-580

(b)   The production possibilities curve shows possible maximum combinations of two goods that an economy can produce with full and efficient use of the available resources.
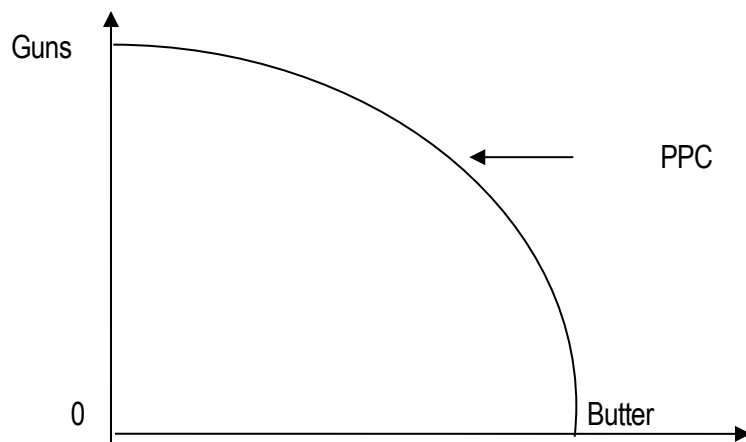
The above diagram shows the production possibilities curve for an economy producing butter and guns. The slope of the PPC is called marginal rate of substitution, while its shape, which is concave to the origin, implies that resources are not equally productive in all production points.

(c) Types of demand

i.   Joint/complementary demand
     When two goods increase customer satisfaction when taken together rather than separately, they are said to be in joint or complementary demand. Examples include a car and gas, a camera and film, bread and butter, and a cassette player and cassette.

ii. Competitive demand
     When products compete for the same consumer's money, they are said to be in competitive demand. These products are replacements, meaning they can be consumed in place of one another. Park milk and optimal milk, beef and chicken, pig and cow meat, and so forth are a few examples.

iii. Derived demand
     This is a situation where the demand for a good/service arises for a demand for another related good/service. It is the demand for Product X because it is needed to manufacture Product Y that is in demand.
     For instance, the demand for wood comes from the desire for furniture, and the demand for crude oil comes from the demand for gasoline. Demand for any aspect of a product is often derived.

iv. Composite demand
     When a commodity is sought for multiple purposes, that is, has alternative uses, it is said to have a composite demand.

     For instance, corn has a composite demand since it can be consumed by human, animals' feeds, corn starch for pharmaceutical, beauty products, etc. to make variety of items.

SOLUTION 6

(a) Enterprise Resource Planning (ERP) is an integrated software platform used by organisations to manage and automate core business processes across different departments such as finance, human resources, manufacturing, supply chain, and customer service. ERP systems improve business processes by integrating operations into a single unified system, enabling real-time information sharing, improving decision-making, reducing duplication of efforts, enhancing efficiency, and ensuring better coordination across departments.

(b) Challenges in implementing Internet of Things (IoT)

    i.   Reliability: Unreliable communication or device failure can lead to data loss, delayed responses, and compromised safety. To ensure reliability, both hardware and software across all IoT layers must be designed to support consistent data availability and resilience against failures.

    ii.   Performance: Evaluating IoT performance is complex due to its dependence on diverse technologies and components. Metrics such as processing speed, data transmission rate, energy efficiency, and device scalability determine performance. Yet, a unified standard for assessing end-to-end performance across heterogeneous environments remains underdeveloped.

    iii.   Interoperability: The diversity of devices, platforms, and communication protocols poses significant interoperability challenges. Ensuring that devices from different manufacturers work seamlessly together requires standardization, adherence to common protocols, for example, WiFi, NFC, GSM, etc., and interoperability testing environments like ETSI plugtests.

    iv.   Security and privacy: The absence of a universal security architecture makes data exchange vulnerable to unauthorised access, cyberattacks, and breaches of user privacy. Key management, access control, and secure data handling must be integrated at both the network and application layers to address these issues effectively.

    v.   Management complexity: Managing billions of devices entails challenges in configuration, monitoring, fault detection, and performance optimisation. Protocols such as Lightweight M2M (LWM2M) and NETCONF Light are emerging to support remote management of resource-constrained devices. Real-time IoT platforms, such as MASH, also provide scalable tools for asset management and connectivity monitoring.

    vi.   Manufacturing and environmental impact: Scalable IoT adoption requires cost-effective manufacturing such as producing passive RFID tags for under one cent and environmentally sustainable production methods. Circular design strategies that emphasize reuse and recycling across the device lifecycle are increasingly vital.

    vii.   Lack of governance: A fragmented global governance structure impedes standardisation and coordination. The coexistence of non-compatible identification schemes, for example, EPC global vs. Ubiquitous Networking Lab, risks market fragmentation. A unified and neutral governance model is necessary to promote interoperability, scalability, and cross-border trust.

(C) Benefits of Internet of Things (IoT)
    IoT technology is transforming how businesses operate and interact with customers. Its advantages include:
    i.   Operational efficiency: Enhanced tracking, predictive maintenance, and resource optimisation.
    ii.   Data-driven insights: Continuous data collection enables better forecasting and decision-making.
    iii.   Personalised services: Devices can adapt to user behaviour and preferences.

iv.   Innovation opportunities: Supports new business models, such as smart homes, smart cities, and connected healthcare.