INTERMEDIATE COURSE

PAPER : 7A

Enterprise Information Systems

BOOKLET ON MCQs & CASE SCENARIOS

BOARD OF STUDIES

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

© The Institute of Chartered Accountants of India

This Booklet has been prepared by the faculty of the Board of Studies. The objective of the Booklet is to provide teaching material to the students to enable them to obtain knowledge in the subject. In case students need any clarifications or have any suggestions to make for further improvement of the material contained herein, they may write to the Director of Studies.

All care has been taken to provide interpretations and discussions in a manner useful for the students. However, the Booklet has not been specifically discussed by the Council of the Institute or any of its Committees and the views expressed herein may not be taken to necessarily represent the views of the Council or any of its Committees.

Permission of the Institute is essential for reproduction of any portion of this Booklet.

© The Institute of Chartered Accountants of India

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission, in writing, from the publisher.

Revised Edition	:	January, 2022
Website	:	www.icai.org
E-mail	:	bosnoida@icai.in
Committee/Department	:	Board of Studies
ISBN No.	:	
Price	:	₹
Published by	:	The Publication Department on behalf of The Institute of Chartered Accountants of India, ICAI Bhawan, Post Box No. 7100, Indraprastha Marg, New Delhi 110 002, India.
Printed by	:	

Preface

This booklet on Independent/Case-scenario based Multiple Choice Questions on Enterprise Information Systems is the collection of various techniques and technologies used in various business processes involved in Financial and Accounting Systems, E-Commerce & M-Commerce transactions, emerging technologies and Core Banking Systems. These case scenarios and Multiple Choice Questions reflect the changes in business having borderless economies consequent to giant leap in e-commerce, emergence of new financial instruments, emphasis on corporate social responsibility and significant developments in the field of information technology.

This booklet is comprised of some significant cases that have a lasting effect on the application of emerging technologies, banking systems and financial processes. Enterprise Information Systems, as a subject at Intermediate level helps you inculcate the requisite IT skill-sets necessary for achieving the desired professional competence. The issues under information technology in the prevailing scenario can be better understood through the relative case scenarios.

As a part of its continuous endeavour towards enrichment of knowledge, Board of Studies, through this booklet wishes to create awareness amongst the students about the various significant strategies and techniques relating to information technology. This edition of booklet includes 35 Case Scenarios and 120 Multiple Choice Questions under Paper 7A: Enterprise Information Systems of Intermediate Course. Being the part of examination, this value addition will lead to understanding of above on the interpretational, application and analysis of information technology techniques therein. This publication contains the summarized version of the facts of the fundamental concepts of Information systems and business process flows, Financial and Accounting systems, Core Banking Systems and e-commerce and m-commerce transactions.

This booklet is relevant for May 2022 Examination and onwards.

Wishing you happy reading!

© The Institute of Chartered Accountants of India

© The Institute of Chartered Accountants of India

MULTIPLE CHOICE QUESTIONS

1. An Enterprise Information System (EIS) provides a technology platform that enables organizations to integrate and coordinate their business processes on a robust foundation. Identify the statement that does not fall under the list of objectives of EIS.

   (a) Reduce service cycles

   (b) Identify manual processes

   (c) Reduce costs

   (d) Increase operational efficiency

2. Depending on the size, nature of work and complexity involved in the processes of an organization; business processes are often broken up into different categories – Primary, Secondary and Management Processes. Which one of the following falls under the purview of Primary Processes?

   (a) Deals with legal compliance

   (b) Deals with the core business and value chain

   (c) Deals with core processes and functions within an organization

   (d) Deals with measuring, monitoring and control activities

3. A manufacturing company is facing an issue of not being able to provide timely supply of its products to the customers. Mr. Anil, an IS Auditor of this company identified that the delay is due to the manual processing of certain processes involved in the company. He suggested that the company should adopt _____ to overcome the problem.

   (a) Core Banking Systems

   (b) Strategic Level Systems

   (c) Business Process Automation

   (d) Expert Systems

© The Institute of Chartered Accountants of India

4. Mr. X has setup his new business of manufacturing color pens. He is well known about various kinds of risks involved in his business; however, he unintentionally violated some industry regulations while setting up his business. Which category of the risk does this refer to?

   (a) Strategic

   (b) Financial

   (c) Compliance

   (d) Operational

5. Gigs and Gigs, the food court in a shopping mall wants to automate its manual cash counter into an automated card system. Same card can be used at various food outlets in the food court. This automation optimizes the information flow in service and billing. Identify from the following objectives of Business Process Automation that Gigs and Gigs is achieving by using this method.

   (a) Governance & Reliability

   (b) Reduced Costs

   (c) Reduced Turnaround Time

   (d) Quality and consistency

6. Mr. Z is pursuing the course of MCA and is undergoing the practical training in an e-Commerce company. He has been given a task to prepare a flowchart describing the flow of transactions through various modes of payment used by customers to pay the bill to company. Identify the terminology that is irrelevant to the process of making of flowcharts.

   (a) Process

   (b) Decision

   (c) Document

   (d) Risk

7. Enterprise Risk Management (ERM) framework consists of interrelated components that are used to identify events that are relevant to

© The Institute of Chartered Accountants of India

organization's objective. Identify which of the following is not a component of ERM Framework.

(a) Internal environment

(b) Organization chart

(c) Objective setting

(d) Event identification

8. The objective of Internal Control is to enable an organization to manage its challenges or disruptions seamlessly. Identify which of the following is not an objective of Internal Control.

(a) Compliance with applicable laws and regulations

(b) Meeting sales targets

(c) Reliability of reporting

(d) Effectiveness and efficiency of operations

9. Which one of the following deals with Section 143 of the Companies Act, 2013?

(a) Acquisition and Mergers

(b) Powers and duties of Board of Directors

(c) Powers and duties of auditors and auditing standards

(d) Penalties due to non-compliance

10. ABC Corporative bank strictly follows the policy of Sensitive Personal Information. Choose the attribute that is not defined as Sensitive Personal Information.

(a) Home address

(b) Password

(c) Financial information

(d) Biometric information

11. Mr. Shravan, HR Manager of a Multinational Company (MNC) asked his subordinate to prepare the files of various processes involved in

© The Institute of Chartered Accountants of India

Human Resource Management. Which of the following does not form part of HR Management?

(a) Training and Development

(b) Career Development

(c) Leadership Development

(d) Invoicing

12. To make a success in the business and to reduce the timing of manual work, the organization should implement Business Process Automation (BPA) which involves documentation as well. Which of the following is not a benefit of documentation of BPA implementation?

(a) Clarity on the process

(b) To find the bottlenecks

(c) Identify the source of inefficiency

(d) Design new policy format

13. An online store follows a process of intimating about whole tracking of the order placed by the customers through SMS on their registered mobile numbers. This activity is a perfect example of _____.

(a) Supply Chain Management

(b) Customer Relationship Management

(c) Order to Cash Cycle

(d) Procure to Pay

14. A huge oil spilled from an oil well run by British Petroleum, one of largest oil companies in world, and resulted in an assessed environmental damage of about USD 20 Billion. The company expanded an amount of USD 2 Billion on promotional ads informing the world that it is an environment friendly company. The promotional advertisements were done to prevent the company from ___ damage.

(a) Strategic

(b) Operational

© The Institute of Chartered Accountants of India

(c) Financial

(d) Reputational

15. A bank shares financial data of its borrowers with third-party without consent of borrowers. Identify the rule of Sensitive Information and Personal Data Rules, 2011 that bank has violated.

(a) Rule 3

(b) Rule 4

(c) Rule 5

(d) Rule 6

16. As an internal auditor of a steel company, Mr. Ajay observed that the vendor supplying the material to manufacture steel has begun to supply the damaged material. He reported this issue to the company's top management. Which of the following risk management strategy would be followed by top management of company, if they decided to seek for more capable supplier and leave the current supplier?

(a) Accept the Risk

(b) Transfer the risk

(c) Terminate the Risk

(d) Treat the risk

17. In the bi-annual meeting of DEF Hotel Group, the senior officials are discussing risks that could impact hotel's effective working in relation to customer satisfaction and change integration. Which of the following business risk is being discussed in the meeting?

(a) Financial risk

(b) Compliance risk

(c) Operational risk

(d) Hazard risk

18. Identify from the following controls that does not belong to Information Technology General Controls.

© The Institute of Chartered Accountants of India

(a) Management of Systems Acquisition and Implementation

(a) Change Management

(c) Exception Reporting

(d) User Training and qualification of Operations personnel

19. A&B Financial Ltd. company provides loans against gold. The company has created policy to ensure each disbursed loan has been properly documented, gold accepted as security has been properly valued and same is kept in secured vaults. _____ would ensure management's directives to mitigate risks to the achievement of objectives are carried out. Fill in the blank with appropriate option from the following.

(a) Control Activities

(b) Control Environment

(c) Risk Assessment

(d) Information and Communication

20. K&K son's Ltd. automated all its business processes to operate efficiently and effectively. Identify the factor that is responsible to ensure that no unauthorized amendments can be made in its data after implementing Business Process Automation.

(a) Availability

(b) Integrity

(c) Timeliness

(d) Confidentiality

21. Mr. X is responsible to maintain the inventory of newly opened showroom of electronic goods in Delhi. From the following, identify the item which does not form part of Inventory Master Data.

(a) Stock Item

(b) Stock Group

(c) Salary Structure of stores in-charge

© The Institute of Chartered Accountants of India

(d) Godown

22. XYZ Ltd. is an ink manufacturing company that implemented enterprise-wide information system to coordinate all resources and activities required to complete various business processes. Choose the main characteristic of ERP System from following.

(a) Separate data maintenance by each department

(b) Centralized Database

(c) No direct inter department communication

(d) No change in cycle time.

23. To sustain in today's competitive world and make the business a success, organizations are implementing ERP system and getting many benefits from the same. From the following, which is not a benefit of ERP?

(a) Information integration

(b) Reduction of lead-time

(c) Reduction in Cycle Time

(d) Enhanced Quality Costs

24. Mr. Rajesh has developed Accounting software for a private firm. While explaining the benefits of software to company's Management, he made a false statement about the back end of software. Identify from the following statements which he would have said about Back End.

(a) Communicates with user directly

(b) Processes the data

(c) Communicates with front end directly

(d) Generates the report

25. Mr. X works on Financial and Accounting System of a private firm and maintains different types of master data in the system. Which of the following master data is not controlled by the user and depends on the changes recommended by the government time-to-time?

© The Institute of Chartered Accountants of India

(a) Payroll Master data

(b) Statutory Master data

(c) Inventory Master data

(d) Accounting Master data

26. All of the following represents the attributes of information provided by Management Information System except one. Identify the odd one which does not belong to this category.

(a) Relevant

(b) Timely

(c) Accurate

(d) Scalable

27. Mr. Rajiv, a system administrator installed application software for attendance system of employees in automated working environment of Raj and Sons Ltd. During the briefing session about the system to management of Raj and Sons Ltd., he made certain statements mentioned below. Out of these, choose the statement that is not true for Installed software application.

(a) It is installed on the hard disc of the computer of the user.

(b) The access of the application is dependent on the speed of the internet.

(c) The user has full physical control over the data.

(d) Installed applications cannot be used from any other stand-alone computer.

28. The implementation of _____ involves Extract, Transform and Load (ETL) procedures in coordination with a data warehouse and then using one or more reporting tools.

(a) Business Reporting

(b) Inventory Accounting

(c) Financial Accounting

© The Institute of Chartered Accountants of India

(d) Payroll Accounting

29. While presenting data analytics report to the members of top management of his firm, Mr. X used acronym of various Data analytics tools which were non-understandable by many members. One of the terms that he often referred was OLAP. Help the members in solving confusion and finding the full form of OLAP.

(a) Offline Application Processing

(b) Online Analytical Processing

(c) Online Analytical Product

(d) Offline Application Product

30. Sales and distribution module is one of an important modules of ERP Package. Which of the following activity does not belong to Sales and Distribution Process?

(a) Pre-sales Activities

(b) Payment

(c) Delivery of product to customer

(d) Production Planning

31. If an organization does not want to install Financial Application on its own System to avoid the hassles of its implementation and maintenance, they can use _____ Applications as an alternative of the same.

(a) Cloud-based

(b) Software

(c) Installed

(d) Mobile

32. Mr. B, who works for private firm ABC Ltd., is required to make an entry in the Accounting system for maintaining a record of physical receipts of goods purchased from one of the firm's vendor. Which type of voucher shall he use to do the same?

(a) Delivery note

© The Institute of Chartered Accountants of India

(b) Receipt note

(c) Sales

(d) Purchase

33. In Accounting System, various types of vouchers are required to maintain transactions within organization. Which of the following transaction is not recorded in the voucher type "Contra" of the Accounting System?

(a) Cash deposit in bank

(b) Cash withdrawal in bank

(c) Cash transfer from one location to another

(d) Recording of all types of trading sales by any mode

34. Mr. R is an accountant of an engineering college who works on accounting system of the college. He is responsible to record all types of payments - salaries and incentives, made to teaching and non-teaching staff through any mode. Identify the type of voucher of accounting module used for this purpose.

(a) Receipt

(b) Contra

(c) Journal

(d) Payment

35. Mr. Anil is a clerk in accounts department of GBS Public school who works on accounting system well implemented in the school. He is supposed to record the details of purchase/sale of fixed assets on credit. Identify the voucher from following which is being used by him for this work.

(a) Contra

(b) Receipt

(c) Journal

(d) Payment

© The Institute of Chartered Accountants of India

36. JKM Pvt. Ltd. is an apparel manufacturing company well equipped with ERP. MM group approached JKM Pvt. Ltd. with a requisition of 1000 pieces of female black formal suits. Mr. Y, a senior manager of JKM Pvt. Ltd. wants to evaluate the current stock position and purchase order pending position of his company before accepting the requisition. Which of following module of ERP will help Mr. Y in this?

(a) Sales and Distribution Module

(b) Material Management Module

(c) Production Planning Module

(d) Supply Chain Management Module

37. VV Enterprises is a publication house that publishes kids' newspaper, reading and activity books. The management of VV Enterprises from its R&D department demanded an analysis on consumer behaviour on purchase of its publications during summer break and exam time. Which of the following Data Analytical tool would be helpful to R&D department?

(a) Machine Learning

(b) Predictive Analytics

(c) Data Mining

(d) Qualitative Data Analysis

38. Identify the false statement from the following statements on various modules of ERP.

(a) Controlling Module evaluates the profit or loss of individuals.

(b) Sales and Distribution Module includes product enquiries, placing order and scheduling activities.

(c) Plant Maintenance Module involves the process of planning the production activities.

(d) Human Resource Module deals with financial entries like advances or loan to employees.

© The Institute of Chartered Accountants of India

39. Organizations implementing ERP should be abreast of latest technological development. The control where care must be taken while selecting the vendor and upgrade contracts should be signed to minimize the risks, it belongs to _____ aspect of technological risks.

    (a) Technological Obsolescence

    (b) Application Portfolio Management

    (c) Enhancement and Upgrades

    (d) Software Functionality

40. ABC Company started using SAP as application software for its HR and Accounting department. Which of the following layer of the software carries the instruction and processes them using data stored in database?

    (a) The Database Layer

    (b) The Application Layer

    (c) The Operating System Layer

    (d) The Network Layer

41. Information Systems not only establish communication but also support decision making within an organization. Below mentioned are the components that comprise an Information system except one. Identify that odd one out.

    (a) People

    (b) Data

    (c) Network

    (d) Transaction

42. Communication controls responsible to handle exposures caused during the internetwork communication are categorized further based on the specific functions performed. Which of the following communication control incorporates features that mitigate the possible effects of exposure?

    (a) Line Error Control

© The Institute of Chartered Accountants of India

(b) Flow Control

(c) Channel Access Control

(d) Physical Component Control

43. In a computer system, a _____ memory which is volatile in nature and can read and modify the information is also referred as _____.

(a) Primary, Random Access Memory

(b) Secondary, Random Access Memory

(c) Secondary, Cache Memory

(d) Primary, Virtual Memory

44. In DBMS, Relational Database Model allows the data and its related operations like storage, retrieval, and integrity in a Table structure. All the terms mentioned below are associated with Relational Database Model except one. Pick that odd one out.

(a) Relations

(b) Attributes

(c) Objects

(d) Domains

45. Corrective controls are designed to reduce the impact or correct an error once it has been detected. Which of the following is not an example of Corrective Control?

(a) Backup Procedure

(b) Rerun Procedure

(c) Contingency Planning

(d) Hash Total

46. Mr. Y, a senior network administrator of HKL Pvt Ltd., sent a confidential data of the company to its Chief Financial Officer. For secure data transmission in a network, _____is a technique that converts data into a secret code for storage in databases.

(a) Encapsulation

© The Institute of Chartered Accountants of India

(b) Encryption

(c) Decryption

(d) Logging

47. The data entry operator of GC College is responsible to enter the amount of fees paid by the students. Accidentally, while making the entry, the fee amount of Ms. X of the amount ₹ 9854 was entered as ₹ 8954 in the software, leading to the reverse of two digits in the amount. Under Data Coding Control, which of the following error is made by data entry operator in this case?

(a) Transposition Error

(b) Substitution Error

(c) Addition Error

(d) Truncation Error

48. As a system administrator of a newly established start-up KJL Ltd., Mr. Kamal sets up its computer network in such a way that enables the network to recover from any kind of error like connection failure, loss of data etc. In computer network, which of the following term's definition takes care of the said activities?

(a) Routing

(b) Resilience

(c) Contention

(d) Bandwidth

49. Every time when a user attempts to gain access to and employs system resources in an application, the chronology of each such event is maintained. Which Application Control is responsible to do so?

(a) Boundary Controls

(b) Input Controls

(c) Communication Controls

(d) Processing Controls of Information Systems

© The Institute of Chartered Accountants of India

50. Under Application Controls of Information Systems, _____ maintains the chronology of events that occur either to the database definition or the database itself.

(a) Output Controls

(b) Input Controls

(c) Database Controls

(d) Processing Controls

51. Big Data has captured the attention of businesses for its processing power to analyse the data for many benefits that it provides. Below mentioned are some of its benefits, except one. Identify it.

(a) Access to social data from search Engine.

(b) Early identification of risks to the services.

(c) Big data can be used to read and evaluate consumers' response.

(d) Increases computational power of application software.

52. Ms. Shilpi is a final year student of B.Tech who is required to submit her project report on Library Management System based on Relational Database Model. Which of the following example does not belong to Relational Database?

(a) Microsoft Access

(b) MySQL

(c) Java

(d) Oracle

53. Nice Collection is women apparel store with many branches in various cities of India. The management of store uses data mining technique to make analysis to determine the sale on weekends of festive month in cities with population less than 70,000. Which of the following is not involved in the technique used?

(a) Data Integration

(b) Data Selection

© The Institute of Chartered Accountants of India

(c) Data Transformation

(d) Data Distribution

54. An IS Auditor is using an audit tool that involves embedding audit software modules within a host application system to provide continuous monitoring of system's transactions. Which audit tool does this refer to?

(a) Audit hooks

(b) System Control Audit Review File (SCARF)

(c) Integrated Test Facility (ITF)

(d) Continuous and Intermittent Simulation (CIS)

55. Mr. Ashu works in a Network Service provider Company where his job responsibility includes performing routine tasks in the network such as making minor configuration changes and monitoring event logs. Which of the following role does he perform in the company?

(a) Network Administrator

(b) Network Architect

(c) Network Engineer

(d) System Analyst

56. Mr. Y used duplicate keys to enter in prohibited area zone of JKH Ltd. company and stole some important documents of the company. Which of the following control you think has been compromised to make such an incident happen?

(a) Environmental Control

(b) Physical Access Control

(c) Network Access Control

(d) Logical Access Control

57. Below mentioned are the steps that are involved in the Data Mining process. Select the step wherein the data is collected from all the different sources to initiate the process.

© The Institute of Chartered Accountants of India

(a) Data Selection

(b) Data Integration

(c) Data Transformation

(d) Data Cleaning

58. Output Controls are responsible to ensure that the data delivered to users will be presented, formatted, and delivered in a consistent and secured manner. Which of the following activity does not fall under the purview of Output Control?

(a) Spooling

(b) Storage and Logging of sensitive, critical forms

(c) Asset Safeguarding

(d) Control over printing

59. Which of following statement does not belong to Read Only Memory?

(a) Non-volatile in nature.

(b) Used by manufacturers to store the data.

(c) Used to store small amount of information for quick reference by Central Processing Unit.

(d) It is a secondary memory.

60. Operating System Software provides Application Program Interfaces (API) which can be used by application developers to create application software. This is referred to as _____.

(a) Memory Management

(b) Hardware Independence

(c) Task Management

(d) File Management

61. Operating system acts as an interface between user and hardware; be it a Smartphone, tablet, or PC. Which of the following is not an example of Operating System?

© The Institute of Chartered Accountants of India

(a) Android

(b) Blackberry OS

(c) Apple OS

(d) Chrome

62. In two-tier network architecture, _____ is an interface that allows user to interact with the e-commerce / m-commerce vendor.

(a) Presentation Tier

(b) Database Tier

(c) Physical Tier

(d) Application Tier

63. Ms. Komal a technical product developer at FEGO Ltd. suggested the company to manufacture a model of self-driving car based on image and text recognition. This is a good example of _____.

(a) Machine Learning

(b) Expert System

(c) Cloud Computing

(d) Mobile Computing

64. ABC Company as its business policy allows employees of managerial level to use their preferred computing devices for business purpose. While working, Mr. Suraj connected his laptop to company's network and an application virus infected the company's database. Which of the following risks best describes the above situation?

(a) Implementation Risk

(b) Network Risk

(c) Application Risk

(d) Device Risk

65. Mr. X is buying clothes for his kids at Royal's Showroom. He makes payment using BHIM (Bharat Interface for Money) App which is an example of _____.

© The Institute of Chartered Accountants of India

(a) UPI App

(b) Mobile Hardware

(c) Digital Library

(d) Mobile Wallet

66. Which of the following is not a best practice under Green Computing?

(a) Dispose e-waste according to central, state, and local regulations.

(b) Purchase of desktop computers, notebooks and monitors based on environmental attributes.

(c) Power-down the CPU and all peripherals during extended periods of inactivity.

(d) Use Cathode Ray Tube (CRT) monitors rather than Liquid Crystal Display (LCD) monitors.

67. Choose the incorrect statement from following statements on Traditional commerce and e-commerce.

(a) Traditional commerce works on manual processing and e-commerce works on electronic mode.

(b) Resource focus of Traditional commerce is on demand side whereas e-commerce focuses on Supply side.

(c) Traditional commerce is limited to particular area whereas e-commerce has worldwide reach.

(d) Unlike Traditional commerce, e-commerce provides a uniform platform for information exchange.

68. The following steps are involved in the working of Mobile Computing.

(i) The user enters or accesses data using the application on handheld computing device.

(ii) Now, both systems (handheld and site's computer) have the same information and are in sync.

(iii) The process works the same way starting from the other direction.

© The Institute of Chartered Accountants of India

(iv) Using one of several connecting technologies, the new data are transmitted from handheld to site's information system where files are updated and the new data are accessible to other system user.

Identify from following the correct sequence.

(a) (i), (ii), (iii), (iv)

(b) (iv), (iii), (ii), (i)

(c) (i), (ii), (iv), (iii)

(d) (i), (iv), (ii), (iii)

69. If an organization wants to start its e-business in India, which of the following law will regulate its practices that it does not engage in any predatory practices?

(a) Indian Contract Act, 1872

(b) The Customs Act, 1962

(c) The Competition Act, 2002

(d) The Competition Act, 2004

70. In Cloud Computing, which instance of Software as a Service (SaaS) allows users to explore functionality of Web services such as Google Maps, Payroll processing and Credit Card processing services etc.?

(a) Testing as a Service (TaaS)

(b) Communication as a Service (CaaS)

(c) Data as a Service (DaaS)

(d) API as a Service (APIaaS)

71. Mr. Jayesh sets up an online start-up which is like conglomeration of different shops situated in a convenient location of e-commerce where customers can buy apparels, footwear, and fitness accessories. Identify from the following, which type of e-market has he setup?

(a) Buyer Aggregator

(b) e-Mall

© The Institute of Chartered Accountants of India

(c) e- Shop

(d) Portal

72. Ms. Radha started her business through a website www.tastyfood.com wherein few food vendors and restaurants are associated with her as the partner. The customers can place order for the food of his/her choice of vendor through the website. This is a good example of ____.

(a) e-Auction

(b) Buyer Aggregators

(c) e-Mall

(d) e-shops

73. Taste and tasty, an online tiffin service vendor has started a new policy wherein it provides certain credit points to customers whose bills are above ₹ 1000 per order. Customers can avail these credit points in the next order they place. Which of the following is taken care by Taste and tasty tiffin service as an e-commerce vendor?

(a) Privacy Policy

(b) Marketing and Loyalty program

(c) Different Ordering Method

(d) Supply Chain Management

74. PMP Ltd. is a network service provider company that has consolidated many physical servers into one large physical server to make the effective use of its processor. Which of the following concept does this refer to?

(a) Network Virtualization

(b) Grid Computing

(c) Storage Virtualization

(d) Hardware Virtualization

75. Which of the following statement does not belong to security constraints of Grid Computing?

© The Institute of Chartered Accountants of India

(a) The coordination between processors must be secure and for this there is no such policy.

(b) User password and private keys should be protected.

(c) User once authenticated, should be able to acquire resources.

(d) The code can use large number of encryptions at a time.

76. Amazon Web Service (AWS) gives its users ability to access database service without the need to install and maintain it on the pay per use basis. Which of the following instance of Cloud Computing is being used by AWS?

(a) Database as a Service

(b) Storage as a Service

(c) Network as a Service

(d) Software as a Service

77. Which of the following is not an advantage of Cloud Computing?

(a) Improved flexibility

(b) Streamline business processes

(c) Interoperability

(d) Reduce Capital Costs

78. Which of the following is not an instance of Infrastructure as a Service (IaaS) model of Cloud Computing?

(a) Backend as a Service (BaaS)

(b) Storage as a Service (STaaS)

(c) Network as a Service (NaaS)

(d) Email as a Service (EaaS)

79. Which layer of e-Commerce architecture allows the consumers to check the products available on merchant's website?

(a) Network Layer

(b) Application Layer

© The Institute of Chartered Accountants of India

(c) Database Layer

(d) Client/User Interface

80. Which business model of e-commerce supports the activities within the customer chain that generally focuses on sell-side activities of Online retailers?

(a) Business to Business model (B2B)

(b) Consumer to Consumer model (C2C)

(c) Consumer to Business model (C2B)

(d) Business to Consumer model (B2C)

81. Small BV, a newly established bank in Karnal city is providing core banking services to its customers seamlessly. From the following, identify the service which is not provided by the bank.

(a) Advances

(b) Letters of Credit

(c) Querying

(d) Deposits

82. Mr. X selected some groceries in a retail store. When he tried making the payment using his credit card, an error message displayed stating that the aggregate limit of out-standing amount has exceeded his assigned credit card limit. Identify the risk related to credit card process for which this key control has been applied resulting on the display of error message.

(a) Credit Line setup is unauthorized and not in line with the bank's policy.

(b) Masters defined for the customer are not in accordance with the Pre-Disbursement Certificate.

(c) Credit Line setup can be breached.

(d) Inaccurate reconciliations performed.

83. VV enterprises opened its Initial Public Offering (IPO) in 2017. After two years in 2019, the company earned a huge profit. In March 2019,

© The Institute of Chartered Accountants of India

the company distributed the dividend received against IPO to all its IPO holders from its bank account. Which of the following service is used by the company?

(a) Electronic Clearing Services (ECS) Debit

(b) Electronic Clearing Services (ECS) Credit

(c) Advances

(d) Remittances

84. CBS has added many features to service delivery of a bank. Identify the activity from the following that falls under its purview.

(a) On-line real-time processing

(b) Transactions are posted in batches

(c) Databases are maintained at branch level

(d) Loan processing is done at branch

85. The deployment and implementation of CBS is controlled at various stages. In which of the following stage, bank should choose the right solution considering various parameters to meet business objectives?

(a) Approval

(b) Support

(c) Selection

(d) Planning

86. ABC Ltd. is a financial company using the control 'Logging the access to sensitive data and regularly being reviewed by the management' for Information Security. Identify from the following risk for which this control is being used by company.

(a) Unauthorized data access due to Trojans.

(b) Lack of Management direction.

(c) User accountability is not established.

(d) Security breaches may go undetected.

© The Institute of Chartered Accountants of India

87. Which of the following statement best describes the concept of Money Laundering?

(a) Converting proceeds of crime and projecting it as untainted property

(b) Tax Planning as per provision of IT Act, 2000

(c) Gifting immoveable property to relatives

(d) Transferring fixed deposit to employees

88. IT Act, 2000 provides the legal recognition for transaction through any means of electronic communication. Which of the following is not computer related offence as per IT Act, 2000?

(a) Theft of confidential information in computer systems

(b) Removal, concealment, transfer, or delivery of property to prevent tax recovery

(c) Credit Card fraud

(d) Source Code theft

89. The key provisions of IT related offences are for the smooth working of bank. In purview of same, what is the primary objective of SPDI?

(a) Protecting Computer Software

(b) Securing critical Information

(c) Sensitive Personal Information

(d) Identifying sensitive Information

90. Which of the following activity risks is the computer related crime of the banking sector of India?

(a) Breaking into ATM

(b) Physical theft at branch

(c) Software piracy

(d) Altering name in demand draft

© The Institute of Chartered Accountants of India

91. In the Core Banking Systems, _____ is a service which is defined as an undertaking by a bank to the payee to pay to him on behalf of the applicant any amount up to the limit/terms and conditions specified.

(a) Guarantees

(b) Letter of Credit

(c) Granting of Advances

(d) Acceptance of deposit

92. Which of the following statement is incorrect w.r.t. Core Banking System?

(a) CBS software enables integration of all third-party applications.

(b) CBS has a common database in a central server giving a consolidated view of bank's operations.

(c) Branches function as delivery channels providing services to its customers.

(d) CBS has non-modular structure capable of being implemented in stages as per bank's requirements.

93. The Central Server of Core Banking System relates to many modules of Back-End and Front-End applications which, some of them are mentioned below.

i. ATM Switch

ii. Internet Banking

iii. Data Warehouse

iv. Branch Banking

Which of the above is not a part of front-end application?

(a) i,ii,iii

(b) ii,iv

(c) ii,iii,iv

(d) i,iii

© The Institute of Chartered Accountants of India

94. KK cooperative bank has its four branches in Pune city. Each branch confines itself to many key functions as mentioned below. Identify the option which does not fall under the key functions of branches of KK cooperative bank.

(a) End of Day (EOD) Operations

(b) Internal Authorization

(c) Quality Assurance

(d) Reviewing reports for control and error correction

95. Mr. Y has a savings account with S&N Bank. He used Internet banking services of the bank first time with the login id and password as provided by the bank to him. Immediately after the first login, he changed his password. Which of the following server would store Mr. Y's password for further logins?

(a) Web Server

(b) Application Server

(c) Internet Server

(d) Internet Banking Channel Server

96. Money Laundering is defined as the process by which the proceeds of the crime and the true ownership of those proceeds are concealed or made opaque so that the proceeds appear to come from a legitimate source. This process involves many stages as mentioned below:

i. Layering

ii. Integration

iii. Placement

Choose the correct sequence.

(a) i-ii-iii

(b) iii-ii-i

(c) ii-iii-i

(d) iii-i-ii

© The Institute of Chartered Accountants of India

97. Which of the following section of Information Technology Act, 2000 deals with punishment for cheating by personation by using computer resource?

(a) Section 66E

(b) Section 66D

(c) Section 66B

(d) Section 66C

98. In CBS environment, which of the following is one of the key components of banking business with controls?

(a) Organization Structure

(b) Planning

(c) Layering

(d) Integration

99. In CBS environment, different servers have different roles to perform. Which of the following server is responsible to host all internet related software?

(a) Proxy Server

(b) Database Server

(c) Web Server

(d) Application Server

100. Considering risks associated with CBS, _____is defined as an exposure to legal penalties, financial penalties, and material loss an organization faces when it fails to act in accordance with industry laws and regulations, internal policies or prescribed best practices.

(a) Strategic Risk

(b) Compliance Risk

(c) Market Risk

(d) Operational Risk

© The Institute of Chartered Accountants of India

101. Mr. X and Mr. Y are employees of XYZ Ltd. In the office during lunch time when Mr. Y was not on his seat, Mr. X stole the pen drive of Mr. Y containing some confidential information. Under which of the following section of Information Technology Act 2000, is Mr. X punishable?

(a) Section 66B

(b) Section 66C

(c) Section 66D

(d) Section 43

102. In case the management of an organization XYZ anticipates that the impact and probability of occurrence of risk is very low, which risk management strategy shall then be followed by XYZ?

(a) Tolerate the risk

(b) Terminate the risk

(c) Share the risk

(d) Treat the risk

103. The success of any Business Process Automation (BPA) shall only be achieved when BPA ensures certain characteristics. Which of the following is not included in those characteristics?

(a) Diligence

(b) Integrity

(c) Availability

(d) Timeliness

104. Mr. Anil is working with XYZ Company that is under the process of adopting Enterprise Resource Management (ERM) framework. He prepared a list of policies and procedures that need to be established and executed to ensure that the risk responses that management selected are effectively carried out. Which component of ERM is referred here during this activity?

(a) Risk Assessment

(b) Control Activities

© The Institute of Chartered Accountants of India

(c) Information and Communication

(d) Monitoring

105. Mr. Amit is an auditor of a company XYZ Ltd. While evaluating controls over ERP systems, he had to audit the controls which were administered through the computer center/computer operations group and the built-in operating system controls. Which of the following controls are referred here?

(a) Environmental Controls

(b) Application controls

(c) Management Controls

(d) Audit Controls

106. Mr. Chaitanya is a software developer associated with a company for which he developed application software. The developed software is needed to be installed on hard disc of every computer used by users, one by one. Which of the following application is developed by him?

(a) Integrated Application

(b) Operating System Application

(c) Installed Application

(d) Cloud based Application

107. Mr. Rajiv is an accountant of XYZ Private Ltd. Company who takes care of all the transactions made by company. He is making a voucher for transfer of fund from company's one bank account to company's other bank account. Which of the following voucher is Mr. Rajiv preparing?

(a) Contra

(b) Payment

(c) Receipt

(d) Journal

108. Which of the following statement is not correct for eXtensible Business Reporting Language (XBRL)?

© The Institute of Chartered Accountants of India

(a) XBRL runs on XML technologies such as XML schema and ensures that financial and non-financial data is tagged to form a comparable reporting format.

(b) XBRL has the capability to allow the tagging of transactions that can themselves be aggregated into XBRL reports.

(c) To publish performance information and allow straight through information processing are key features of XBRL.

(d) XBRL is an open standard reporting language which is governed by XBRL, a non-profit organization.

109. Identify from the following controls of Information System that deals with framing of high-level IT policies, procedures, and standards on a holistic view.

(a) Management Controls

(b) Environmental Controls

(c) Access Controls

(d) Physical Controls

110. Mr. Neeraj is working on a project on healthcare system where he has to perform data mining on the database of patients of last five years in ABC Hospital. The hospital provided him inconsistent data with lots of errors and missing values. He has to apply various techniques to get rid of these anomalies. Identify from the following process which he can use to get rid of these anomalies.

(a) Data Cleaning

(b) Data Selection

(c) Data Integration

(d) Data Transformation

111. The Chief sales head of the company wants to evaluate an annual sale made by sales revenue of the company's branches in different regions. Being the Sales manager of the company, Mr. Kumar is asked to prepare the spreadsheets using computer software. Which of the following software he may be working on?

© The Institute of Chartered Accountants of India

(a) Application Software

(b) Operating Systems Software

(c) System Software

(d) Asset Management Software

112. A Database Model is a type of data model that determines the logical structure of a database and fundamentally determines in which manner can data be stored, organized, and manipulated. Which of the following database model stores and organizes data in a table structure?

(a) Network Database model

(b) Hierarchical Database model

(c) Object oriented Database model

(d) Relational Database model

113. Which of the following statement is not true about Cloud Computing?

(a) Data and information can be accessed with minimal upfront spending in a pay-as-you-go approach.

(b) Getting more work done in less time with less resources are possible in cloud computing.

(c) Customers may have to face restrictions on the availability of applications, operating systems and infrastructure options.

(d) It is feasible to confine within budgetary allocations and can be ahead of completion cycle times.

114. Mr. A owns a bakery shop which is running successfully currently. He wants his business to be expanded further through online mode for which he hired a technical person Mr. X who could guide him in adopting to online business. Mr. X is supposed to give a presentation to Mr. A on technological infrastructure requirement for the proposed business. Identify the option which should not form part of his presentation.

(a) Payment gateway

© The Institute of Chartered Accountants of India

(b) Web portal

(c) Data Interchange

(d) Type of vendors

115. XYZ is a service provider company that decides to adopt Three tier client-server architecture for setting up of network architecture for a shoe making company. What would be the sequence of three tiers that are used in three-tier client-server architecture?

(a) Presentation tier, Middle tier, Database tier

(b) Middle tier, Database tier, Presentation tier

(c) Database tier, Logic tier, Client tier

(d) Client tier, Data tier, Database tier

116. Mr. Raju wants to purchase a new laptop of BBCN Company through online mode. Hence, he is checking all the products available on BBCN website. From the following layers of e-commerce architecture, identify the layer on which he is working.

(a) Application Layer

(b) Database Layer

(c) Client /user Interface

(d) Communication Layer

117. The full-scale banking solution is a scalable, integrated e-banking system that meets the deployment requirements in traditional and non-traditional banking environments with some key aspects in its architecture. Which of the following aspect is not used in Core Banking System architecture?

(a) Customer centric

(b) Regulatory Compliance

(c) Resource optimization

(d) Employees' selection

© The Institute of Chartered Accountants of India

118. Sneha purchased a new dress for her birthday online from fashionnpoint.com. She used internet banking facility by using her username and password to make the payment for her dress. Which of the following bank server will the transaction be referred to for verification?

(a) Internet Banking Channel Server

(b) Internet Banking Application Server

(c) Web server

(d) Database Server

119. Identify the full-scale Banking solution which is scalable and integrated that meets the deployment requirements in traditional and non-traditional banking environments.

(a) Financle

(b) Flexcube

(c) bankMate

(d) Finnone

120. Money Laundering is commonly used by criminals to make dirty money appear legitimate. In this context, which stage of Money Laundering involves the bank transfers between different accounts in different names in different countries making frequent deposits and withdrawals?

(a) Placement

(b) Layering

(c) Integration

(d) Financing

Answer Key

Question No.	Answer	
1	**(b)**	Identify manual processes
2	**(b)**	Deals with the core business and value chain

© The Institute of Chartered Accountants of India

3	**(c)**	Business Process Automation
4	**(c)**	Compliance
5	**(c)**	Reduced Turnaround Time
6	**(d)**	Risk
7	**(b)**	Organization chart
8	**(b)**	Meeting sales targets
9	**(c)**	Powers and duties of auditors and auditing standards
10	**(a)**	Home address
11	**(d)**	Invoicing
12	**(d)**	Design new policy format
13	**(b)**	Customer Relationship Management
14	**(d)**	Reputational
15	**(d)**	Rule 6
16	**(c)**	Terminate the Risk
17	**(c)**	Operational Risk
18	**(c)**	Exception Reporting
19	**(a)**	Control Activities
20	**(b)**	Integrity
21	**(c)**	Salary Structure of stores in-charge
22	**(b)**	Centralized Database
23	**(d)**	Enhanced Quality Costs
24	**(a)**	Communicates with user directly
25	**(b)**	Statutory Master data
26	**(d)**	Scalable
27	**(b)**	The access of the application is dependent on the speed of the internet.
28	**(a)**	Business Reporting
29	**(b)**	Online Analytical Processing
30	**(d)**	Production Planning
31	**(a)**	Cloud-based

© The Institute of Chartered Accountants of India

32	**(b)**	Receipt Note
33	**(d)**	Recording of all types of trading sales by any mode
34	**(d)**	Payment
35	**(c)**	Journal
36	**(b)**	Material Management Module
37	**(b)**	Predictive Analytics
38	**(c)**	Plant Maintenance Module involves the process of planning the production activities.
39	**(c)**	Enhancement and Upgrades
40	**(c)**	The Operating System Layer
41	**(d)**	Transaction
42	**(d)**	Physical Component Control
43	**(a)**	Primary, Random Access Memory
44	**(c)**	Objects
45	**(d)**	Hash Total
46	**(b)**	Encryption
47	**(a)**	Transposition Error
48	**(b)**	Resilience
49	**(a)**	Boundary Controls
50	**(c)**	Database Controls
51	**(d)**	Increases computational power of application software.
52	**(c)**	Java
53	**(d)**	Data Distribution
54	**(b)**	System Control Audit Review File (SCARF)
55	**(a)**	Network Administrator
56	**(b)**	Physical Access Control
57	**(b)**	Data Integration
58	**(c)**	Asset Safeguarding
59	**(d)**	It is a secondary memory.

© The Institute of Chartered Accountants of India

60	**(b)**	Hardware Independence
61	**(d)**	Chrome
62	**(a)**	Presentation Tier
63	**(a)**	Machine Learning
64	**(c)**	Application Risk
65	**(a)**	UPI App
66	**(d)**	Use Cathode Ray Tube (CRT) monitors than Liquid Crystal Display (LCD) monitors
67	**(b)**	Resource focus of Traditional commerce is on demand side whereas e-commerce focuses on Supply side
68	**(d)**	(i), (iv), (ii), (iii)
69	**(c)**	The Competition Act, 2002
70	**(d)**	API as a Service (APIaaS)
71	**(b)**	e-Mall
72	**(b)**	Buyer Aggregators
73	**(b)**	Marketing and Loyalty program
74	**(d)**	Hardware Virtualization
75	**(d)**	The code can use large number of encryptions at a time.
76	**(a)**	Database as a Service
77	**(c)**	Interoperability
78	**(d)**	Email as a Service (EaaS)
79	**(b)**	Application Layer
80	**(d)**	Business to Consumer model (B2C)
81	**(c)**	Querying
82	**(c)**	Credit Line setup can be breached.
83	**(b)**	Electronic Clearing Services (ECS) Credit
84	**(a)**	On-line real-time processing
85	**(c)**	Selection
86	**(d)**	Security breaches may go undetected.
87	**(a)**	Converting proceeds of crime and projecting it

© The Institute of Chartered Accountants of India

		as untainted property
88	**(b)**	Removal, concealment, transfer, or delivery of property to prevent tax recovery
89	**(c)**	Securing Personal Information
90	**(c)**	Software piracy
91	**(b)**	Letter of Credit
92	**(d)**	CBS has non-modular structure capable of being implemented in stages as per bank's requirements.
93	**(d)**	i,iii
94	**(c)**	Quality Assurance
95	**(d)**	Internet Banking Channel Server
96	**(d)**	iii-i-ii
97	**(b)**	Section 66D
98	**(a)**	Organization Structure
99	**(c)**	Web Server
100	**(b)**	Compliance Risk
101	**(a)**	Section 66B
102	**(a)**	Tolerate the risk
103	**(a)**	Diligence
104	**(b)**	Control Activities
105	**(a)**	Environmental Controls
106	**(c)**	Installed Application
107	**(a)**	Contra
108	**(a)**	XBRL runs on XML technologies such as XML schema and ensures that financial and non-financial data is tagged to form a comparable reporting format.
109	**(a)**	Management Controls
110	**(a)**	Data Cleaning
111	**(a)**	Application Software
112	**(d)**	Relational Database model

© The Institute of Chartered Accountants of India

113	**(c)**	Customers may have to face restrictions on the availability of applications, operating systems, and infrastructure options.
114	**(d)**	Type of vendors
115	**(a)**	Presentation tier, Middle tier, Database tier
116	**(a)**	Application Layer
117	**(d)**	Employees' selection
118	**(a)**	Internet Banking Channel Server
119	**(c)**	bankMate
120	**(b)**	Layering

© The Institute of Chartered Accountants of India

CASE SCENARIOS

1. Ind Milk Dairy is an Indian based Asia's largest dairy product company that got established in year 2014-15 that targeted a turnover of ₹ 50,000/- Crores by 2020-21. By the Financial year 2018-19, the company had achieved a turnover of ₹ 33,150/- Crores. The Company procures milk through various collection centers created at the level of different villages state-wise. Each collection center is run by co-operatives created in each district of the state. The total members of these co-operatives are more than 1.5 Crores as on 31st April 2020. Other than retail sales, few other major revenue sources of the company are as follows:

   - Department of Defence, Government of India
   - Corporate Customers
   - Export Customers

   To achieve the target company's turnover of ₹ 50,000/- Crores by 2020-21; Board of Directors of the company decides a two-prong strategy - **Business Strategy** and **System Strategy** which are as follows.

   The **Business Strategy** includes the following:

   - Launch new products.
   - Get into new markets for existing products.
   - Increase per capita consumption of products in existing market.

   The **System Strategy** includes the following:

   - Company needs to create infrastructure that could cater to ever changing needs of business. This includes robust network infrastructure as well as database configuration also.
   - The proposed database structure needs to cater to needs of business and to store complex data like identification of animals through their images, health-card system etc.
   - Creates a system to keep track of target on monthly basis.

© The Institute of Chartered Accountants of India

- At village level, Company shall install a computer system at each milk collection center. These systems shall be connected to main server of the company. There are 50,000 villages to be covered.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 1.1. to 1.5.

1.1. The company Ind Milk Dairy decides to have a database structure where each member of the district level cooperative society shall be part of database defined as "OWNER". Each Owner record shall have images of their milk giving animals with its health cards. Identify the best database structure the company may use to store such complex data.

(a) Hierarchical Database Model

(b) Network Database Model

(c) Object Oriented Database Model

(d) Relational Database Model

1.2. The company Ind Milk Dairy decides to have a system to track its target on monthly basis. This can be achieved using _____.

(a) Big Data

(b) Artificial Intelligence

(c) Management Information System

(d) Knowledge Management System

1.3. The stakeholders of the company Ind Milk Dairy requires updated information regarding the availability and management of the milk for which available at various centres of the company. Therefore, the company decides to have systems in its collection centres at village level that requires updating of data into central server in online/real time basis. This will improve _____business cycle of the company.

(a) Order to Cash (O2C)

(b) Procure to Pay (P2P)

© The Institute of Chartered Accountants of India

(c) Raw Material to Finished Goods

(d) Debtors Management

1.4. The Ind Milk Dairy company's decision to increase its turnover to ₹ 50,000/- crores by 2020-21 is a strategic decision. Which ERP functional module supports this type of decision making?

(a) Project Management

(b) Sales and Distribution

(c) Financial Accounting

(d) Materials Management

1.5. In purview of above case scenario, the company's central server shall keep the data of each milk collection center and shall also perform the task of backup, archiving and recovery. Which of the following technology can be useful in this case?

(a) Storage Virtualization

(b) Network Virtualization

(c) Hardware Virtualization

(d) Software Virtualization

Answer Key

Question No.	Answer
1.1.	**(c)** Object Oriented Database Model
1.2.	**(c)** Management Information System
1.3.	**(b)** Procure to Pay (P2P)
1.4.	**(c)** Financial Accounting
1.5.	**(a)** Storage Virtualization

2. M/s. XY & Co, the IS auditors of Mahadevi Bank, a multi-state scheduled bank operating in Mumbai have issued a comprehensive systems and control audit report, of which points of special interest to the audit committee are extracted and put forth as hereunder:

© The Institute of Chartered Accountants of India

- M/s. BA Child Welfare Association is an NGO that has been operating from Bangalore since October 2016. It had opened a current account with the Mahadevi Bank's Panjim branch on 12th April 2017. The auditors noted that several small value cash deposits have been made from NGO's Bank account to a current account since then and the ledger summation is being ₹ 29.49 Lakhs for the year 2017-18. There have been two instances of high value RTGS (Real-Time Gross Settlement) transfers from this account to another account of a nationalized bank's branch located at Delhi, the first executed for ₹ 12 Lakhs on 07th March 2018 and the second for ₹ 10 Lakhs on 29th March 2018. The Bank Manager initiated an email on 29th March 2018 to NGO's email-id available with the branch, requesting for the details of the parties to whom the transactions were initiated and the reason for the same. The NGO's Bangalore office replied that though it cannot share specific party details, the transactions were initiated for fund remittances to another Delhi based NGO having similar philanthropic purposes. The auditors suspect this as a case of money laundering.
- The auditors recommended that the bank should initiate integration to BHIM (Bharat Interface for Money) application to provide better services to its account holders.
- The auditors suggested that a separate automated control report to be generated in bank for each day-end closure which will total all the centralized printed cheque book count and cross-check the printed cheque book dispatch register.
- The Auditors observed that Letter of Credits (LCs) are currently set in the bank to auto renew on expiry date.
- The auditor found that there are five thumb impression based biometric units that are connected to terminals but are not working.

© The Institute of Chartered Accountants of India

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 2.1. to 2.6.

2.1. For monitoring of suspected money laundering within a banking environment, identify which type of nature and time frame of the records the bank needs to maintain.

(a) All transaction details of the NGO for five years starting from 12th December 2017.

(b) All transaction details of the NGO for five years starting from 29th March 2018.

(c) All transaction details of the NGO for five years starting from 07th March 2018.

(d) All transaction details of the NGO and other beneficiaries for eight years starting from 07th March 2018.

2.2. Which of the following legal implications will be entailed on the denial by the M/s BA Child Welfare Association for not sharing third party specific information?

(a) It will be treated as a case of proven money laundering, and the bank can immediately suspend the operations of the account.

(b) Invoking of Section 13 of the PMLA that states of penalty in the form of fine ranging from ten thousand to one lakh per failure to report on the bank.

(c) The non-compliance of Know Your Customer (KYC) Process.

(d) The NGO is right not to share information as it is private information. It has explained the nature of the transactions being a philanthropic entity and that ensures compliance with AML guidelines from RBI.

2.3. The IS auditors of the Mahadevi bank recommended that the bank should initiate its integration with BHIM application to provide better services to its account holders. Which of the

© The Institute of Chartered Accountants of India

following option, in the context of BHIM application, is not correct?

(a) BHIM application requires the account holder to create a VPA (Virtual Payment Address) or UPI (Unified Payment Interface) Id.

(b) BHIM application can be used for bank transfers even with non-UPI based platform.

(c) BHIM application is built on the immediate payment infrastructure, and hence any person can transfer funds between two bank accounts instantly.

(d) BHIM application can be used by both United Payment Interface (UPI) users as well as non-UPI users.

2.4. The auditor's suggestion of a separate control report is generated in Banking System for each day-end closure that will provide the total of all the centralized printed cheque book counts. Which of the following control will solve the purpose as suggested by auditors?

(a) Input Validation control

(b) Batch control

(c) Data coding control

(d) Data Validation control

2.5. Identify the appropriate risk management strategy from the following on the finding of the auditor on 'The Letter of Credits (LCs) getting auto renewed on the expiry date'.

(a) Eliminate the risk by removing these LC records.

(b) Mitigate the risk by transferring the LCs back to the suppliers.

(c) Tolerate the risk by ignoring the risk as these LCs will get expired.

(d) Accept the risk and make adequate provision in the books of accounts till the expiry date.

© The Institute of Chartered Accountants of India

2.6. The auditor's observation that having five non-operational biometric thumb impression units would be an indication of having a control lapse in an ERP module. Identify the module in which the lapse could have occurred.

(a) Human Resource Module

(b) Controlling Module

(c) Credit and Risk Module

(d) Customer Relationship Management module

Answer Key

Question No.	Answer
2.1.	**(a)** All transaction details of the NGO for five years starting from 12th December 2017.
2.2.	**(c)** The non-compliance of Know Your Customer (KYC) Process.
2.3.	**(b)** BHIM application can be used for bank transfers even with non-UPI based platform.
2.4.	**(b)** Batch Control
2.5.	**(c)** Tolerate the risk by ignoring the risk as these LCs will get expired.
2.6.	**(a)** Human Resource Module

3. Kartikeyan LLP (KKLP) Ltd. is an online start-up registered in 2018 under the URL www.onlinescrap.com with the intention of bringing together small entrepreneurs engaged in scrap sale of core metals. It has garnered tremendous response with almost five thousand small vendors registered on its site. The management now wants to upgrade the platform and roll out a partnership model where premium vendors can buy and later also sell core scrap metals under the brand name of KKLP Ltd. on the website www.onlinescrap.com to external parties as well as registered vendors. The management defined following parameters for the growth of company:

© The Institute of Chartered Accountants of India

i. An Order to Cash (O2C) process implementation which will start with the tracking of availability of required scrap to receiving payments on tender basis.

ii. Decision to either go for an own ERP or to sign an SLA (Services Level Agreement) with a cloud service provider who will be required to host the entire portal on its cloud servers.

iii. Hiring of an IT manager who will help to create and maintain various control aspects.

iv. Defining proper IT related policies.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 3.1. to 3.5.

3.1. In purview of above case scenario, which of the following e-market business model is implemented by the management of KKLP Ltd.?

(a) E-auction

(b) Buyer Aggregator

(c) Virtual Community

(d) E-Shop

3.2. KKLP Ltd. is in the process of implementing 'Order to Cash (O2C)' cycle that involves following sub-processes:

i. Order booking

ii. Order fulfilment

iii. Invoice generation

iv. Delivery Note

v. General Ledger Accounting

vi Collections

Which of the following represents the correct sequence flow of sub-processes for O2C, in your opinion, for the present scenario?

© The Institute of Chartered Accountants of India

(a) i – ii – iii - iv – v – vi

(b) ii – iii – iv – v – vi - i

(c) i – ii – iv – iii – vi – v

(d) ii – iii – v – iv – vi – i

3.3. Which of the following clause will not be a part of the KKLP Ltd.'s Service Level Agreement (SLA) in case the company opts to hire the services provided by a Cloud service provider?

(a) The responsibility of the service provider to maintain data connectivity 24x7.

(b) The responsibility of the service provider for providing alternative data recovery plan.

(c) The rights and responsibilities of both KKLP and service provider towards the SLA.

(d) The responsibility of the service provider for storage of data and data security.

3.4. The management of KKLP requires its IT manager to generate an exception report on daily basis for those vendors who have placed orders in excess to their permissible account limits and to trigger a lock on their accounts from further operations, which can be unlocked only by remitting funds to the extent of the excess in limit. This activity can be done by the IT Manager by _____.

(a) introducing a detective control for monitoring limits versus order balances at account level for each vendor.

(b) introducing a preventive control for past due accounts report on each day end basis at account level for each vendor.

(c) introducing a detective control for variance reporting and auto emailing system to all exception flagged vendors.

© The Institute of Chartered Accountants of India

(d) introducing a preventive control based on hash totals between permissible account limits and order placed values where the excess will be reported for hash total violation rules.

3.5. The IT manager of KKLP Ltd. is responsible to ensure that no one is permitted to download, copy or extract any information from its website. However, a premium registered vendor Mr. Amit could manage to copy and replicate some vital information from the company's website. Under which Section of IT Act, 2000 can Mr. Amit be held liable?

(a) Section 66D

(b) Section 43A

(c) Section 43

(d) Section 65

Answer Key

Question No.	Answer	
3.1.	**(b)**	Buyer Aggregator
3.2.	**(c)**	i – ii – iv – iii – vi – v
3.3.	**(a)**	The responsibility of the service provider to maintain data connectivity 24x7.
3.4.	**(a)**	introducing a detective control for monitoring limits versus order balances at account level for each vendor.
3.5.	**(c)**	Section 43

4. XYZ Ltd. started as a small business company that in its early years; sold homemade organic soaps, serums, face washes and creams. With time, the company added more beauty products in its list and launched its e-business through website. All the business processes of the company are automated and therefore all the related data is stored in various database tables are managed at the backend in database. The company hired more employees to promote and sell its products across the country and initiated selling its products through

© The Institute of Chartered Accountants of India

online mode to reach customers worldwide. Subsequently the company has grown as a big brand in the competitive market and has started receiving orders from worldwide customers.

To make optimal use and quick sharing of data, the company started keeping all its data on Google cloud. Now the marketing personnel and salespersons of the company have readily available data related to inventory and online orders anywhere, anytime. Also, they can update their status and targets achieved on company's website instantly. Initially, the company got 15GB free space on cloud, but in due course of time, the demand for the data storage increased, so it subscribed for more space on cloud. The company is satisfied with the cloud service as it isolates the company completely from server failures and needs to pay for only amount of storage it uses.

The company uses digital mode of payment for both the customers and suppliers and uses modules of Enterprise Resource Planning system. The organization has some controls in the system that restricts unauthorized entry into the premises. Some controls also have been designed to detect errors, omissions and malicious act occurrence and report that occurrence. The company also appoints an IS auditor to ensure the completeness, accuracy, and validity of data.

On a certain day, the IT Head of a team of 10 members of the company, Mr. Sushil observed that while accessing the home page of company's website; some content depicting children in sexually explicit act was available on the website's home page. He immediately deactivated the website and informed the management of the company about the incident, which in turn reported about this to cyber security cell. On investigation, it was found that Mr. Biswas, one of the team members of IT Department, out of anger and desperation, had hosted the same on the company's website so as to bring bad repute to the company.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 4.1. to 4.5.

4.1. Google Cloud frees XYZ Ltd. completely from the issues related to server in terms of its maintenance, failure, storage capacity

© The Institute of Chartered Accountants of India

etc. Which of the following feature of Cloud Computing does it represent?

(a) Virtualization

(b) Reliability

(c) Resiliency

(d) Scalability

4.2. In purview of above case scenario, identify the kind of cyber-attack faced by XYZ Ltd.

(a) Web defacement

(b) Denial of Service

(c) Cyber Terrorism

(d) Phishing

4.3. According to the case scenario, what could be the main objective for which an IS auditor has been appointed by XYZ Ltd.?

(a) Asset Safeguarding

(b) Data Integrity

(c) System Efficiency

(d) System Effectiveness

4.4. XYZ Ltd. uses Enterprise Resource Planning System which integrates all the modules with Financial and Accounting System of the organization. Which of following point is not valid with the integration of modules?

(a) Master data across all the modules must be same and must be shared with other modules whenever required.

(b) Common transactions must be shared with other modules whenever required.

(c) There is no need of separate voucher types to be used for each module.

© The Institute of Chartered Accountants of India

(d) Figures and transaction may flow across the department.

4.5. In purview of above case scenario, under which Section of Information Technology Act 2000, is Mr. Biswas punishable?

(a) Section 65

(b) Section 67

(c) Section 43

(d) Section 67B

Answer Key

Question No.	Answer	
4.1.	**(c)**	Resiliency
4.2.	**(a)**	Web Defacement
4.3.	**(b)**	Data Integrity
4.4.	**(c)**	There is no need of separate voucher types to be used for each module.
4.5.	**(d)**	Section 67B

5. PQR Ltd. is a grocery store that has multiple outlets in various cities across the country. It has automated all its data processing activities and maintains its entire data in an integrated data center. All data processing activities, servers, backup, and recovery is managed by IT department of PQR Ltd. All the devices are connected to company's network and communicate with each other using Unique Identification Number.

The regular customers of grocery store have been provided a membership number and a membership card. When a purchase is made by a customer; all the details related to purchase are recorded in database against that membership number. As a part of promotional campaign activity, the PQR Ltd. offers various discounts and schemes to draw attention of new customers and provides satisfactory services to its existing customers. These schemes are developed by top management of PQR Ltd. based on purchase patterns, market trends and association of purchases done by customers. The company is

© The Institute of Chartered Accountants of India

using software for this which provides the details that enable the top management in efficient decision making.

PQR Ltd. maintains all the data in common database. The setting of parameters and menu options to be displayed in the software is done first time when the software is installed. A specific menu option can be viewed or activated by authorized employees only. These access restrictions are applied in software so that no user can access data which he is not authorized to use. This is done to maintain the security of the system.

The IS auditor appointed by the management, reviews the information system, and recommends using real time audit which may help the company to close the gap between occurrence of transaction and review of transaction. This real time audit will also help in timely, comprehensive, and cost-effective audit of the transactions. Based on the recommendation of IS auditor, the company implements the concurrent audit technique which tends to review all the updates in database and replica in the system. It also traps exceptions in the database management system.

Management of PQR Ltd. establishes the formal mechanisms to monitor the working of software on regular basis. The company finds some issues in processing and connectivity in the software. To resolve these problems, the company modifies the programs according to various reliable processing requirements. Latest changes made in the software are according to upgradation of Operating system from Windows 7 to Windows 10 in all its systems because some of the modules of software were not compatible with windows 7.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 5.1. to 5.5.

5.1. Which type of maintenance is done by the PQR Ltd. while upgrading the Operating System from Windows 7 to Windows 10?

(a) Perfective Maintenance

(b) Corrective Maintenance

© The Institute of Chartered Accountants of India

(c) Adaptive Maintenance

(d) Preventive Maintenance

5.2. To remain competitive in the market; PQR Ltd. needs to extract the relevant information regarding the purchase patterns and market trends from the market's humongous numerical data containing quantifiable variables. It also helps PQR Ltd. to offer various discounts and schemes time-to-time. Which of the following methodology of Data Analysis can be used to identify such a trend?

(a) Exploratory Data Analysis

(b) Quantitative Data Analysis

(c) Qualitative Data Analysis

(d) Confirmatory Data Analysis

5.3. Assume that you are appointed as an IS auditor of PQR Ltd. to review the security mechanism of its systems. While performing your duty, at which level of Information System will you review the controls to ensure that users can see only particular menu options according to job assigned to them?

(a) Master

(b) Transaction

(c) Risk

(d) Configuration

5.4. In PQR Ltd., the customers have been provided a membership card with a membership number and all purchase details of customer are recorded in database against that membership number. Identify the incorrect statement from following that does not support the above comment.

(a) Membership number is unique for each customer.

(b) In company's database, Membership number represents a primary key in the member database table.

© The Institute of Chartered Accountants of India

(c) Membership number can be same for two customers.

(d) Membership number can be used to check for all the transactions done by the customer.

5.5. According to the case scenario, which audit tool has been implemented by company to trap exceptions in its Database Management System?

(a) Audit Hook

(b) Continuous and Intermittent Simulation

(c) Audit trail

(d) Integrated Test Facility

Answer Key

Question No.	Answer	
5.1.	**(c)**	Adaptive Maintenance
5.2.	**(b)**	Quantitative Data Analysis
5.3.	**(d)**	Configuration
5.4.	**(c)**	Membership number can be same for two customers.
5.5.	**(b)**	Continuous and Intermittent Simulation

6. XYZ is a life insurance company which offers various products keeping in mind the different needs of the people. It has more than 100 branches in India and all branches are computerized. The company has a wide variety of insurance plans like protection, retirement, health, saving and investment, child education and travel insurance plans etc., which cater to the risk management and insurance requirements of individuals as well as groups. Each plan offers adequate risk coverage at low rates through a simple application process. It offers rewards for healthy lifestyle at relatively low premium and certain tax benefits as per the applicable Tax Laws.

With the goal to grow more, the company has given the facility to its customers to purchase its plans online. All the data related to investors, claims, policies, and marketing agents are stored in a

© The Institute of Chartered Accountants of India

database which can be accessed online. All data and website of the company are hosted on a cloud. The performance of the XYZ insurance company about planning, implementation and monitoring of computerization process has been reviewed by an IS auditor Mr. Anil for past 5 years. The audit of Data Centre and Information System department was conducted with a view to obtain a reasonable assurance on accuracy and consistency of data. Existence and adequacy of IT controls and network controls are also reviewed.

The audit was conducted at 12 various branches selected on random basis. The audit was performed against various frameworks, standards, laws, guidelines, and policies relevant to insurance business as well as IT. Audit findings and recommendations of Mr. Anil that were reported to Management are as follows:

i. All computers should be provided indirect network connections with other networking services or servers.

ii. There is a need to make huge volumes of data available from cloud at peak time.

iii. The controls that ensure the availability of system in case of data loss due to unauthorized access and equipment failure etc. are not adequate.

iv. There is a need to establish a mechanism to transfer the data in an encrypted form so that it would be safe and other users who are not authenticated cannot access that data.

v. Mr. Ajay dishonestly used electronic signature of the branch manager of Z branch of Company and passed the false claim of one of the buyers and allowed him to withdraw the funds. The legal action must be taken against him.

vi. Special audit routines are advised to highlight and notify suspicious records with frequent change in name and address so that the system becomes less vulnerable to frauds like funds withdrawal because of false claims.

© The Institute of Chartered Accountants of India

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 6.1. to 6.4.

6.1. The IS auditor Mr. Anil had found that Mr. Ajay dishonestly made use of electronic signature of the branch manager of Z branch of the company and passed the false claim of one of the buyers. Under which Section of IT Act, 2000 is Mr. Ajay punishable?

(a) Section 66B

(b) Section 66C

(c) Section 66D

(d) Section 43

6.2. What kind of server has been recommended by IS auditor to provide networking services to all computers of XYZ company?

(a) Proxy Server

(b) Web Server

(c) Database Server

(d) Application Server

6.3. In purview of above case scenario, which type of audit routines can be recommended by IS auditor Mr. Anil to avoid withdrawal of funds due to false claims?

(a) Continuous and Intermittent Simulation

(b) Snapshot

(c) System Control and Review File

(d) Audit Hook

6.4. The company started using wearable smart watches and bands for its customer to investigate the medical condition of individual who wishes to buy life insurance. In this pretext, identify the risk management strategy adopted by the company.

(a) Tolerate the risk

© The Institute of Chartered Accountants of India

(b) Terminate the risk

(c) Transfer the risk

(d) Treat the risk

Answer Key

Question No.	Answer
6.1.	**(b)** Section 66C
6.2.	**(a)** Proxy Server
6.3.	**(d)** Audit Hook
6.4.	**(b)** Terminate the risk

7. ABC is a car rental company running its business through m-commerce. Its mobile app is very popular amongst the people who can book a car online through it and the company is earning a good profit. It collects the information of large number of taxi providers, makes them its partner and sells their rental services to large number of buyers under its name. The company follows its employees' health and safety regulations and pays all the taxes on time.

Because of the growing competition in the market, the ABC Company wants to use some technology to stay in sustainable position in comparison to others and to reveal its capabilities and market conditions so that it can take good strategic and tactical decisions to maintain its repute in the market.

The company uses controls to protect its data and information on its private network from the external as well as internal network by filtering the information, thus allowing only authorized traffic to pass through the network.

Despite of all its functioning and care, a case has been reported where two drivers of the company had transported the cash of ₹12 lakhs from Delhi to Jaipur without any bill or proof while taking the passengers in the company's cab without the notification of the company's higher authority. Hence, there is a need of legal action against them.

© The Institute of Chartered Accountants of India

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 7.1. to 7.5.

7.1. Under which section of Prevention of Money Laundering Act, the two reported drivers of the ABC Company are liable?

(a) Punishment of cheating by personation

(b) Punishment to give false information

(c) Offence of Money Laundering

(d) Punishment of abetment

7.2. In purview of above case scenario, ABC Company wants to use some technologies to stay in sustainable position. Which technology can help the company to make well-informed business decision and be the source of competitive advantage?

(a) Artificial Intelligence

(b) eXtensible Business Reporting Language (XBRL)

(c) Internet of Things

(d) Business Intelligence

7.3. According to case scenario, what kind of business risk ABC Company tries to avoid by giving health safety facilities to employees?

(a) Regulatory risks

(b) Financial risks

(c) Hazard risks

(d) Technology risks

7.4. In purview of above case scenario, what kind of business market model is being followed by ABC Company?

(a) E-shop

(b) Buyer Aggregator

© The Institute of Chartered Accountants of India

(c) Virtual community

(d) E-market

7.5. What kind of network access controls are being used by the ABC Company to ensure network security?

(a) Firewall

(b) Call back device

(c) Encryption

(d) Enforced Path

Answer Key

Question No.	Answer
7.1.	**(c)** Offence of money laundering
7.2.	**(d)** Business Intelligence
7.3.	**(a)** Regulatory risks
7.4.	**(b)** Buyer Aggregator
7.5.	**(a)** Firewall

8. ABC is a multi-speciality hospital that provides best known healthcare facilities to large number of patients. The hospital has three more branches in three different states. All the branches record their related data including personal details and other comprehensive medical history of the patient and the medical services being provided to the patient such as investigations, diagnoses, treatments, follow up reports and important medical decisions. These branches have been managing all the operations related to administrative, financial, clinical aspects and health care facilities manually in their respective branches.

Lately, the management of the hospital wants to streamline and optimize all its business operations in all its branches. After consulting the experts, the management decides a strategy to implement a comprehensive, integrated, and specialized system which is designed to manage the administrative, financial, and clinical aspects of hospital and healthcare facilities of all its departments in single software and maintains a centralized database for all the relevant data.

© The Institute of Chartered Accountants of India

- This proposed system is planned to be developed in-house during which an IS Auditor Mr. Kamal is responsible to provide his valuable inputs and supervise the development and working of the system from auditor's aspects.
- The proposed software or system would make available up-to-date data that bring workflow efficiency in hospital management.
- All its branches would be interconnected with each other through intranet and share data with each other.
- Also, few authorized administrative staff could track the status of funds, patients' records, doctors' details etc. very easily just on the click of a button.
- Each employee shall have a unique login Id and certain access privileges depending on his/her job profile and designation.
- The proposed software has facility of electronic funds transfer for its various stakeholders like vendors, patients, staff, and doctors to provide them more satisfaction.

With the implementation of the new system, the security of the confidential data of its patients that is being stored, processed, and maintained in the centralised database is a serious concern for the top management of the hospital. The hospital is also facing frequent connectivity and security issues in its intranet due to which the data transmission between its branches has been getting disrupted. The hospital management considers various risks associated with this, including cyber risks and infringe of various IT laws and also plans to out appropriate controls in place to combat these speculated risks. The controls are expected to ensure that firstly the risks do not materialise and if at all the risks become real, their impact should be minimal on hospital's operations and services. It also keeps a check that no unlawful activity can take place.

© The Institute of Chartered Accountants of India

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 8.1. to 8.5.

8.1. Which strategy is used by ABC hospital that streamlined and optimized its operations?

(a) Database Management System

(b) Business Process Reengineering

(c) Business Process Automation

(d) Bring Your Own Device

8.2. Identify the control mechanism that has been implemented by ABC hospital to restrict its system access to authorized users only so that they can access only that information which is required by them to perform their duties?

(a) Mandatory Access Control

(b) Rule Based Access Control

(c) Privacy policy

(d) Role Based Access Control

8.3. ABC hospital considers various controls related to system automation with the main objective of securing the confidential data of its stakeholders. In the context of ABC Hospital, which of the following is not included in Sensitive Personal Data Information?

(a) Patients' history

(b) Credit Card Details

(c) Hospital's Healthcare Services

(d) Staff details

8.4. In purview of above case scenario, identify the type of audit which Mr. Kamal is/can be involved in.

(a) Post Implementation Audit

(b) Concurrent Audit

© The Institute of Chartered Accountants of India

(c) General Audit

(d) Control Audit

8.5. In your opinion, which of the following is a secondary process of ABC hospital?

(a) Recruitment and Staffing

(b) Management of infrastructure

(c) Strategic Planning

(d) Budgeting

Answer Key

Question No.	Answer
8.1.	**(c)** Business Process Automation
8.2.	**(d)** Role Based Access Control
8.3.	**(c)** Hospital's Healthcare Services
8.4.	**(b)** Concurrent Audit
8.5.	**(a)** Recruitment and Staffing

9. HAK Systems Private Limited (HAKSPL) has two distinct business lines – viz. Engineering Services and Cloud-based server solutions. The Chief Operating Officer (COO) observed that the company is facing many problems by keeping data on disparate systems which now needs to be centralized. As a preliminary exercise, he prescribed following operational rules which are as under:

i. Central database for the engineering business line to be modelled on a relational database model deploying RDB - Oracle. This software can be installed on each system to maintain the database.

ii. The rules pertaining to a sale invoice is written as:

a. Invoice Amount: Primary Key

b. Invoice Date: Attribute

c. Product Name in Invoice: Relation

© The Institute of Chartered Accountants of India

iii. Access rights are to be well defined and implemented.

iv. Running a backup procedure each day at 22:00 hours.

v. Internally created ERP software to be deployed, which will be efficient in terms of cost and performance.

vi. The COO wants to implement Voice over Internet Protocol (VoIP) for efficient time management in terms of call recording, custom caller ID, or voicemail to e-mail etc.

vii. Penalty to be enforced on any employee who misuses company data stored in the company servers and computers.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 9.1. to 9.5.

9.1. In context with the case scenario, what do you think about the statement that 'The access rights are defined on user preference basis'?

(a) False, as access rights are defined on need-to-know basis only.

(b) False, as access rights are defined on need to know and need to do basis.

(c) False, as access rights are defined on need to know and compliance basis.

(d) True, as access controls are defined on user preference and utility basis.

9.2. Which control is adopted in the case of HAKSPL running a backup procedure each day at 22:00 hours?

(a) Preventive Control

(b) Corrective Control

(c) Detective Control

(d) Application and Monitoring System Access Control

9.3. One of the business lines of HAKSPL is that of Cloud-based server solutions. There exists several pros and cons of using

© The Institute of Chartered Accountants of India

Cloud based services vis-à-vis Installed Applications. Identify the incorrect statement in this context.

(a) Installation and maintenance of Installed application software takes lot of time and efforts as compared to Cloud-based application.

(b) The Capital Expenditure (CAPEX) spent for an installed software application will be higher than the CAPEX for a cloud-based application.

(c) The access of cloud-based applications is based on the speed of internet which is not the case in case of Installed applications.

(d) As Service Level Agreements (SLAs) provide details of backup and disaster recovery alternatives, the data security is easier in Cloud based application as compared to the installed application software.

9.4. HAKSPL has Cloud based server solution business line. As per suggestion of the COO, which of the following Service Model of cloud computing will be used in VoIP?

(a) Platform as a Service (PAAS)

(b) API as a Service (APIaaS)

(c) Software as a Service (SaaS)

(d) Communication as a Service (CaaS)

9.5. Referring to the IT Act 2000, the COO suggested the penalty for a person who extracts or copies any data from the computer system of the company without prior approval. What is the penalty defined under which section of IT Act, 2000 for such an offence?

(a) Imprisonment for a term upto 3 years or with penalty upto ₹ 5 lakh or with both under Section 66.

(b) Imprisonment for a term upto 5 years and with penalty upto ₹ 5 lakh under Section 43A.

© The Institute of Chartered Accountants of India

(c) Either imprisonment for a term upto 3 years or with penalty upto ₹ 10 lakh under Section 66.

(d) Imprisonment for a term upto 5 years and penalty upto ₹ 3 lakh under Section 43A.

Answer Key

Question No.	Answer	
9.1.	**(b)**	False, access controls are defined on need to know and need to do basis.
9.2.	**(b)**	Corrective Control
9.3.	**(d)**	As Service Level Agreement (SLA) provides details of backup and disaster recovery alternatives, the data security is easier in Cloud based application as compared to the installed application software.
9.4.	**(d)**	Communication as a Service (CaaS)
9.5.	**(a)**	Imprisonment for a term upto 3 years or with penalty upto ₹ 5 lakh or with both under Section 66.

10. Small Bank Limited (SBL), Bhopal (MP) is registered as a Small Finance Bank (SFB) with Reserve Bank of India (RBI), New Delhi which was provided license under the Government of India's initiative to promote financial inclusion. SBL has started operations in April 2018 and has 100 branches spread across three states including Madhya Pradesh, Rajasthan and Tamil Nadu. SBL balance sheet as on 31/03/2020 shows following key performance parameters.

1. Advances: ₹ 550/- Crores (75% in category of agricultural Advances)
2. Gross NPA (In %): 2.5%
3. Net NPA (In %): 0.5 %
4. Deposits under CASA Accounts: ₹ 1,000/- Crores
5. Number of CASA account holders: ₹ 2,50,000 Lakhs
6. Number of Employees: 450

© The Institute of Chartered Accountants of India

ISSUE

SBL started their business operations immediately after getting the RBI License. They started using a Banking ERP by the name SmlCBS (Small Core Bank Solution System), launched by a company named VBank Limited (VBL), Pune (Maharashtra) which has been selling its products to various co-operative banks across India since 2005.

The software was purchased by SBL bank without going through the formal process of benchmarking the software to bank's strategic and future business needs and launched its operations with lot of publicity and fanfare. SBL Board had organized a public launch function for the new software by inviting IT ministers of all three states where bank has its operation.

Lately an article in a National Daily newspaper got published that claimed that due to adoption of SmlCBS, there has been miscalculation of interests on deposits of account holders' saving bank accounts. The article highlighted the details of few account holders of bank and published a detailed report. The key facts published were as follows:

	Example 1	**Example 2**
Name of Customer	Mr. X, Satna (MP)	Mr. J, Salem (Tamil Nadu)
The newspaper published the account statement for month of ___.	June 2018	July 2018
Interest credited by bank	₹ 150.70	₹ 3,825.20
Interest as per calculation	₹ 150.75	₹ 3,825.25

The newspaper article ended by stating that bank has 2,50,000 account holders. If each account holder loses ₹ 0.05 (Five Paisa) each month, that means bank is gaining and transferring ₹ 12,500/- per month to an authorized account thereby meaning profit of ₹ 1,50,000/- per year.

MANAGEMENT ACTION ON ISSUE

As soon as the matter came in public domain, the management of SBL realized that some swift action is needed on urgent basis. SBL board

© The Institute of Chartered Accountants of India

called for a high-profile meeting and discussed the matter. At the end of the meeting, the management took firm decision to get the bank's system audited by IS Auditors. Subsequently, Mr. Aman was hired to conduct the audit which he completed and submitted his report with following observations:

i. Many important reports like Asset Liability Management (ALM), Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR) reports are not being provided by the SmlCBS.

ii. SmlCBS does not have capability to add a new report that may be needed in future.

ii SmlCBS does not have any disaster recovery plan.

iii SmlCBS does not provide mobile banking facility.

Mr. Aman recommended the management of SBL Bank to procure ne Core Banking Solution. The board immediately decided to change the software. SBL this time went through the due process of software selection and implemented new software.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 10.1. to 10.4.

10.1. The implementation of SmlCBS in SBL did not involve any formal process whereas the CBS implementation needs to be controlled and monitored. Which aspect of CBS deployment has critically been compromised in this situation primarily?

(a) Support

(b) Selection

(c) Planning

(d) Testing

10.2. In purview of above case scenario, the published key facts in the newspaper represented a fraudulent way of interest calculation which was due to inherent weakness in system. This would be classified as a _____.

(a) Risk

© The Institute of Chartered Accountants of India

(b) Vulnerability

(c) Threat

(d) Impact

10.3. The newspaper national daily pointed the error in interest calculation where each account holder loses ₹ 0.05 (Five Paisa) each month. It is most likely to be classified as ____.

(a) Spoofing

(b) Bomb

(c) Piggybacking

(d) Rounding Down

10.4. Mr. Aman's report highlighted that SmlCBS does not have any disaster recovery plan. In case of disaster, the bank may be subject to grave risk. These types of risk are addressed through having _____.

(a) Data Management Control

(b) Programming Management Control

(c) System Development Control

(d) Security Management Control

Answer Key

Question No.	Answer
10.1.	**(c)** Planning
10.2.	**(b)** Vulnerability
10.3.	**(d)** Rounding Down
10.4.	**(d)** Security Management Control

11. LMN Company manufactures home decorative products since 2006. However, over the past few years, rising manufacturing costs have significantly eroded the company's operating profit margins. Currently,

© The Institute of Chartered Accountants of India

the machined manufacturing process and manual labour process represent 30% and 70% of the total production costs, respectively.

To combat this negative operating trend, company's management hired ENY Company, a consulting firm to consider both Business Process Management and Business Process Reengineering and to assess the benefits, risks, and control objectives associated with the company.

After performing due diligence, the consulting firm recommended a Business Process Management (BPM) plan that involved cutting 10% of the production workforce over the next three years and replacing 15% of the manual production process with newly designed machines.

The firm also completed an analysis on Business Process Reengineering (BPR) plan that would eliminate 80% of the current production workforce over the next three years and fully automate the production process over cloud server except for the Quality control function and packaging supervision, along with adoption of E-commerce environment and implementation of information system to integrate all the functions. Upfront cost to implement the Business Process Reengineering program is more significant than the BPM.

The ENY Company submitted both the recommendations to LMN's management, highlighting the recommendations for general controls for computerized systems and other IT related Internal controls, who must decide whether incremental change or radical change is more appropriate given the upfront costs to execute the plans and the expected annual cost savings associated with each plan.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 11.1. to 11.4.

11.1. During the Board meeting of LMN Company, the management reviewed both the plans submitted by ENY Company. and noticed that unlike BPR, the business process management works on 3E's for business process. Which of the following does not belong to this category?

(a) Execution

© The Institute of Chartered Accountants of India

(b) Effectiveness

(c) Efficiency

(d) Economy

11.2. The management of LMN Company would like to implement overall business management systems with common database to integrate all functional areas within the company and allow information exchange and collaboration among all parties involved in business operations. Identify from the following the most effective system for this application.

(a) A Decision Support System

(b) An Executive Information System

(c) An Office Automation System

(d) An Enterprise Resource Planning System

11.3. ENY Company recommended general controls for successful implementation of IT Systems in LMN Company Which of the following statement represents an example of a general control for a computerized system?

(a) Limiting entry of sales transactions to only valid credit customers.

(b) Creating hash totals from Unique ID numbers for the weekly payroll.

(c) Restricting entry of accounts payable transactions to only authorized users.

(d) Restricting access to the computer center by use of biometric devices.

11.4. As per the recommendations of ENY Company on Information Technology General Controls (ITGC), the management of LMN Co. decided to implement Segregation of Duties (SoD) as one of the primary ITGC. Which of the following statements best describes the importance of SoD?

© The Institute of Chartered Accountants of India

(a) Within the IT department; the duties of system analysts, computer programmers, computer operators, and security administrators should all be the responsibility of one individual.

(b) Good internal control requires that no single employee be given too much responsibility over business transactions or processes. An employee should not be in a position to commit and conceal fraud.

(c) Segregation of Duties is defined as dividing responsibilities for different portions of a transaction (authorization, recording, and custody) for those employees who are on probation.

(d) The objective of SoD is to encourage any one person from having total control over all aspects of the transaction.

Answer Key

Question No.	Answer	
11.1.	**(a)**	Execution
11.2.	**(d)**	An Enterprise Resource Planning System
11.3.	**(d)**	Restricting access to the computer center by use of biometric devices.
11.4.	**(b)**	Good internal control requires that no single employee be given too much responsibility over business transactions or processes. An employee should not be in a position to commit and conceal fraud.

12. Ridonix, a Pune based Data Analytics firm has a workforce of 15 data scientists and 50 analysts and has been specializing in the field of Finance and Costing analytics. It has served many major hotel chains of the country and has been successful since its inception.

Ghoomo Hotels having a chain of 25 hotels all over India, was going through a huge cash crunch and on the verge of closure. They approached Ridonix to find solutions to reduce costs and implement

© The Institute of Chartered Accountants of India

effective pricing models to lure customers. The objective given to Ridonix is to bring the hotel chain at break-even point in next two years.

The analysts' team from Ridonix gathered relevant information from Ghoomo's operations team and found many genuine loop-holes in their systems. Followings were the observations of Ridonix:

- There were multiple booking partners to operationalize the online bookings in hotels for which high commissions/discounts were being paid but no proper checks on payouts to these booking partners were in place.
- Further, there were three banking gateway partners associated throughout who were charging higher than industry standards as their convenience fees.
- The booking system was also internally flawed as it could not manage and update cancellations online which means that the systems reported rooms as booked to new customers whereas they had actually been cancelled online.
- Due to lack of clear implementation of Segregation of Duties, major confidentiality breach was reported, wherein two employees Mr. Rajesh and Mr. Ajay could gain access to confidential data of customers and their preferences and had sold the huge data to Ghoomo's competitors in the market.
- The entire internal reporting system was redundant and needed a corrective update.

  The system advisory report from Ridonix suggested the management of Ghoomo Hotels to take the following corrective measures:

  a. To call in change management of the existing reporting software so that any cancellation through any booking partner/customer gets promptly reflected to all the online booking partners/customers.

© The Institute of Chartered Accountants of India

b. To implement an integrated payment system rather than relying on multiple gateways of multiple banks to save costs in banking transactions.

c. To create a dummy entity in the application system files to verify periodically the availability of timely and accurate information to all the customers/booking partners.

e. To get legal contracts drafted by legal experts and put them up on the website and application of Ghoomo Hotels so that the business from data privacy litigations in future may be safeguarded.

f. IT department of Ghoomo hotels to clearly demarcate the duties for different personnel to ensure that there are no Segregation of Duties (SoD) conflicts.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 12.1. to 12.5.

12.1. Identify the cheapest and most effective payment mechanism to get implemented as an integrated payment channel for Ghoomo Hotels.

(a) Aadhar Enabled Payment Services (AEPS)

(b) UPI based Application

(c) Immediate Payment Service (IMPS)

(d) Mobile Wallets

12.2. Ridonix advised its client to focus on change management as the first and foremost step for strengthening its Information System. What kind of control have they advised Ghoomo Hotels to focus on here?

(a) Data Resource Management Control

(b) Application Control

(c) Managerial Control

(d) Preventive Control

© The Institute of Chartered Accountants of India

12.3. One of the biggest challenges for Ghoomo Hotel is the situation where no corresponding update in the systems is occurring in case of cancellations, thereby leading to huge revenue loss. Which of the following tool would be best suited to Ghoomo Hotel in order to keep pace with Ridonix's advice?

(a) SCARF (System Control Audit Review File)

(b) Audit Hooks

(c) Audit Trail

(d) Integrated Test Facility (ITF)

12.4. With a strong ERP System in place as suggested by Ridonix, which of the following controls would best curb the confidential data misuse by its employees?

(a) Server Back Up Arrangement

(b) Network Access Control

(c) Role Based Access Controls

(d) Physical Access Controls

12.5. Mr. Rajesh and Mr. Ajay could gain the confidential data of Ghoomo's customers and misused it for profit making purpose. Under which Section of Information Technology Act 2000 can they be punished for misusing and selling the confidential data they had access to?

(a) Section 67

(b) Section 66C

(c) Section 66D

(d) Section 43

Answer Key

Question No.	Answer
12.1.	**(b)** UPI based Application
12.2.	**(b)** Application Control

© The Institute of Chartered Accountants of India

12.3.	**(d)**	Integrated Test Facility (ITF)
12.4.	**(c)**	Role Based Access Controls
12.5.	**(d)**	Section 43

13. 1K Pvt. Ltd. is a new generation sports drink manufacturer company. The company recently took a loan of ₹ 1.50 crores from Dhan Bank, its banking partner for the e-commerce portal, to double-up their manufacturing unit in Aurangabad. The business is focused on a niche target market with immense potential in India. The owners are quite satisfied with the results so far, but also face few challenges as they plan to scale up.

Ms. Kumari G., the founder of the 1K Pvt. Ltd., hired a market research firm to ratify her instinct that the teenage segment in India is increasingly focused on sports and fitness, and has available disposable income to spend on themselves. The market firm did an in-depth data analysis and reported that it has indeed a potential market with 10x growth visibility in coming 5 years.

The Company with recent plans of scaling up operations called for a special meeting to find solid solutions of identified concerns. The major concern of the management was regarding the Purchase Department. Firstly, delays in posting accurate information regarding raw material inventory were creating undue pressure on the production line. Proper reporting mechanism was suggested to be put in place. Secondly, major concern was cash leakage from the system. Internal Audit experts were notified to put in strong audit trails to mark red flag transactions and further block those transaction owners temporarily.

1K Pvt. Ltd.'s core of being of new age company focused on teenagers is also mandated in its office campus. The employees are encouraged to continue working at their owned devices at work also and are reimbursed the cost of internet if they use their personal hotspots. It creates an environment of individuality and freedom amongst workers. It has also helped the company in saving good amount of money in IT infrastructure and network provider costs.

© The Institute of Chartered Accountants of India

The company reported revenue of ₹ 3.00 crores last year, and with scale up of operations, it is projected that numbers would cross ₹ 10.00 crores in the coming year.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 13.1. to 13.4.

13.1. To save on IT infrastructure costs, 1K Pvt. Ltd. encouraged employees its employees to continue working at their owned devices at work. Which of the following would not be a risk associated with this practice?

(a) Network Risk

(b) Loss of Device Risk

(c) Reduced IT Support

(d) Application Viruses and Malware

13.2. Referring to the case, which of the following phase in Inventory Cycle is the pressure point for 1K Pvt. Ltd.?

(a) Production Phase

(b) Ordering Phase

(c) Delivery Phase

(d) Sales Return Phase

13.3. The flow of transactions' data between the Dhan Bank's server and 1K Pvt. Ltd.'s server when a customer initiates a purchase on the company's website, include the following steps:

(i) Customer Places Order on Website.

(ii) Request flows to Payment Gateway.

(iii) Request for Bank's confirmation is generated.

(iv) Order request sent to Merchant's Server.

(v) Updated status on Merchant's Server.

(vi) Confirmation sent to Payment Gateway.

© The Institute of Chartered Accountants of India

(vii) Request accepted and approved by bank and funds transferred to merchant.

(viii) User is notified about payment and order is placed.

What would be the correct sequence of aforementioned steps?

(a) (i), (iv), (iii), (ii), (v), (vii), (vi), (viii)

(b) (i), (v), (iii), (ii), (vii), (iv), (vi), (viii)

(c) (i), (iv), (ii), (iii), (vii), (vi), (v), (viii)

(d) (i), (ii), (iii), (iv), (v), (vi), (vii), (viii)

13.4. Which of the following will not be ensured by the audit tool used to protect 1K Pvt. Ltd. from cash leakage in the system?

(a) Detect Unauthorised Access

(b) Block Cash Outflow Ledgers

(c) Reconstruct flow of Events

(d) Monitor user activity

Answer Key

Question No.	Answer
13.1.	**(c)** Reduced IT Support
13.2.	**(b)** Ordering Phase
13.3.	**(c)** (i), (iv), (ii), (iii), (vii), (vi), (v), (viii)
13.4.	**(b)** Block Cash Outflow Ledgers

14. ABC Ltd., a leading manufacturer of the Water Purifiers all over the country having customized ERP System, decided to launch a new Wi-Fi enabled water purifier "Purity" with UltraViolet Filters and advance technology. The purifier Purity can be connected with the home Wi-Fi and when the purifying agents deplete, the user may inform the service agents of the company for which the management has already outsourced the servicing process and Annual Maintenance Contract (AMC) to different local agencies.

© The Institute of Chartered Accountants of India

At the time of manufacturing of the product, the company for making the payment of raw material purchased from the supplier, opted for a Bank Guarantee from the Amy Bank.

The company also changed the collection of payment policy for debtors by giving them more payment options as well as introducing the discount policies on bulk purchases and timing of the payments. Additionally, with an objective to reduce the paper consumption and cost-saving, the management preferred online marketing over paper-based marketing and online invoicing.

To increase the awareness of their product "Purity" and ease to its customers to use it, the management decided to register itself on famous e-commerce websites so that the product can be delivered to its customers at their doorsteps. Now, the customer can purchase Purity online as well as offline. They also decided to open Cash on Delivery (CoD) option for its customers with free shipping and easy returns.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 14.1. to 14.4.

14.1. In the purview of the above case, the advertisement and sale of product can be made using either online or offline means. The order will be fulfilled, invoice created, payment received and then accounting will be done. Which business process consists of these multiple sub-processes?

(a) Inventory Cycle

(b) Order to Cash

(c) Purchase to Pay

(d) Fixed Assets

14.2. As the Bank Guarantee of ABC Ltd. has been approved by the company Amy Bank, the bank accrued certain amount over the tenure of the bank guarantee. The amount which the Bank receives from the ABC Ltd. can be termed as _____.

(a) Interest Income

(b) Discounting Income

© The Institute of Chartered Accountants of India

(c) Commission Income

(d) Guarantee Charges

14.3. Since ABC Ltd. has decided to outsource the working of the service agents and AMC, the company is required to establish certain controls to well examine it. Under which Managerial Control, the monitoring of the outsource contracts can be done?

(a) Data Resource Management Controls

(b) Quality Assurance Management Controls

(c) Security Management Controls

(d) Operations Management Controls

14.4. ABC Ltd. had adopted online marketing rather than paper-based marketing and online invoicing to their customers. Which technology follows this practice?

(a) Grid Computing

(b) BYOD

(c) Mobile Computing

(d) Green Computing

Answer Key

Question No.	Answer
14.1.	**(b)** Order to Cash
14.2.	**(c)** Commission Income
14.3.	**(d)** Operations Management Controls
14.4.	**(d)** Green Computing

15. KPL Bank is a new entrant in the banking sector that got established in 2019, after getting approval from the Reserve Bank of India for setting up a universal bank. The Directors decided to change the regular banking style by adopting some of the new ideas which will assist in catering to the market and gain competitive advantage over other banks.

© The Institute of Chartered Accountants of India

- The bank decided to implement the Core Banking System that will help in assessing the same bank data by all the branches and ATMs.
- The management of KPL Bank decided to introduce "Tab Banking" wherein the bank officials would go to the customer's place and open the bank account at their premise by clicking the customer's photographs and scanning the required documents using tab.
- They decided to provide banking services at doorstep to senior citizens and differently abled customers wherein the bank may help these people in deposit and withdrawal of the cash, and other banking services at their doorstep.
- A mobile application named "mKPL" would be created that may allow the customers to make financial transactions, check balance, transfer money, and perform other banking operations using their smart phones or tablets.
- Banks being the backbone of the economy, KPL Bank decided to be better equipped with technology to minimize fraud and control exposure risks. Hence the management also aimed to strengthen its Information Technology department with proper segregation of duties among personnel. This step will help in establishing proper controls with risk management.
- They worked towards the establishment of branches in rural areas all over the country and providing the farmers with loans and different savings options.
- The bank adheres to all the regulatory and compliance requirements applicable to them. Their focus is on using IT in the best possible ways and achieves higher customer satisfaction by rendering them all the products and services.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 15.1. to 15.5.

15.1. The Reserve Bank of India has given approval to "KPL Bank" to start operations as universal bank. Which among the following

© The Institute of Chartered Accountants of India

Act gives the power to the Reserve Bank of India to license new banks to start operations?

(a) Reserve Bank of India Act, 1934

(b) Banking Regulation Act, 1949

(c) Prevention of Money Laundering Act, 2002

(d) Information Technology Act, 2000

15.2. As a part of risk management, the KPL Bank is deploying a separate Information Technology organization structure with proper segregation of duties for different personnel within IT department. This type of risk management comes under which control?

(a) Application Control

(b) Internal Control

(c) Semi-Automated Control

(d) Infrastructure Control

15.3. In the purview of the above case, KPL Bank wants to be better equipped to minimize frauds and control exposure risks. Which technology will help in examining those data sets?

(a) eXtensive Business Reporting Language

(b) MIS Reporting

(c) Data Analytics

(d) Grid Computing

15.4. As per the above, the application of KPL Bank named "mKPL" is created to help the customers to perform the transactions at their convenience. Identify the emerging technology on which "mKPL" works?

(a) Cloud Computing

(b) Grid Computing

(c) Mobile Computing

© The Institute of Chartered Accountants of India

(d) Green Computing

15.5. KPL Bank is using the Core Banking System that has a server which provides consolidated view of all the bank's operations, and the bank data can be accessed from a server by all the branches as well as the ATMs. In which part of the system, bank data is stored?

(a) Proxy Server

(b) Central Server

(c) Local Server

(d) Print Server

Answer Key

Question No.	Answer
15.1.	**(b)** Banking Regulation Act, 1949
15.2.	**(d)** Infrastructure Control
15.3.	**(c)** Data Analytics
15.4.	**(c)** Mobile Computing
15.5.	**(b)** Central Server

16. New India Global Healthcare Private Limited (NIGHPL) is a medical insurance service provider company in India. Presently, the company is working on its software called "Nirogaya" to maintain all records such as details of all policyholders, premium and outstanding premium, and various reports that may require further customization on manual basis. However, due to system vulnerability and lack in appropriate controls, recently an incident took place wherein an employee Mr. Ramesh was caught sharing confidential records of 1000+ policyholders to NIGHPL's competitor Satyam Cell Marketing Global Private Limited.

Mr. Sumit appointed as an IS auditor of NIGHPL conducted its' IS audit and highlighted some key control weakness issues and comments on company's password policy that was prepared but not implemented by the Information Technology (IT) Department. He submitted his audit

© The Institute of Chartered Accountants of India

report to Board of Directors of NIGHPL and recommended an immediate attention of management to address the issues as specified in the report. With a need for immediate action, Board of Directors of NIGHPL held a meeting with its' senior members of the management including Chief Information Officer, Chief Financial Officer and Chief Executive Officer. The decisions taken in the meeting was as follows:

- To approach Big 4 System Development and Service Provider to develop ERP system and its implementation at various locations across the country with in-built effective and efficient IT Controls in place.
- To implement Balance Scorecard, a strategy performance management tool to identify and improve various internal business functions and their resulting external outcomes.
- To provide no access to details of policyholders to any employee without prior permission of IT head.

Mr. Sukant an employee of Big 4 system development and service provider was assigned the job to understand the requirements for the proposed system of NIGHPL. For that, he frequently visited the company and interacted with users of the computer system. The Company also approached to Amazon Web Services to provide them access to Virtual Machines for data processing. Company had also prepared the backup strategy whereby the data is taken from the live environment to backup drive.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 16.1. to 16.4.

16.1. In the light of IT Act, 2000; who will be held responsible for paying compensation to the policyholders of NIGHPL whose data got leaked for failure to protect their data?

(a) Directors of Satyam Cell Marketing Global Private Limited

(b) Directors of New India Global Healthcare Private Limited

© The Institute of Chartered Accountants of India

(c) Shareholders of New India Global Healthcare Private Limited

(d) Directors of Big 4 system development and service provider

16.2. IS auditor has observed that the NIGHPL has not implemented password policy properly and allowed users to keep short-length login passwords for system access and not aware for frequently changing it. This refers to _____ in purview of Information System Concepts.

(a) Exposure

(b) Threat

(c) Vulnerability

(d) Attack

16.3. NIGHPL approached to Amazon Web Services to provide them access to Virtual Machines for data processing. Which of the following Cloud Computing Service Model will be useful for this?

(a) Network as a Service (NaaS)

(b) Infrastructure as a Service (IaaS)

(c) Platform as a Service (PaaS)

(d) Software as a Service (SaaS)

16.4. If you were requested to advice NIGHPL's management on its Password Policy to be followed by its users to protect its data, which of the following feature will you recommend making the password control strong?

(a) Password length should at least be of 4 characters.

(b) Password should be changed once in a year.

(c) Password should always be in numeric form.

(d) Password of user should be blocked after three unsuccessful login attempts.

© The Institute of Chartered Accountants of India

Answer Key

Question No.	Answer	
16.1.	**(b)**	Directors of New India Global Healthcare Private Limited
16.2.	**(c)**	Vulnerability
16.3.	**(b)**	Infrastructure as a Service (IaaS)
16.4.	**(d)**	Password of user should be blocked after three unsuccessful login attempts.

17. CBZ Singapore Global Insurance Limited is a reputed Insurance Company with its Head Office located in Singapore. With an aim to expand its business, the company started a subsidiary company in India in the year 2019 and obtained the license from Insurance Regulatory and Development Authority (IRDA).

In India, IRDA is an autonomous statutory body tasked with regulating and promoting the insurance and re-insurance industries in India. It protects the interest of policy holders; and regulates, promotes and ensures orderly growth of the insurance in India. Information Systems Audit has a significant role in the emerging insurance sector.

CBZ Singapore Global Insurance Limited has framed and setup a committee of ten personnel for implementation of ERP to automate all business processes in their company and also responsible for the compliance of various rules and regulations of IRDA and other applicable laws.

The Company adopts Mobile Computing to sell its insurance products online. Also, the company establishes 50 branches throughout India to appoint agents to promote the selling of its insurance products. Company uses a Wide Area Network to allow its agents away from home office to obtain current rates and client information and to submit approved claim using notebook computers and dial in modems.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 17.1. to 17.3.

17.1. In the given case scenario, the technology Mobile Computing adopted by CBZ Singapore Global Insurance Limited will have

© The Institute of Chartered Accountants of India

its own limitation. Which of the following will fall under the list of limitations of Mobile Computing?

(a) Ensuring reduced travel time for employees.

(b) Ensuring mobile workforce with remote access to work order details.

(c) Increased information flow enables in improving management effectiveness.

(d) The users' disrupted access of information due to insufficient bandwidth.

17.2. In the given scenario, suppose if there is a leakage of sensitive/confidential data of any policy holder. Who will be held liable to pay compensation for failure to protect policyholder's data under IT Act, 2000?

(a) Directors of CBZ Singapore Global Insurance Limited

(b) Shareholders of CBZ Singapore Global Insurance Limited

(c) Officer of Telecom Regulatory Authority of India

(d) Agents of CBZ Singapore Global Insurance Limited

17.3. Suppose you are appointed as an IS auditor of CBZ Singapore Global Insurance Limited. When you are going to audit the implementation of Physical Access Controls, which of the following activity is not undertaken by you?

(a) You must check that the risk assessment procedure adequately covers periodic and timely assessment of all physical access threats.

(b) You must check whether the physical access controls are adequately in place.

(c) You must examine the relevant documents such as security policies and procedures are prepared.

(d) You must develop and document an overall audit plan describing the expected scope and conduct of the audit.

© The Institute of Chartered Accountants of India

Answer Key

Question No.	Answer	
17.1.	**(d)**	The users' disrupted access of information due to insufficient bandwidth.
17.2.	**(a)**	Directors of CBZ Singapore Global Insurance Limited
17.3.	**(d)**	You must develop and document an overall audit plan describing the expected scope and conduct of the audit.

18. M/s XTC Ltd., a FMCG company dealing home care, personal care, and health care products. The company has been seeing drop in sales over past few years. Company has traditional distribution channels which include wholesale dealers, retailers, and agents. Company has been using a legacy integrated system since 2004. To get better understanding for the reasons for decline in sales, XTC Ltd. decides to appoint a consultant. The company appoints Ms. Venus Andromida (Ms. VA) as business consultant.

Ms. VA has more than a decade of experience and is a MBA from IIMA plus qualified CISA, CISM expert. Ms. VA has been given six months to analyse the reasons for decline in sales and submit her report for the same. Ms. VA submits her reports in two parts with Part one dealing with identification of key reasons for business decline and Part two proposing the solution to identified problems.

Report's Part I: Ms. VA finds that Customer order execution (Turnaround Time: TAT) is twice the market norms. In the present system, retailers' orders are accepted by sales representatives who send the same to HO on email where the Sales head takes the necessary actions. This process is having many human interfaces leading to delay in supply of goods to customers once email has been sent for orders. Many times, the received goods and ordered goods do not match. All these factors result in untimely delivery of products thereby leading to dissatisfaction amongst its customers.

Report's Part II: Ms. VA suggested following solutions:

© The Institute of Chartered Accountants of India

1. XTC Ltd. needs to implement ERP system that shall integrate all departments of the company including key departments - Sales and Distribution, Material Management, Financial Management, Production and Planning and Costing & Human Resources. This shall help the company optimize resource utilization and increase profitability.

2. The proposed system shall have an online mobile APP enabled system of order acceptance from retailers and wholesalers. Mobile APP to be installed on all sales representative systems.

3. In the new system, the reorders levels for various products for each wholesaler shall be preloaded individually to make inventory management better. As soon as inventory level of a product will reach reorder level, system will send a purchase order for Re-order Quantity/Economic Order Quantity to vendor. This shall significantly reduce the Turnaround Time.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 18.1. to 18.3.

18.1. Ms. VA proposed to implement ERP System in XTC Ltd. with an objective of getting benefitted in terms of various aspects. Identify the factor not achieved with ERP implementation.

(a) Reduction in Cycle time

(b) Better utilization of resources

(c) Enhanced decision-making capability

(d) Reduced implementation time

18.2 Ms. VA in first part of her report mentioned the increase in customer dissatisfaction due to delay in product delivery to customers. Which type of business risk applies to such event?

(a) Operational Risk

(b) Hazard Risk

(c) Compliance Risk

(d) Technology Risk

© The Institute of Chartered Accountants of India

18.3. Ms. VA suggested in her report that XTC Ltd. shall implement ERP system to manage its database in centralized manner. Identify which amongst the following is not an advantage of Database Management System.

(a) Minimizing data redundancy

(b) Enhanced Data sharing

(c) Program and file consistency

(d) Independent file formats

Answer Key

Question No.	Answer	
18.1.	**(d)**	Reduced implementation time
18.2.	**(a)**	Operational Risk
18.3.	**(d)**	Independent file formats

19. VK Textile Cotton Fabrics Private Limited is an export-oriented unit established in the year 2016. The company manufactures Cotton Fabrics in India and exports it to some Asia-pacific countries also. In December 2019; the company acquired a manufacturing unit of Dubai (UAE). Presently, the company is going in the process of listing in Bombay Stock Exchange and National Stock Exchange for listing its securities. Mr. Sameer Jain joined the Company as Chief Executive Officer (CEO) with effect from 01st January 2020. After taking his duty charge, he held various meetings with the company's management, directors and stakeholders and presented a unified proposal on future of the company in meeting which are as given below:

- Expansion of the company business in other foreign countries including European Countries and Gulf Countries.
- With best quality product under reasonable price i.e., called value for money for its customers worldwide.
- Spreading out more e-commerce business activities and online presence worldwide.

© The Institute of Chartered Accountants of India

- Development & Implementation of Information System security policy.
- Adoption of new and emerging IT technologies includes Cloud Computing, Mobile Computing, Green Computing etc. for the company.
- Reciprocal agreement for disaster recovery with another company called G.K. Global Textile and Cotton Fabrics Limited (already a listed entity in Bombay Stock Exchange) w.e.f. 5th January 2020 wherein they both agree to provide backup facilities to each other in the event of one suffering a disaster.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 19.1. to 19.3.

19.1. VK Textile Cotton Fabrics Private Limited has entered into a reciprocal agreement as one of the strategies of Disaster Recovery Planning. Which of the following risk treatment approach does it indicate?

(a) Risk Transfer

(b) Risk Elimination

(c) Risk Mitigation

(d) Risk Acceptance

19.2. In purview of above case scenario, which of the following technology as suggested in unified proposal is a practice of using computers and IT resources in a more efficient environmentally friendly and responsible way?

(a) Grid Computing

(b) Cloud Computing

(c) Virtualization

(d) Green Computing

19.3. Under which sub process of Information Security, the company can implement security at configuration and security for any transaction?

© The Institute of Chartered Accountants of India

(a) Database Security

(b) Network Security

(c) Application Security

(d) Operating System Security

Answer Key

Question No.	Answer
19.1.	**(a)** Risk Transfer
19.2.	**(d)** Green Computing
19.3.	**(c)** Application Security

20. KD Health and Medical Care Limited provides a medical health check and other medical outsource services to its various its clients/customers that includes pharmacists, physicians, patients, educational institutions, day care establishments, government agencies and insurance companies. The company is located in Agra with all its 100 employees living on the private land space situated at Agra.

The Company has a policy of allocating the super-user password to General Manager (GM) in Finance Department. The same is defined in the Job Profile of GM (Finance) who is responsible to supervise the allocation, deletion, modification, and suspension of user rights to employees based on approvals made by HR Department. On 26th September 2018; the General Manager (Finance) resigned from the Company and on 1st October 2018; a new joinee who joined the company as GM was given another super-user password.

In due course of time, the Company hired Mr. John as its internal auditor in the month of March 2019. After the due procedure, he submitted his draft IS Audit Report to Chief Executive Officer (CEO) and Managing Director highlighting following key control issues:

- There is no basic configuration in the accounting system to restrict cash payment in excess of ₹ 10,000/- that result in the expense being disallowed as a business expense. That shall lead to increase in the tax liability of the company.

© The Institute of Chartered Accountants of India

- There is no effective internal control system regarding user management, creation, and modification of accounting voucher.
- Since the joining of Mr. Amit as an accountant, there have been some audit logs in which some dates were missing and altered in some other cases.
- There are unused computer systems lying idle. There is no antivirus or security mechanism existing in the computer systems of the employees carrying out day to day transactions.
- There are versions of unauthorized software installed on numerous computer systems.
- There is no physical and environmental control policy for safeguarding of company assets.

IS auditor recommended a proposed solution to overcome the aforementioned issues. To implement the same, he recommended a strategy to adopt new accounting system with the old and new systems both being used alongside each other, both being able to operate independently. If all goes well, the old system is stopped and new system carries on as only system.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 20.1. to 20.4.

20.1. Mr. Amit could modify few vouchers for which he was not authorised to, hence the audit logs in some cases were altered, which indicates the violation of Segregation of Duties control. Under which of the following category this control falls?

(a) Preventive Control

(b) Environmental Control

(c) Corrective Control

(d) Detection Control

20.2. In the given case scenario, IS auditor used a concurrent audit technique to check whether the accounting system restricting the cash payment in excess of ₹ 10000/- or not. Identify from

© The Institute of Chartered Accountants of India

the following concurrent audit techniques which would be useful in above case.

(a) Use of System Control Audit Review File (SCARF)

(b) Use of Integrated Test Facility (ITF)

(c) Use of Continuous and Intermittent Simulation (CIS)

(d) Use of Snapshot

20.3. In the given case scenario, if a junior employee Mr. AB from finance department sends email to banker for request for money transfer and pertained to be as GM (Finance) of Company. Under which of the following section of Information Technology Act, 2000 Mr. AB will be punished?

(a) Section 66A

(b) Section 66B

(c) Section 66C

(d) Section 66D

20.4. In purview of above case scenario, there is no effective internal control system regarding creation and modification of accounting voucher. An employee used the incorrect vouchers to record the physical receipt of goods purchased from vendor. Which of the following voucher he should use for correction?

(a) Delivery Note

(b) Receipt Note

(c) Debit Note

(d) Credit Note

Answer Key

Question No.	Answer
20.1.	**(a)** Preventive Control
20.2.	**(b)** Use of Integrated Test Facility (ITF)

© The Institute of Chartered Accountants of India

20.3.	**(d)**	Section 66D
20.4.	**(b)**	Receipt Note

21. SMS Limited is a multinational company engaged in providing financial services in all over India. Most of the transactions are done online. Presently, SMS Limited has Centralized Data Server which can be accessed by users from various geographical locations. However, it's current system is unable to cope up with the growing volume of transactions. Frequent connectivity problems, slow processing and few instances of virus attacks and phishing attacks were also reported since last few months wherein hackers acquired sensitive information by masquerading as a trustworthy entity. Hence, the Company has decided to develop more comprehensive robust in-house software for providing good governance and sufficient use of computer and IT resources with implementation of effective and efficient controls provided in the system to ensure the data integrity, confidentiality, and availability.

Also, an updated backup plan is to be prepared to ensure and specify the type of backup to be kept, frequency with which backup is to be undertaken, procedures for making a backup, location of backup resources, site where the resources can be assembled and operations restarted, personnel who are responsible for gathering backup resources and restarting operations, priorities to be assigned to recover various systems and a time frame for the recovery of each system. SMS Limited has taken various types of insurance coverage for safeguarding of its assets and to avoid unexpected future liabilities due to uninterrupted event or disaster.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 21.1. to 21.4.

21.1. In purview of above case scenario, a few instances of phishing attacks were also reported. Which of the following section of Information Technology Act, 2000 fixes liability on the company to secure data of their customers?

(a) Section 43A

© The Institute of Chartered Accountants of India

(b) Section 46

(c) Section 66D

(d) Section 75

21.2. Suppose you are appointed as an IS auditor by SMS Limited for auditing its Information Systems. You are determining what controls are exercised to maintain data integrity for which you might also interview database users to determine their level of awareness of these controls. Which of the following Control are you working on?

(a) Data Resource Management Control

(b) Security Management Control

(c) Operation Management Control

(d) Quality Assurance Control

21.3. SMS Limited has taken various types of insurance coverage for safeguarding of its assets and to avoid unexpected future liabilities due to uninterrupted event or disaster. These insurance coverage falls under which type of specific risk management strategy.

(a) Terminate the Risk

(b) Mitigate the Risk

(c) Accept the Risk

(d) Share the Risk

21.4. In order to protect its critical data from virus attack; SMS Limited decided to limit the access to the social networking sites by its employees in future. What type of risk response the company exercised in this case?

(a) Terminate the Risk

(b) Treat the Risk

(c) Tolerate the Risk

(d) Transfer the Risk

© The Institute of Chartered Accountants of India

Answer Key

Question No.	Answer	
21.1.	**(c)**	Section 66D
21.2.	**(a)**	Data Resource Management Control
21.3.	**(d)**	Share the Risk
21.4.	**(b)**	Treat the Risk

22. Ms. Queen was appointed as Manager – Operational Risk and Compliance in ABC Company. HR of ABC Company had completed all the formalities for her appointment. Mr. Maharana, the Head of Human Resource (HR) Department had signed her joining letter with black ink pen and delivered the same to her. On her joining, she was handed over a well written document by the HR Department that provided instructions to its employees briefing upon what kind of behavior or resource usage is required and acceptable in the Company. It also contained detailed information on how to protect company's information asset and instruction regarding acceptable practices and behavior. In a week's time, she got to meet Mr. Raja, Chief Executive Officer (CEO) of the company who instructed her to conduct broad review of Human Resource Department Process to determine the probable risks and to analyze the effectiveness and efficiency of existing controls in HR process. Based on that, Ms. Queen started to review HR processes and controls implemented in the company and highlighted following key matters in her report submitted to CEO:

- Absence of Rotation of duties control
- Absence of Segregation of duties control
- Lack of maker and checker concept
- Manual authorization procedure exists
- Manual attendance registers.
- Using Social Networking Websites like Facebook, Twitter etc. by employees during office timings on computer resources.
- Plan & Budget approved for development of Robust & Fully Automated Payroll Software but not implemented till date.

© The Institute of Chartered Accountants of India

- Suggested to implement BYOD.

Mr. Raja appreciated the detailed report of Ms. Queen and started taking corrective steps for improvement.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 22.1. to 22.3.

22.1. Which of the following would BEST provide assurance of the integrity of Ms. Queen (new staff) that might be treated as preventive control measure for ABC Company?

(a) Employing qualified personnel

(b) References

(c) Bonding

(d) Qualifications listed on a resume

22.2. During review, Ms. Queen found that an employee Mr. X is using social networking websites like Facebook and Twitter during office hours. Under which of the following section of Information Technology Act, 2000; shall he be punishable?

(a) Under section 43

(b) Under Section 66A

(c) Unser Section 66D

(d) Not be punishable unless they come under the provisions of the Indian Penal Code, 1860

22.3. In the given case scenario, Ms. Queen's suggestion to implementation of Bring Your Device (BYOD) policy may make the ABC Company's systems vulnerable to related threats. Any lost or stolen device could result in an enormous financial and reputational embarrassment to the company. Which of the risk does this refer to?

(a) Device Risk

(b) Implementation Risk

© The Institute of Chartered Accountants of India

(c) Confidentiality Risk

(d) Application Risk

Answer Key

Question No.	Answer	
22.1.	**(a)**	Employing qualifies personnel
22.2.	**(d)**	Not be punishable unless they come under the provisions of Indian Penal Code, 1860
22.3.	**(a)**	Device Risk

23. Gold Silver Watch India Limited (GSWIL) is a company domiciled in India, with its registered office situated at Mumbai. The Company has been incorporated under the provisions of the Indian Companies Act and its equity shares are listed on the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) in India. The Company is primarily involved in manufacturing and sale of Gold and Silver Watches, Jewelry, Eyewear and other related accessories and products. Company has 200 retail stores all over India and launched Loyalty Card for its customers. The customer data for the loyalty card is picked from a form filed by the customer on the retail store of the company. The data from the form is entered into the software by data entry operators who report to a manager. In order to protect customer data, Segregation of Duties are built in the software in such a way that the operators have permission only to enter data. After submission of form, any editing or modification in the form can be done only by the manager. The retail stores across India collects customer data for loyalty programs consolidated into one database and accessible from a centralized server anytime anywhere and also the company maintained a separate fully equipped facility where the company can move immediately after disaster and resume its business. In Company's Data Centre Housing, about 350 employees are involved in handling business processes of the company. Hence, for security reasons, management decides to shift its network server and mail server to a secluded room with restricted entry. The management decides to give a smart card to authorised people to make entry in the server room.

© The Institute of Chartered Accountants of India

On the recommendation of Chief Information Officer of the Company, existing system of the company is being extensively enhanced by extracting and reusing design and program components.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 23.1. to 23.4.

23.1. GSWIL uses a control on the access to the software application by segregating entry level and updating level duties. What type of Internal Control does this amount to?

(a) Physical Implementation of a Control

(b) Corrective Control

(c) Detective Control

(d) Preventive Control

23.2. In purview of above case, GSWIL decides to shift its network server and mail server to a secluded room with restricted entry. What kind of internal control is applied by the company in this case?

(a) Manual Preventive Control

(b) Manual Detective Control

(c) Computerized Preventive Control

(d) Computerized Corrective Control

23.3. The software of GSWIL has embedded modules for auditing so as to continuously monitor the system transactions. Which of the following IS audit tools exemplifies this case?

(a) Continuous and intermittent Solution (CIS)

(b) Audit Hooks

(c) System Control Audit Review File (SCARF)

(d) Integrated Test Facility (ITF)

23.4. For Loyalty Cards, the customers provide their personal information to GSWIL. If the company has been found negligent in handling personal information of customers, then

© The Institute of Chartered Accountants of India

company's liability to damages is covered under _____ of Information Technology Act, 2000.

(a) Section 67

(b) Section 43A

(c) Section 43A

(d) Section 66B

Answer Key

Question No.	Answer
23.1.	**(d)** Preventive Control
23.2.	**(c)** Computerized Preventive Control
23.3.	**(c)** System Control Audit Review File (SCARF)
23.4.	**(c)** Section 43A

24. ABC Capital Finance Limited (ACFL) was inaugurated on 21st July 2019 with its Head Office/Corporate Office situated at Mumbai. The Company is registered with the Reserve Bank of India (RBI) as a Non-Banking Financial Company vide. Certificate No. N-13.14.2019. The Company is primarily engaged in Lending Business. There are 10 Regional offices and 255 branches located all over the country that use various types of remote access information systems for smooth and fast processing of different types of loan applications all over branches and regional offices.

Company has adopted an internal control work in line with section 134(5)(e) of the Companies Act, 2013 and as per Clause 49 V(C) and (D) of SEBI, Equity Listing Agreement ensuring the orderly and efficient conduct of its business, including adherence to the Company's policies, safeguarding of its assets and prevention and detection of frauds and errors, accuracy, and completeness of Information to various stakeholders. Company is hosted on a robust Data Centre (DR) and Disaster Recovery Centre has been designed on fundamental principles – data security, data integrity, data availability and data scalability and has strict information security procedures. The company periodically reviews the potential risks however they are considered

© The Institute of Chartered Accountants of India

minor due to their low impact and probability of occurrence. The Management of company appointed a reputed Mumbai-based Chartered Accountancy Firm called as DKT specialized in IS audit for conducting Information System Audit of the Company.

Further, the Company is now gearing up to enhance its technological capabilities across other areas such as mobile computing, cloud computing, and Bring Your Own Device (BYOD).

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 24.1. to 24.4.

24.1. An IS auditor requires to check whether the Application System is calculating correct interest on loan provided by ABC Capital Finance Limited using creation of a dummy entity in the application system. Identify which of the following auditing technique is this process referring to so that authenticity and accuracy of the processes can be verified?

(a) Snapshot

(b) Integrated Test Facility (ITF)

(c) Audit Hooks

(d) Audit Trail

24.2. ABC Capital Finance Limited has robust Data Centre (DR) and Disaster Recovery Centre however, the periodic review may indicate some minor risks having low impact on the company's working environment. However, as the probability of occurrence of such risks is considered to be low, identify the risk treatment approach adopted by the company in this case?

(a) Risk Transfer

(b) Risk Termination

(c) Risk Mitigation

(d) Risk Acceptance

24.3. ACFL has given a contract to XYZ Limited which is a Data Processing Service provider for its various loan processing

© The Institute of Chartered Accountants of India

activities. XYZ Limited has limited Personal Computers at its office, so it approached Amazon Web Service to provide them access to Virtual Machines for data processing. Which Cloud Computing Service Model is being used by XYZ Limited?

(a) Software as a Service (SaaS)

(b) Platform as a Service (PaaS)

(c) Infrastructure as a Service (IaaS)

(d) Network as a Service (NaaS)

24.4. For smooth working and functioning, ACFL has effective internal control system that also includes Segregation of Duties. Is Segregation of duties useful for Company or not and why?

(a) Yes, it reduces employee cost.

(b) No, it complicates the role of the manager who has to manage more employees.

(c) Yes, it reduces fraud risk & facilitates accuracy check of one person's work by another.

(d) No, it is not an advantage; it increases employee cost.

Answer Key

Question No.	Answer	
24.1.	**(b)**	Integrated Test Facility (ITF)
24.2.	**(d)**	Risk Acceptance
24.3.	**(c)**	Infrastructure as a Service (IaaS)
24.4.	**(c)**	Yes, it reduces fraud risk & facilitates accuracy check of one person's work by another.

25. Great India Gramin Co-Operative Society Bank Limited established in the year 2000. It is a single state scheduled rural cooperative bank that provides banking facility to few villages of Rajasthan only. In 2001, an internal review was conducted by a team of inspection and supervision department of National Bank for Agriculture & Rural

© The Institute of Chartered Accountants of India

Development (NABARD) that highlighted certain key controls issues that are as follows:

- The password policies were prescribed but not implemented by the bank.
- Branches use outdated security manual or documentation of security procedures.
- There was only one ATM machine near Bank Premises which had deposits as well as withdrawal facility. Its maintenance was outsourced through third party. The service level agreement was not renewed since last three years and also there is no security guard placed outside the ATM.
- During the inspection, it was observed that while refilling cash in ATM machine, the presence of security guard was not mandatory.
- Illegal and unauthorized software were also installed on few computer systems of the Bank.
- Antivirus software was not updated on few computers of the bank's branches.
- Disaster Recovery Plan existed but was not tested by the employees.
- During inspection, the team observed a fraud where an employee Mr. X had transferred a small amount of money from various account holders to his own account while rounding off in computerized banking system. That fraud turned around to be of ₹ 2,49,587/-.

After review report, the NABARD instructed the Great India Gramin Co-Operative Society Bank Limited to sort out the security control weakness and demanded a reasonable assurance for better security control in future in effective and efficient manner. Subsequently, Bank worked on all the observations made by NABARD and established the following controls:

- Highly qualified IT personnel were appointed in every branch.

© The Institute of Chartered Accountants of India

- Strict follow up and compliance of Information Security and Password Policy for all users.
- Fulfilled the mandatory requirement of presence of security guard along with two personnel of bank for accessing and refilling cash in the ATM machine.
- Predefined role and responsibility of each employee.
- Regular training on risk awareness was to be given to every employee on periodically basis.
- Updated Antivirus software, Intrusion Detection System and firewall on all computers.
- CCTV cameras were installed in every branch of the Bank.
- Bio-metric attendance system was made compulsory for every employee of the Bank.
- New service level agreement with ATM Caretaker company was renewed to provide ATM security guard.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 25.1. to 25.4.

25.1. Inspection team observed a fraud of ₹ 2,49,587/- made by Mr. X. Identify the appropriate example of Rounding down Technique from given below which might have been used by Mr. X.

(a) Turning ₹ 102.02 to ₹ 102.00

(b) Turning ₹ 102.02 to ₹ 102.10

(c) Turning ₹ 102.02 to ₹ 102.50

(d) Turning ₹ 102.02 to ₹ 102.05

25.2. From the given case scenario, it is observed that proper division of work and responsibility are necessary to ensure that one person cannot single-handedly commit a fraud. This can be achieved by using the concept of _____.

(a) Access Control

© The Institute of Chartered Accountants of India

(b) Segregation of Duties

(c) Need to know

(d) Least privilege

25.3. Great India Gramin Co-Operative Society Bank Limited has password policy but not implemented properly, therefore, users were able to keep short length passwords for their convenience to access the banking system. It refers to _____ under Information System concepts.

(a) Threat

(b) Exposure

(c) Vulnerability

(d) Attack

25.4. Great India Gramin Co-Operative Society Bank Limited implemented a new and strict password policy where users have to keep minimum 8 characters alpha-numeric login password and that password must be reset after 30 days to get access in the Banking System. As per classification of the Information System controls, which type of control is this?

(a) Preventive Control

(b) Detective Control

(c) Corrective Control

(d) Compensatory Control

Answer Key

Question No.	Answer	
25.1.	**(a)**	Turning ₹ 102.02 to ₹ 102.00
25.2.	**(b)**	Segregation of Duties
25.3.	**(c)**	Vulnerability
25.4.	**(a)**	Preventive Control

26. SciLabs, is an upcoming robotics company in India providing innovative solutions for different verticals. The company has adopted the concept of

© The Institute of Chartered Accountants of India

Cloud Computing using the cloud type - which is small, most secure, controlled, maintained internally, and used to perform critical activities of the company. For every new project undertaken by them, the functional requirement documents are prepared, and the initial design requirements are communicated to programmers via algorithms and flowcharts. All the customer requirements are tracked, assembling materials are ordered and the details regarding entire cost incurred for training, research and full-fledged development of the product are managed through the implemented SAP ERP system.

Furthermore, different versions of all the documents and white papers related to the ongoing research are stored in the Relational Database Management Systems (RDBMS) Teradata warehouse periodically to maintain record of all the changes a said project undergoes during its entire life cycle. Such methodology enables SciLabs to maintain and compare the data between different time periods based on the time stamps the data is stored in the data warehouse. SciLabs has also implemented stringent controls so that the high-level architectural diagrams of the new project are kept with utmost confidentiality.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 26.1. to 26.5.

26.1. Flowcharts are used by SciLabs to communicate the requirements to the programmers. Which among the following would be the initial step in developing flowcharts?

(a) Identifying the activities in each process step.

(b) Preparing an initial rough diagram.

(c) Identifying the business processes to be documented.

(d) Identifying the starting point of the process.

26.2. SciLabs uses SAP ERP system, one of its modules that enables to create detailed scheduling, material requirement planning, and refine production integration. Which of the following module of SAP ERP support all these features?

(a) Material Management

(b) Supply Chain

© The Institute of Chartered Accountants of India

(c) Production Planning

(d) Sales and Distribution

26.3. The documents and white papers related to the research carried out by the SciLabs analysts are loaded in Teradata warehouse so as to have comparisons of the different versioned files. Which feature of a Teradata tool is referred here?

(a) Standardized

(b) Time Variant

(c) Non-operational data

(d) Consistency

26.4. SciLabs initially has adopted the concept of Cloud Computing using the cloud type - which is small, most secure, controlled and maintained internally. However, with the expansion in its business, the management decided to deploy another cloud named _____ for its non-critical activities and usage of additional resources. Identify the cloud to be deployed.

(a) Private Cloud

(b) Public Cloud

(c) Hybrid Cloud

(d) Community Cloud

26.5. Though stringent controls are implemented by SciLabs, one of its development team members, Mr. Atul accesses the confidential architectural diagrams of the new project and downloads them on his personal computer for wrongful reasons. Under which Section of the Information Technology Act, 2000; is Mr. Atul punishable?

(a) Section 65

(b) Section 43

(c) Section 66

(d) Section 66D

© The Institute of Chartered Accountants of India

Answer Key

Question No.	Answer
26.1.	**(c)** Identifying the business processes to be documented.
26.2.	**(b)** Supply Chain
26.3.	**(b)** Time Variant
26.4.	**(b)** Public Cloud
26.5.	**(b)** Section 43

27. SureSuccess Trainers is one of the most popular training institutions nationwide. During their start in 2007, they provided physical sessions in selected cities on career counselling, mock interviews, competitive exams, and group discussions to prepare under-graduate and post-graduate students for their job placements. Due to high success placement rate of its trained students, they revamped their business model and launched their mobile app in the year 2017. To meet out the expenses associated with new requirement of using mobile technology, SureSuccess Trainers had taken loan of ₹ 20 Lakh from BNC Bank. Since then, the SureSuccess mobile app is catering to the needs of many aspirants all over India by providing them online classes through virtual mode. The app further provides various features like registering for new course, notifications, preparatory material, audios, videos etc. During registration into a particular course, the students need to make online payments of the course through various modes - Net banking, Debit Card and Credit Card. After making payment, every student is allotted a unique user id and password to access their course through mobile app. The mobile app allows the registered students to login into the SureSuccess Trainers App from their unique user-ids and join the live sessions they are enrolled in. Since the launch of its mobile app, the SureSuccess Trainers has been utilizing specialized tools for analyzing the future trend and scope for online coaching and their current position in the coaching industry on the regular basis. They have been performing well and has lately been awarded nation-wide second rank by Corecourse Magazine. The Corecourse Magazine has awarded the rank

© The Institute of Chartered Accountants of India

based on the performance analysis report of various nationwide training institutions on different parameters.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 27.1. to 27.5.

27.1. The SureSuccess Trainers App provides the facility to request for the change in his/her course even after registration in case a student wishes to. A registered student can generate the course change request through the app which subsequently is restricted to be approved by only authorized administrative personnel of SureSuccess Trainers. Such restriction refers to which factors of Business Process Automation?

(a) Confidentiality

(b) Integrity

(c) Availability

(d) Timeliness

27.2. Corecourse Magazine analyzed the performance of various training institutions on different parameters based on which nation-wide second ranking was awarded to SureSuccess Trainers. Which among the following technologies is utilized by Corecourse Magazine for collecting data of various institutions from internal systems and external sources, prepare the data for analyses, develop, and run queries against the query and to create a report based on the evaluated data?

(a) Data warehouse

(b) Business Intelligence

(c) Machine Learning

(d) Data Mining

27.3. SureSuccess Trainers App has controls implemented at the operating system level such that each registered student has access to only his/her registered course and its relevant content. Identify which type of Operating system controls is being implemented here?

© The Institute of Chartered Accountants of India

(a) Automatic terminal identification

(b) User identification and Authentication

(c) Terminal time out

(d) Access token

27.4. The mode of digital payment allowed in SureSuccess Trainers App through which a student can register in any course are Net banking, Debit Card and Credit Card. Which of the following statement does not hold true for these modes of payment?

(a) Through Debit Card of BNJ bank, Mr. Bhola successfully paid ₹ 3,000 online for his desired course through SureSuccess Trainers App which led to the deduction of said amount from his bank account immediately.

(b) If Ms. Rita has successfully paid ₹ 5,000 online for registration in a new course through SureSuccess Mobile App using her Credit Card of ABC Bank, this implies that there should have been sufficient balance in her bank account for the transaction to get completed.

(c) Using the Credit Card of KLU Bank, Ms. Doly paid ₹ 4,800 for the desired course in SureSuccess Mobile App and the transaction got over with charge of some fixed amount as transaction fees by the Credit Card issuer KLU bank.

(d) If the payment for the course has been done by Mr. Ram using his Debit Card of DLF bank, that indicates that he must be having a bank account in the DLF bank.

27.5. SureSuccess Trainers has approached BNC Bank for the loan of ₹ 20 Lakh. To do so, the BNC bank will undergo the process of creating a master for the institution in its Loan Disbursement System. After filling the loan application form, following steps are involved in the creation of masters in Loan Disbursement System.

© The Institute of Chartered Accountants of India

i. BNC bank seeks for KYC and other relevant documents from SureSuccess Trainers.

ii. BNC Bank issues Sanction letter to SureSuccess Trainers mentioning the terms of facilities and loan amount.

iii. The credit team of BNC Bank verifies the documents of SureSuccess Trainers in terms of its financial and credit worthiness.

iv. The SureSuccess Trainers' account and master gets created in the BNC Bank's Loan Disbursement System.

v. Disbursement team prepares Pre-Disbursement certificate containing the details of all the facilities and limit of ₹ 20 Lakh approved for SureSuccess Trainer.

What would be the correct sequence of the process?

(a) i,iii,ii,v,iv

(b) iii,ii,i,iv,v

(c) v,iv,i,ii,iii

(d) i,ii,iii,iv,v

Answer Key

Question No.	Answer	
27.1.	**(b)**	Integrity
27.2.	**(b)**	Business Intelligence
27.3.	**(d)**	Access token
27.4.	**(b)**	If Ms. Rita has successfully paid ₹ 5,000 online for registration in a new course through SureSuccess Mobile App using her Credit Card, this implies that there should have been sufficient balance in her bank account for the transaction to get completed.
27.5.	**(a)**	i,iii,ii,v,iv

© The Institute of Chartered Accountants of India

28. HEALTHY MAASALA Ltd., a FMCG company is dealing in homemade and organic spices. Considering the expansion of company, the company planned to start online sales for its products through online merchants like Amazon, Flipkart, and BigBasket. To start the new line of business, company decides to get a detailed study done for the proposed system; for which the company hires the services of JS Developers. The detailed study performed by JS developers listed few critical issues that are required to be taken care to achieve goals and success which the company intends to achieve. On the basis of its analysis of present system, JS developers prepared a report and submitted it to management of HEALTHY MAASALA Ltd. In annual board meeting, the management considers the report of JS developers on various issues and submits its response on the same. The issues raised by JS developers and action plan of HEALTHY MAASALA Ltd. are listed below.

S. No.	Critical Issues (as mentioned in report of JS developers)	Management Response of HEALTHY MAASALA Ltd.
1	Company needs to streamline, upgrade its processes of order and supply for its new line of business.	Management agrees to expand resources, time, and guidance to start new line of online business and also showed its concern on authentication of customer. Management decides to engage an auditor as a part of development team to ensure that the developed system would be as per the need of new line of business.
2	The success of online business depends on the timely supply of products to customer. Therefore, the company should work	Management considers this point as an important factor and feels that same should be taken care by streamlining and upgrading the processes as the standard of online industry for TAT is changed to 24 hours.

© The Institute of Chartered Accountants of India

	on Turn-Around-Time (TAT).	
3	The business managers need to be provided MIS reports on demand.	Management highlights this as an essential feature of being able to generate relevant MIS reports through proposed system.

Apart from above issues, the company extracts the relevant data on market trend of homemade and organic spices and purchase pattern of customer of these products. Also, the cybercrimes and their counter provisions under IT Act, 2000 governing e-commerce transactions are to be considered while developing the new system.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 28.1. to 28.5.

28.1. TAT represents the time gap between receipt of order and dispatch of order and considered to be an important factor in Order to Cash process flow. The phases of Order to Cash business process are as follows:

(i) Customer Order

(ii) Order fulfilment

(iii) Collections

(iv) Accounting

(v) Invoice

(vi) Delivery Note

Choose the correct set of phases of order to cash business process flow wherein the TAT can be applicable.

(a) (i), (ii),(vi),(v),(iii),(iv)

(b) (i),(ii),(v), (vi),(iii),(iv)

(c) (ii),(iv),(v),(vi),(i), (iii)

(d) (ii),(iii),(iv),(v),(i),(vi)

© The Institute of Chartered Accountants of India

28.2. In the proposed system, the business managers shall have the facility to generate relevant MIS reports. Identify the incorrect about Management Information System (MIS).

(a) Business mangers rely on reports to evaluate businesses' daily activities and make decision.

(b) The warehouse mangers require MIS reports to gain information about product inventory and shipping information.

(c) Finance and accounting managers would require information about sales revenue and business expenses.

(d) Different MIS reports automatically suggest the best solution to its stakeholders.

28.3. The company does not have its own website and hence the management of HEALTHY MAASALA Ltd. decides to sell its products through online intermediary merchants like Amazon and BigBasket etc. Identify the business model of e-Commerce being used by the company in this case.

(a) Business to Consumer e-Commerce

(b) Business to Business e-Commerce

(c) Consumer to Business e-Commerce

(d) Consumer to Consumer e-Commerce

28.4. In purview of above case scenario, the management of HEALTHY MAASALA Ltd. observes that the company must follow IT Act, 2000 that provides the legal recognition for all transactions that are made electronically. As per IT Act 2000; which of the following activity does not fall under the purview of computer related offences?

(a) Violation of Privacy

(b) Stealing Computer resource and computer source document

© The Institute of Chartered Accountants of India

(c) Theft of Identity

(d) Removal, transfer of property to prevent tax recovery

28.5. In purview of case scenario, the decision of management to engage an auditor as a part of system development team is to ensure that the developed system is as per the need of new line of online business. This engagement of Auditor is classified as _____ audit.

(a) Post Implementation

(b) Internal

(c) Concurrent

(d) General

Answer Key

Question No.	Answer	
28.1.	**(a)**	(i), (ii),(vi),(v),(iii),(iv)
28.2.	**(d)**	Different MIS reports automatically suggest the best solution to its stakeholders.
28.3.	**(a)**	Business to Consumer e-Commerce
28.4.	**(d)**	Removal, transfer of property to prevent tax recovery
28.5.	**(c)**	Concurrent

29. GK Sports Ltd. is one of the largest manufacturers of various sports equipment with its head office at Delhi. The company sells its products in both offline as well as online mode through its website. Analysing the good response of customers in India, the company decides to sell its products across the countries- Australia, New Zealand, Canada, US and Germany through online mode. The company offers various payment modes to its customers for their ease like credit card, debit card and UPI. During expansion Mr. Ajay has been recruited as an internal auditor to review the business process. The company uses proper automation for its various business processes and practicing the regular auditing. During assessment, he observes that there exist technical difficulties in integrating the sales amounts received through

© The Institute of Chartered Accountants of India

various payment gateways available on its website across the countries. In order to scrutinize the potential fraud involved, the management of company hires ABC Ltd. to identify the gaps in various payment gateways. ABC Ltd. prepares an inspection summary report mentioning the names of Mr. Ajay and Mr Ravi, managers of the company who used to slice a small amount of money from every computerized transaction made through the portal.

The management decides to book the fraudsters for dishonesty and fraud under the provisions of Information Technology Act, 2000. Learning lesson from the untoward event, the management also finds it necessary to adopt stringent security measures in its information system.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 29.1. to 29.4.

29.1. Which kind of business risk does the management of GK sports Ltd. experiences when Mr. Ajay and Mr. Ravi were found involved in fraud of online transactions?

(a) Strategic risk

(b) Financial risk

(c) Regulatory risk

(d) Operational risk

29.2. In purview of above case scenario, identify the technique used by the fraudster employees and also identify the section under the Information Technology Act, 2000 for they can be booked?

(a) Data Diddling, Section 66

(b) Salami Technique, Section 66

(c) Data Diddling, Section 70

(d) Salami Technique, Section 70

29.3. The management of GK Sports Ltd. wishes to implement some type of access control approach to restrict system access to authorized users, wherein employees having access rights can

© The Institute of Chartered Accountants of India

only access the information they need to do their jobs and prevent them from accessing information which doesn't pertain to them. What type of security measure is being adopted by GK Sports Ltd. in its information system?

(a) General controls

(b) Role-based access controls

(c) Security Management controls

(d) Application controls

29.4. GK Sports Ltd. decides to sell its products across some countries through online mode. Which of the following e-commerce commercial law would it need to follow as a regulation for augmenting exports from India?

(a) Companies Act, 2013

(b) Foreign Trade (Development and Regulation) Act, 1992

(c) Foreign Trade (Development and Regulation) Act, 1994

(d) Companies Act, 2002

Answer Key

Question No.	Answer	
29.1.	**(d)**	Operational risk
29.2.	**(b)**	Salami Technique, Section 66
29.3.	**(b)**	Role-based access controls
29.4.	**(b)**	Foreign Trade (Development and Regulation) Act, 1992

30. Sweet & Sour is a well-established food chain with five branches at different locations within Delhi. In 2018, the management decided to start a tiffin service with 24x7 facility on regular basis. To do so, they decided to acquire software which would be an online assistant to its customers by providing them complete detail about their services. The Management asked its manager to present them a report mentioning the benefits, risks and control objectives and above all highlighting any changes that are required in the working of food chain. The

© The Institute of Chartered Accountants of India

management settled on a plan to benefit all its customers by providing them discounted coupons in case they recommend their services to others and customer ensuring to provide the food chain of three new customers to avail the discounted coupons.

To maintain the list of its customers, the data management team of Sweet & Sour implemented certain changes in its database design of their billing software. Now, the billing system is centralized, and it is mandatory to add customer's name and phone number for each bill that systems generate. Subsequently, the security and maintenance of the database has become essential to protect the system against any unlawful activity as the database now contains the personal details of its customers.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 30.1. to 30.4.

30.1. The software which food chain decided to buy, to help their customer and provide them online help falls under which of the following technology?

(a) Artificial Intelligence

(b) Data Mining

(c) Cloud Computing

(d) Mobile Computing

30.2. The Manager prepared a document wherein he needs to define the business process of the food chain in diagrammatic form. Which of the following diagram will he use to present pre-defined process?

(a)

(b)

(c)

(d)

30.3. The data management team of Sweet & Sour food chain was working to implement changes in database as per the

© The Institute of Chartered Accountants of India

requirement of management. Which of the following person will carry out routine data maintenance and monitor the task?

(a) Database Administrator

(b) Database Architect

(c) Database Analyst

(d) Database Advisor

30.4. The management of Sweet & Sour has shown its concern what would happen if any of its employees dishonestly make use of personal information of customer. Which of the following IT Act, 2000 will help Sweet & Sour to deal with this situation?

(a) Section 43A

(b) Section 43

(c) Section 66E

(d) Section 66B

Answer Key

Question No.	Answer
30.1.	**(a)** Artificial Intelligence
30.2.	**(c)** [redacted]
30.3.	**(c)** Database Analyst
30.4.	**(a)** Section 43A

31. GoCart is one amongst the popular e-commerce shopping portals. It recently entered into a Service Level Agreement (SLA) with Google, wherein Google would provide the necessary application framework and testing tools to GoCart to develop and deploy its application online. On successful deployment of its application and in order to get a competitive advantage over other e-Commerce providers, GoCart launches a multi-saver sale wherein huge discount on the best brands are available, complimentary gifts for purchases above a certain amount and express free delivery are also provided. All the revenue generated through the multi-saver sale will be routed through a

© The Institute of Chartered Accountants of India

separate current account maintained with CSC Bank, from where GoCart has already taken a loan.

With the increase in the cybercrimes and misuse of customer data, GoCart has implemented stringent controls to prevent any unauthorized access to data and has opened up new job roles exclusively with objective of ensuring security at network and operating system levels. Further to comply with the regulatory requirements, GoCart books of accounts are well maintained and subjected to annual statutory audit and the business reporting is done through XBRL.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos. 31.1. to 31.5.

31.1. The multi-saver sale launched by GoCart was initially a success. However, a week after the sale was on, various feedbacks were received by GoCart regarding products, their packaging and delivery. The feedback analysis concluded that the customer satisfaction was just average. Which among the following risk would GoCart be subjected to in this case?

(a) Hazard Risk

(b) Operational Risk

(c) Financial Risk

(d) Residual Risk

31.2. For GoCart, the business reporting is done using XBRL. Identify the feature of XBRL which stops poor quality information being sent to a regulator, when the draft report is being run by one of its staff who had prepared the same?

(a) Clear Definition

(b) Multilingual support

(c) Strong Software Support

(d) Testable Business Rules

© The Institute of Chartered Accountants of India

31.3. With the objective of maintaining utmost security, GoCart recruited Mr. Yash to examine logs from firewalls, intrusion detection system and to issue security advisories to other members in IT department. Which of the following job role best fits into job profile of Mr. Yash?

(a) Operations Manager

(b) Network Architect

(c) Security Analyst

(d) Database Administrator

31.4. With the recently entered Service Level Agreement (SLA) with Google, GoCart successfully developed and deployed its new application. Identify the type of Cloud service utilized by GoCart in the application which is developed online?

(a) Infrastructure as a Service

(b) Platform as a Service

(c) Software as a Service

(d) Network as a Service

31.5. In addition to routing the revenue in accounts maintained with CSC Bank, GoCart also has taken various loans and advances from CSC Bank. If CSC Bank faces the application risk of duplicate asset accounts created for GoCart, which control would be best suggested for this?

(a) The system parameters are set up as per business process rules of the bank.

(b) System validations have been implemented to restrict set up of duplicate customer master records.

(c) Unique Id is created for each asset.

(d) Access for changes made to the configuration, parameter settings are restricted to authorized user.

© The Institute of Chartered Accountants of India

Answer Key

Question No.	Answer	
31.1.	**(b)**	Operational Risk
31.2.	**(d)**	Testable Business Rules
31.3.	**(c)**	Security Analyst
31.4.	**(b)**	Platform as a Service
31.5.	**(c)**	Unique Id is created for each asset.

32. XYZ Pvt. Ltd. is an e-commerce marketplace connecting businesses desiring to outsource digital services to willing freelancers wherein businesses can find the quality freelancers by browsing their samples of previous work and reading their profile reviews. The freelancers can bid for projects on the basis of title, description and area of expertise. The company makes money primarily through transaction fees and service fees from both businesses and freelancers for offering set of services in many categories. The company's aim is to provide fast, accurate, and timely services to its customers. The necessary control policies of company are being in place for early detection and prevention of unlawful events that arise from inaccurate, incomplete and redundant inputs that enter into the system.

The company intends to enter into market as Data Analytics Service Provider by offering services at maximum level of computer optimization. The company would arrange the data to help the businesses identify market gaps, marketing strategy, and product development. Seeking the huge investment in this expansion, the company decides to hire JJ Services for various resources like network, servers, development platforms, storage and software.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos. 32.1. to 32.4.

32.1. XYZ Pvt. Ltd. hires JJ Services for various resources like network, server, storage and deploying applications to be used in Data Analytic services. Which of the following cloud computing service models has been adopted by JJ Services to cater to the requirements of XYZ Pvt. Ltd.?

© The Institute of Chartered Accountants of India

(a) Software as a Service

(b) Platform as a Service

(c) Infrastructure as a Service

(d) Server as a Service

32.2. In purview of above case scenario, XYZ Pvt. Ltd. hinges on Business Process Automation (BPA) whose success depends on following factors except one. Identify it.

(a) Availability

(b) Integration

(c) Timeliness

(d) Substitution

32.3. Which type of business model is being followed by XYZ Pvt. Ltd. through its e-commerce marketplace?

(a) Business-to-Business (B2B) e-Commerce

(b) Business-to-Consumer (B2C) e-Commerce

(c) Consumer-to-Business (C2B) e-Commerce

(d) Consumer-to-Consumer (C2C) e-Commerce

32.4. XYZ Pvt. Ltd. uses a feedback system before hiring JJ Services for various resources' requirement. Which of the following would not be the criteria of Information System used by XYZ Pvt. Ltd. to capture and analyze the feedback data?

(a) Structured

(b) Timely

(c) Operation

(d) Accurate

Answer Key

Question No.	Answer
32.1.	**(b)** Platform as a Service

© The Institute of Chartered Accountants of India

32.2.	**(d)**	Substitution
32.3.	**(c)**	Consumer-to-Business (C2B) e-Commerce
32.4.	**(c)**	Operation

33. M/s TAS & Sons is an automobile manufacturer of spare parts of four wheelers in India. The company does the business in both offline and online mode. The company has four manufacturing units in various locations across the country. It also has two branch offices located in Pune and Hyderabad to handle activities like orders, delivery, complaints, and stock operations. Sometime ago, the company's business processes like accounting, purchase, sales, and inventory were maintained in manual mode. The management of the company observed that the manual processing of these activities hinders the overall working of the business-related daily operations. This resulted in a huge gap in the flow of information, pending orders, delayed deliveries, and delayed decision making due to lack of business reports and therefore overall non-performance.

Therefore, the management committee decides to adopt the process of automation of its various processes so that information flow would be timely and consolidated within its branches and manufacturing units. To attain this objective, the service models of Cloud Computing are proposed to be adopted so that the branches and manufacturing units are interconnected with centralized mechanism of data sharing and storage. The proposed system with well-implemented access controls will provide robust data security among its systems of branches and manufacturing units. Not only the record keeping, but also data maintenance and reports generation would become simpler after the implementation of proposed system. The management is looking for better prospects of adhering to the legal compliances of the country and also to initiate its business operations through online mode.

The company hires a consultant Mr. Sumit to carry out the Feasibility study of its proposed system who prepares a feasibility report and submitted the same to the management. Based on the go ahead report of Mr. Sumit's report, a project team is constituted who will work under him to execute the project and ensure its delivery on time.

© The Institute of Chartered Accountants of India

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos. 33.1. to 33.5.

33.1. The Management committee of M/s TAS & Sons decides to automate its entire business processes anticipating to reap better benefits for the company. Which of the following does not come under the category of benefits of Automation?

(a) Consistency of automated processes

(b) Automating redundant processes

(c) Reduction of turnaround time

(d) Better utilization of employees' time

33.2. In purview of above case scenario, the management decides to adopt the process of automation for its various business processes so that information flow would be timely and consolidated. The data is centralized and in case of loss of any set of data from this location, whole business may come to stand still. Identify from the following controls that may be useful to overcome the aforementioned risk.

(a) It can be controlled by removing redundant data.

(b) Back up arrangement needs to be strong.

(c) To allocate some funds in case of contingencies.

(d) Overhauling of organizational structure is required.

33.3. If the company hires XYZ Ltd. as Cloud Computing service provider, which of the following model of Cloud Computing would be useful for M/s TAS & Sons if XYZ Ltd. hosts and manages the company's application at its data center over the internet to make it accessible to the customers of M/s TAS & Sons?

(a) Infrastructure as a Service

(b) Platform as a Service

© The Institute of Chartered Accountants of India

(c) Software as a Service

(d) Database as a Service

33.4. In purview of the above case scenario, the company decides to install firewall for its business application through online mode in order to make the network secure. Which type of control the company is planning to work on?

(a) Corrective Control

(b) Preventive Control

(c) Network Control

(d) Detective Control

33.5. In purview of above case, if ABC Bank faces the application risk of incorrect classification and provisioning of Non-Performing Asset (NPA) resulting in financial mismanagement, which control would be best suggested for this?

(a) Access for changes made to the configuration, parameter settings should be restricted to authorized user.

(b) Unique Id should be created for each asset.

(c) The system parameters need to be set up as per business process rules of the bank.

(d) Existence of configuration/customization in the application to perform NPA classification as per relevant RBI guidelines.

Answer Key

Question No.	Answer	
33.1.	**(b)**	Automating redundant processes
33.2.	**(b)**	Back up arrangement needs to be strong.
33.3.	**(c)**	Software as a Service
33.4.	**(b)**	Preventive control

© The Institute of Chartered Accountants of India

33.5.	**(d)**	Existence of Configuration/customization in the application to perform NPA classification as per relevant RBI guidelines.

34. Established in 2016, Fit&Fine is one of the renowned gymnasium in South Delhi. The gym is very famous for its health tips, latest equipment, cordial environment, and trainers for guidance. The Fit&Fine gym management has excellent arrangement for its customers as well as employees. A Dietician and a physician are also associated with gym during the gym timings of 5:00 am to 10:00 pm all days.

On the occasion of Diwali in 2019, the gym also launched an online Fit&Fine Gym Aggregator service application to reach out to more customers through various gyms located in West Delhi and North Delhi. For its e-business as online gym aggregator, Fit&Fine entered into various electronic agreements with many other gyms in West Delhi and North Delhi prescribing the specific terms and conditions of the agreement. All these gyms associated with Fit&Fine are required to provide fitness related best services to its customers.

The services of various associated gyms can be availed by the customers either through the Gym Aggregator service application or through physical visit at the registered gyms in the app by paying annual membership fees of ₹ 3000 to get unique membership-id and PIN number to avail the facilities at the gym centre. The member can either book for his physical visit or online session with any of these registered gyms associated with Fit&Fine using their unique membership id.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos. 34.1. to 34.5.

34.1. Though Fit&Fine Gym and other registered gyms have excellent arrangements for health and safety of its employees; yet the management of the gym remains concerned about any negligence that may occur and the risks that can expose it to various penalties posed by any regulatory agency. Which type of business risk is the management here referring to?

(a) Strategic Risk

© The Institute of Chartered Accountants of India

(b) Compliance Risk

(c) Hazard Risk

(d) Operational Risk

34.2. The IT team managing the Fit&Fine Gym Aggregator application manages the MIS Report on various parameters like number of bookings for online sessions/physical meetings done each day, joining of new members per month etc. The information so extracted through these MIS reports fulfill following criterions except one. Identify it.

(a) Relevant

(b) Accurate

(c) Timely

(d) Confidential

34.3. Fit&Fine gym provides unique membership-id and PIN number as an access control mechanism to its customers to avail the facilities provided through Gym aggregator service app. From the following controls, identify the Application control under which this specific access control mechanism falls.

(a) Physical Control

(b) Boundary Control

(c) Communication Control

(d) Management Control

34.4. In purview of above case scenario, there can be a possibility that any registered gym with Fit&Fine Gym aggregator online service may deny the terms and conditions of the agreement done between the two. Which type of risk is associated with this e-Commerce transaction?

(a) Lack of authenticity of transaction

(b) Problem of anonymity

© The Institute of Chartered Accountants of India

(c) Repudiation of Contract

(d) Privacy and security

34.5. In purview of above case scenario, customer can pay his/her membership fees online through credit card to Fit&Fine. Which risk is taken care in case the Banking system key control is established that transaction cannot be made if the aggregate limit of out- standing amount exceeds the credit limit assigned to customer?

(a) Credit Line setup is unauthorized and not in line with the bank's policy.

(b) Credit Line setup can be breached.

(c) Masters defined for the customer are not in accordance with the Pre-Disbursement Certificate.

(d) Inaccurate reconciliations performed.

Answer Key

Question No.	Answer
34.1.	**(b)** Compliance Risk
34.2.	**(d)** Confidential
34.3.	**(b)** Boundary Control
34.4.	**(c)** Repudiation of Contract
34.5.	**(b)** Credit Line setup can be breached.

35. XYZ is a well - established food chain with ten branches at different locations within Delhi. The company wants to come out with an IPO (Initial Public Offering). The Management asked the Financial Manager to present a report pertaining the benefits, risks, and control objective and above all if there is any change required in the working of food chain.

XYZ has decided to buy software which will be an online assistant to customers and will provide them complete detail about the IPO and solve their queries. In order to avoid any delay in its operation, XYZ has bought the digital signatures for its authorized members of

© The Institute of Chartered Accountants of India

management. Furthermore, XYZ decides to give benefits/preference to its regular customers who had visits to any of its food chain regularly since last six months. Therefore, the company decides to get the personal details of such customers like phone number, date of birth and date of wedding anniversary etc.

To attain a safe and secure working environment for its customers as well as its employees, XYZ takes a firm decision to implement certain controls to avoid any unlawful activity defined under provisions of IT Act, 2000. XYZ follows Customer Relationship Management (CRM) practices; hence, it is famous to take care of its customers and provides them good services.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos. 35.1. to 35.3.

35.1. In purview of case scenario, XYZ food chain follows CRM practices to manage its relationship with its customers. Which of the following is not the key benefit of CRM module?

(a) Helps to take actions needed to measure quality.

(b) Gives an idea to company about customer wants, needs and patterns of purchase.

(c) Sharing of customer data between different departments will enable them to work as a team.

(d) Enables the company to identify the correct time to market its product to customers.

35.2. The management of XYZ food chain has shown its concern over the condition in case any of its employees dishonestly make use of electronic signature of authorized Committee member of the management. Identify the section from IT Act, 2000 that will help XYZ to deal with this situation.

(a) Section 43

(b) Section 66C

(c) Section 66E

(d) Section 66B

© The Institute of Chartered Accountants of India

35.3. The management of XYZ food chain collects the information about various small restaurants, makes them its partners, and sells their food-items under the name of his own start up. Under which category of e-market, the XYZ food chain model comes?

(a) Virtual Community

(b) Buyer Aggregator

(c) e-Shops

(d) e-Auctions

Answer Key

Question No.	Answer
35.1.	**(a)** Helps to take actions needed to measure quality.
35.2.	**(b)** Section 66C
35.3.	**(b)** Buyer Aggregator

© The Institute of Chartered Accountants of India