INTERMEDIATE COURSE

PAPER : 7A

Enterprise Information Systems

BOOKLET ON MCQs & CASE SCENARIOS

BOARD OF STUDIES

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

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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.

The Board of Studies, through this release of booklet wishes to create awareness amongst the students about the various significant strategies and techniques relating to information technology. As part of its continuous endeavor towards enrichment of knowledge, Board of Studies, had decided to bring out a booklet on Case Scenarios and Multiple Choice Questions under Paper 7A: Enterprise Information Systems of Intermediate Course. Being the part of examination, this initiative 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 2021 Examination and onwards.

Wishing you happy reading!

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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 the issues 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 _____ from following options to overcome the problem.

   (a) Core Banking Systems

   (b) Strategic Level Systems

   (c) Business Process Automation

   (d) Expert Systems

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) Environmental

5. Gigs and Gigs is the food court in a shopping mall. It 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 fresh MCA and doing internship 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

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 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 processes involved in Human

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

(a)   Training and Development

(b)   Career Development

(c)   Leadership Management

(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 which involves documentation as well. Which of the following is not a benefit of documentation of Business Process Automation 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 ads were done to prevent company from which damage?

(a)   Strategic

(b)   Operational

    (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.   Mr. Ajay as an internal auditor of steel company 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)   Turn back

    (b)   Transfer the risk

    (c)   Terminate/Eliminate the Risk

    (d)   Treat/ mitigate the risk

17.   In the bi-annual meeting of DEF Hotel Group, the senior officials are discussing risks that could prevent 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)   Data risk

    (c)   Operational risk

    (d)   Infrastructure risk

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

      (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 loan given 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 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 their data after BPA.

      (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

      (d)   Godown

22. XYZ Ltd. is an ink manufacturing company that implemented enterprise-wide information system to coordinate all resources and activities needed 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 statement 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 are not controlled by the user and depends on the changes recommended by the government time-to-time?

    (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 software developer installed application software for attendance system of employees in Raj and sons Ltd. During the briefing session about it, he made certain statements mentioned below. Out of these, choose the statement that is 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

(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 referred often 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

(b)   Receipt note

(c)   Sales

(d)   Purchase

33.   In Accounting System, various types of vouchers are required to maintain the transaction within organization. Which of the following transactions are 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 accountant of an engineering college, works on an 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 an 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 during this work.

(a)   Contra

(b)   Receipt

(c)   Journal

(d)   Payment

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 the 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 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.

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 many 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

   (b)   Flow Control

   (c)   Channel Access Control

   (d)   Physical Component Control

43.   A _____ memory which is volatile in nature and can read and modify the information is 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 transmission in networking, _____ technique that converts data into a secret code for storage in databases and ensures that the transmission is secure.

(a)   Encapsulation

(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 control under Application Controls is responsible to do so?

(a)   Boundary Controls

(b)   Input Controls

(c)   Communication Controls

(d)   Processing Controls

50.   Under Application Controls, _____ 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 are mentioned some of its benefits, except one. Identify it.

(a)   Access to social data from search Engine.

(b)   Early Identification of risk 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

(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 the system's transactions. Which audit tool does it 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 he performs 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 at which the data is collected from all the different sources to initiate the process.

(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 belong 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 CPU.

(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 hardware and user be it a Smartphone, tablet or PC. Which of the following is not an Operating system?

(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 technology product developer at FEGO Ltd. suggested the company to manufacture a model of self-driving car based on image and text recognition. This is the 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 describe 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 _____.

(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 access 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.

   (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

(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 they provide 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 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?

    (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

(c)   Database Layer

(d)   Client/User Interface

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

    (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 only 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 got 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 IPO in 2017. After two years in 2019, the company earned a huge profit. In March 2019, the company distributed the dividend to all its customers. 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.

87.   Which of the 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

(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)   Identify theft

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

(c)   Stealing computer resource and communication device

(d)   Violation of privacy

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)   Securing Personal Information

(d)   Identifying sensitive information

90.   Which of the following activity risks the banking sector of India?

(a)   Breaking into ATM

(b)   Physical theft at branch

(c)   Software piracy

(d)   Altering name in demand draft

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 is connected with many modules of Back-end and Front-End applications, 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

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

97.   Which of the following section of IT 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.   Which of the following is key component of banking business with controls?

   (a)   Organization Structure

   (b)   Planning

   (c)   Layering

   (d)   Integration

99.   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.   _____ of Core Banking System 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

Answer Key

Question No.	Answer	
1	**(b)**	Identify manual processes
2	**(b)**	Deals with the core business and value chain
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/Eliminate 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	**(a)**	It is installed on the hard disc of the computer of user.
28	**(a)**	Business Reporting
29	**(b)**	Online Analytical Processing
30	**(d)**	Production Planning
31	**(a)**	Cloud-based
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.
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	(a)	Electronic Clearing Services (ECS) Debit
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 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

CASE SCENARIOS

1. Ind Milk Dairy is an Indian based Asia's largest dairy product company 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 April 2020. Other than retail sales, a 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.

- 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 company Ind Milk Dairy decides to have systems in the 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)

   (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:

♦ M/s. BA Child Welfare Association is an NGO that is operating from Bangalore since last three years. It had opened a current account with the bank's Panjim branch on 12th December 2017.

The auditors noted that several small value cash deposits have been made from NGO's Bank account to a current account over the past one year, the ledger summation being ₹ 29.49 Lakhs for the year. 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 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.

♦   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.

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, the bank will be required to maintain records of which type of following nature and time frame?

(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 NGO 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)   Know Your Customer non-compliance.

(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 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 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 purging 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.

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)**	Know Your Customer non-compliance
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) 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 wants to now monetize 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 on the website www.onlinescrap.com to external parties as well as registered vendors. The management defined following parameters for the growth of company:

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?

   (a)   E-auction

   (b)   Buyer Aggregator

   (c)   Virtual Community

   (d)   E-Shop

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

   i.   Order enquiry

   ii.   Order booking

   iii.   Order fulfilment

   iv.   Invoice generation

   v.   Delivery GRN

   vi.   General Ledger Accounting

   vii   Collections

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

   (a)   i – ii – iii- iv – v–vi – vii

   (b)   ii – iii – iv – v – vii—vi-i

   (c)   ii – iii – v – iv – vii – vi

   (d)   ii – iii – v – iv – vi – viii—i

3.3.   Which of the following clause will not be a part of the KKLP's Service Level Agreement (SLA) in case SaaS (Software as a Service) model is provided to them by the 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.

(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 is responsible to ensure that a premium registered vendor does not download, copy or extract any information from its website. If someone does this, he shall be liable to penalty. Which of following section of IT Act, 2000 would be helpful for this?

(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)**	ii – iii – v – iv – vii – vi
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 grew as a big brand in the market. 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 to sell its products across the country and initiated selling its products through online mode to reach customers worldwide. Hence, the company started e-Business through website and 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 employees 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 also 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 appointed an IS auditor to ensure the completeness, accuracy and validity of data.

One day, IT Manager of the company observed that while accessing the home page of company's website; some pornographic content was displayed on its home page. The manager informed the management of the company which in turn reported about this to cyber security cell. On investigation, it was found that Mr. A, a team member of IT Department, intentionally hosted the objectionable content on the company's website and also concealed some important information.

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 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 Pornography

     (d)   Virus

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.

     (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. A punishable?

     (a)   Section 65

     (b)   Section 66B

     (c)   Section 66C

     (d)   Section 66D

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.	(a)	Section 65

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 provide satisfactory services to its existing customers. These schemes are developed by top management based on purchase patterns, market trends and association of purchases done by customers. The company is using software for this, which provides the details that enable the top management in efficient decision making.

PQR Ltd. maintains all the data in 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 of software 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 up gradation 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

(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 huge data that is available from its competitors. It also helps PQR Ltd. to offer various discounts and schemes. 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 system. 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 number and a membership card 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.

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

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

   (d)   Membership number can be used to see all the purchases 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 innovative products keeping in mind the different needs of the people. It has more than 300 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 life style at relatively low premium and certain tax benefits as per the applicable Tax Laws.

With the goal to grow, the company has given the facility to buyers to purchase its plans online. All the data related to investors, claims, policies and marketing agents are stored in a 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 was reviewed by IS auditor since last 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 reported to Management were 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 availability 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. A 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 policyholder system becomes less vulnerable to frauds like funds withdrawal because of false claims.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 6.1 to 6.5.

6.1. According to IS Auditor, some controls need improvement to ensure the availability of system in case of data loss due to unauthorized access and equipment failure etc. so that the company can retrieve the files. Which of the following strategies should be adopted by XYZ Company for this purpose?

  (a) Grouping the similar transactions

  (b) Logging input transactions

(c)   Dual recording of data

(d)   Periodic dumping of data

6.2.   The IS auditor has found that Mr. A 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. A punishable?

(a)   Section 66B

(b)   Section 66C

(c)   Section 66D

(d)   Section 43

6.3.   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

6.4.   In purview of above case scenario, which type of audit routines can be recommended by IS auditor 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

6.5.   The company started using wearable smart watches and bands that provide the medical condition of individual who wishes to buy life insurance. This initiative of the company is a part of their risk management strategy. Identify it.

(a)   Tolerate the risk

(b)   Terminate the risk

(c)   Transfer the risk

(d)   Treat the risk

Answer Key

Question No.	Answer	
6.1.	**(d)**	Periodic dumping of data
6.2.	**(b)**	Section 66C
6.3.	**(a)**	Proxy Server
6.4.	**(d)**	Audit Hook
6.5.	**(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 on 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 outside 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. There is a need of legal action against them.

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 theft

7.2.   In purview of above case scenario, ABC Company wants to use some technologies to be on 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

   (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 multispecialty hospital that provides best known healthcare facilities to large number of patients. The hospital has three more branches at 3 different states. However, all the branches record their related data including personal data about the patient and other comprehensive medical data; medical services 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. But, now the management of the hospital wants to streamline and optimize all its business operations in its branches. After consulting the experts, the hospital 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.

- 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, the administrative staff could track the status of funds, patients, doctors and facilities 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, doctors and patients in order 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.

Recently, the hospital is also facing many connectivity and security issues in its intranet due to which the data transmission between its branches has become unreliable. Hospital management considers various risks associated with this, including cyber risks and infringe of various IT laws and also puts controls in place in response to these risks. It puts controls in place to ensure that either failures do not impact or have a minimum impact on hospital operations and services. It also keeps a check that no unlawful activity can take place.

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. Which type of control mechanism is implemented by ABC hospital to restrict its system access to authorized users only?

(a) Segregation of Duties

(b) Rule Based Access Control

(c) Privacy policy

(d) Role Based Access Control

8.3. ABC hospital considers various laws related to system automation with the main objective of securing the confidential data of its patients. Which of the following is not included in Sensitive Personal Data Information for ABC hospital?

(a) Patient history

(b) Doctor's Experience

(c) Medical reports

(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

(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)   Accounting

(d)   Budgeting

Answer Key

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

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

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

iii   Access controls to be based on user preference basis.

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   Accounts Payable Module will be code written auto-rules for payment cheque creation.

vii   The COO wants to implement a VOIP (Voice over IP) system for efficient time management.

viii   The COO also wants to have a penalty enforced for 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 9.6.

9.1.   In context with the case scenario, the statement 'Access controls to be based on user preference basis'; in your opinion is_____.

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

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

   (c)   False, as access controls 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 HAK Systems Private Limited 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 HAK Systems Private Limited is that of Cloud-based server solutions. In this context identify, which of the following statement is correct for an installed application software?

   (a)   Installed application software will be more efficient than a cloud-based application based on performance parameter.

(b)   The CAPEX (Capital Expenditure) spent for an internal software application will be higher to the CAPEX for a cloud-based application, but OPEX spend will be lower than the cloud-based application.

(c)   Definite service agreement is recommended in installed software application.

(d)   Maintenance will be the defined liability of the installed application service provider.

9.4.   In purview of above case scenario, Accounts Payable Module is suggested to be used. Which of the following is one of the fundamental rules adopted in an Accounts Payable automation set up for payment to vendor?

(a)   Vendor Invoice, PO and GRN to be matched to PO terms and rates, and vendor master table for payment cheques preparation.

(b)   Vendor PO, Invoice to be matched to the GRN for terms and rates for payment cheque preparation.

(c)   Vendor Master Table to be checked with the PO and supply terms to be matched to the GRN for payment cheque preparation.

(d)   Vendor Invoice to be matched to Vendor master table, and if validated, the ledger table to be matched to invoice value and then the GRN to be validated for payment cheque preparation.

9.5.   HAKPL 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 e-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)

9.6.   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 up to 3 years and penalty up to ₹ 5 lakh or with both under Section 66.

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

(c)   Imprisonment for a term upto 3 years and 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.	**(a)**	Installed application software will be more efficient than a cloud-based application based on performance parameter.
9.4.	**(b)**	Vendor PO, Invoice to be matched to the GRN for terms and rates for payment cheque preparation.
9.5.	**(d)**	Communication as a service (CaaS)
9.6.	**(a)**	Imprisonment for a term up to 3 years and penalty upto ₹ 5 lakh or with both under Section 66.

10.   Small Bank Limited (SBL), Bhopal (MP) is a registered as a Small Finance Bank (SFB) with Reserve Bank of India (RBI), New Delhi. SBL has been provided license under the Government of India's initiative to promote financial inclusion. SBL has started operations in the April 2018 and has 100 branches spread across three states including MP, Rajasthan and Tamilnadu.

SBL balance sheet as on 31/03/2019 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 Current & Savings Account (CASA) Accounts	₹ 1,000/- Crores
5.	No. of CASA account holders	₹ 2,50,000 Lakhs
6.	Employees	450

ISSUE

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

The software was purchased by bank without going through the formal process of benchmarking the software to bank's strategic and future business needs. SBL had launched its operations with lot of publicity and fanfare.

Few systems related issues came up when an article in a national daily newspaper got published. The article claimed that the SBL systems were not correctly crediting the interest to all the 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:

1.   Name of Customer: Mr. X, Satna (MP)

2.   Account details: The newspaper published the account statement for month of June 2018.

3.   Interest credited by bank: ₹ 150.70

4.   Interest as per calculation: ₹ 150.75

Example 2:

1.   Name of Customer:Mr. J, Salem (Tamilnadu)

2.   Account details: The newspaper published account Statement for the month of July 2018.

3.   Interest credited by bank: ₹ 3,825.20

4.   Interest as per calculation: ₹ 3,825.25

The newspaper article ended by stating that bank has 2,50,000 account holders. If each customer loses ₹ 0.05 (Five Paisa) each month, that means bank is gaining ₹ 12,500/- per month meaning ₹ 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 called for a high-profile meeting and discussed the matter. At the end of the meeting, the management took a decision to get the bank's system audited by a system expert. Subsequently, Mr. A was hired to conduct the audit which he completed and submitted a report stating that;

i.   Many important reports like Asset - Liability Management (ALM) Report, Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR) reports are not being provided by the CBS. SmICBS does have capability to add a new report that may be needed in future, if RBI mandates the same.

ii   SmICBS does not have any backup facility in case of any disaster or natural calamity.

iii   SmICBS does not have its m-banking facility.

iv   Finally the system auditor suggested that SBL needs to go for a new CBS.

SBL board immediately decided to change the software. SBL this time went through the due process of software selection and implemented

new software. Having done this, SBL Board had organized a public launch function for the new software by inviting ministers of technology from all three states where bank has its operation.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 10.1 to 10.5.

10.1.   CBS Implementation needs to be controlled and monitored. SBL board's decision to implement CBS lacks which critical aspect of CBS deployment?

(a)   Approval

(b)   Selection

(c)   Planning

(d)   Testing

10.2.   ALM, CRR and SLR are not being generated from SmlCBS. These reports are important for management decision making. All these reports shall be classified as_____.

(a)   Daily Reports

(b)   MIS reports

(c)   Exception Reports

(d)   Balance Sheet Report

10.3.   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

(b)   Vulnerability

(c)   Threat

(d)   Impact

10.4.   The newspaper national daily pointed the error in interest calculation where each customer loses ₹0.05 (Five Paisa) each month. It is most likely to be classified as_____.

(a)   Spoofing

(b)   Bomb

(c)   Piggybacking

(d)   Rounding Down

10.5.   System Auditor's report highlighted that SmICBS does not have a live back up. 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)**	MIS reports
10.3.	**(b)**	Vulnerability
10.4.	**(d)**	Rounding Down
10.5.	**(d)**	Security Management Control

11.   LMN Co. manufactures home decorative products since 2006. Over the past few years, since 2014 rising manufacturing costs have significantly eroded the company's operating profit margins. Currently, the machined manufacturing process and manual labour process represent 30 percent and 70 percent of the total production costs, respectively.

In order to combat this negative operating trend, company's management hired ENY Co. a consulting firm to consider both Business Process Management and Business Process Reengineering and asses the benefits, risks, and control objectives.

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

The firm also completed an analysis on Business Process Reengineering plan that would eliminate 80 percent of the current production workforce over the next three years and fully automate the production process over cloud server, with the exception of 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 Co. submitted both the plans to LMN Co. 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 11.5.

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

   (a)   Employee

   (b)   Effectiveness

   (c)   Efficiency

   (d)   Economy

11.2. In purview of above case scenario, if the management of LMN Co. would like to implement an information system that 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 Support System

(c)   An Office Automation System

(d)   An Enterprise Resource Planning System

11.3.   ENY Co. recommended general controls for implementation of IT Systems in LMN Co. Which of the following statements 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.   While discussing both the plans submitted by ENY Co., If LMN Co. Management opined that they would implement e-commerce environment that require Information Technology (IT) system to be available on a continuous basis. This decision of management requires to put more emphasis on which of the following aspects of the planning than in a traditional business?

(a)   Maintain appropriate written source documents so the data can be re-entered if it is lost or compromised.

(b)   Maintain redundant systems for instant availability to assure the flow of transactions.

(c) Review additional expenses to obtain the required amount of business interruption insurance coverage for the organization.

(d) Assure that appropriate data backups are stored in an off-site location.

11.5. As per the recommendations of ENY Co. on IT related Internal controls, the management of LMN Co. decided to implement segregation of duties as one of the primary IT Internal Control. Which of the following statements best describes the importance of segregation of duties?

(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 is to encourage any one person from having total control over all aspects of the transaction.

Answer Key

Question No.		Answer
11.1.	**(a)**	Employee
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)	Maintain redundant systems for instant availability to assure the flow of transactions
11.5.	(a)	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 specializing in finance and costing analytics with a workforce of fifteen data scientists and fifty analysts. It has served all major hotel chains of the country and has been successful since its inception.

A client of Ridonix, Ghoomo Hotels was going through a huge cash crunch and on the verge of closure. They approached Ridonix to find solutions to reduce costs and implement 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 are the observations of Ridonix.

♦ There were multiple online booking partners to book rooms to whom high commissions were being paid, and no proper checks on payouts to these booking partners were in place.

♦ Further, there were three banking gateway partners associated and they charged higher than industry standards as their convenience fees.

♦ The booking system was also internally flawed as it could not manage cancellations, wherein the system reported rooms as booked, while they had actually been cancelled online.

♦ A major confidentiality breach was also reported, where two employees had access to confidential data of customers and their preferences, and they were selling that data to Ghoomo's competitors.

♦ The entire internal reporting system was redundant and needed a corrective update.

The system advisory report from Ridonix suggested Ghoomo:

a.   to setup a new information system, i.e. to call in change management of the existing reporting software.

b.   to implement a strong ERP system to keep a track of room inventory.

c.   to save costs in banking transactions, Ghoomo was advised to go for an integrated payments systems rather than relying on multiple gateways of multiple banks.

d.   to reflect timely and accurate cancellation of rooms in the system, Ridonix advised putting an audit tool in place and executing it frequently to keep a check on errors.

To safeguard the business from data privacy litigations in future, Ridonix also advised Ghoomo to get legal contracts drafted by legal experts and put them up on their website and application.

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.   Which of the following could be cheapest and most effective in implementing integrated payments channel for Ghoomo's payments?

(a)   Aadhar Enabled Payment Services (AEPS)

(b)   UPI based application integration

(c)   Crypto Currency

(d)   Mobile Wallets

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

(a)   Information Technology General Control

(b)   Application Control

(c)   Residual Risk Control

(d)   Data Privacy Control

12.3.   One of the biggest challenges for Ghoomo is auto-cancellation of rooms and no corresponding update in the system, which leads to huge loss of revenue. Which of the following would be best suited for Ridonix's suggested advice to keep a check in new system?

(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)   Firewall to restrict access to online portals

(c)   Role Based Access Controls

(d)   Physical Access Controls

12.5.   Mr. Rajesh who is an employee of Ghoomo misused the data of customers. Under which section of IT Act 2000 can he be punished for misusing and selling confidential data he had access to?

(a)   Section 66 of IT Act, 2000

(b)   Section 66C of IT Act, 2000

(c)   Section 66D of IT Act, 2000

(d)   Section 66E of IT Act, 2000

Answer Key

Question No.		Answer
12.1.	**(b)**	UPI based application integration
12.2.	**(a)**	Information Technology General Control
12.3.	**(d)**	Integrated Test Facility (ITF)
12.4.	**(c)**	Role Based Access Controls
12.5.	**(d)**	Section 66E of IT Act, 2000

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 a few challenges as they plan to scale up.

Kumari G., the founder of the 1k Pvt. Ltd., hired a market research firm to ratify her gut feeling, 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 was indeed a potential market with 10X growth visibility in coming 5 years.

The Company has been quite adamant in finding internal flaws and with recent plans of scaling up operations; a special meeting was called on to find solid solutions of identified concerns. The major concern of the management was regarding the Purchase Department. Firstly, delays in posting accurate raw material inventory position were creating undue pressure on the production line. Proper reporting mechanism was suggested to be put in place. Second, 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 essence of being of new age company focused on teenagers is also mandated in its office campus. The employees are encouraged to bring their own devices at work and are even 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 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 13.5.

13.1. Which of the following methodology of Data Analysis, the market research firm adopted to validate using statistical techniques on whether the teenage segment was indeed a potential for 1k Pvt. Ltd.?

    (a)   Exploratory Data Analysis

    (b)   Confirmatory Data Analysis

    (c)   Qualitative Data Analysis

    (d)   Quantitative Data Analysis

13.2. To save on IT infrastructure costs, 1K Pvt. Ltd. encouraged some modern practices for its employees. Which of the following would not be a risk associated with those practices?

    (a)   Network Security Risk

    (b)   Loss of Device Risk

    (c)   Reduced IT Support Risk

    (d)   Application Malware Risk

13.3. Which of the following Phase in Inventory Management is the pressure point for 1K Pvt. Ltd.?

    (a)   Production Phase

(b)   Ordering Phase

(c)   Delivery Phase

(d)   Sales Return Phase

13.4. The flow of transactions 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

iv.   Request flows to Merchant's Server

v.   Updated status on Merchant's Server

vi.   Confirmation sent to Payment Gateway

vii.   Request accepted and approved

viii.   User is notified about payment and order is placed

What would be the correct sequence of the 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)

13.5. The tool to be used to protect 1k Pvt. Ltd. from cash leakage in the system would not be able to ensure which of the following?

(a)   Detect Unauthorised Access

(b)   Block Cash Outflow Ledgers

(c)   Reconstruct flow of Events

(d)   Monitor unauthorised /authorised user activity

Answer Key

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

14.   ABC Ltd. a leading manufacturer of the Water Purifiers all over the country having ERP System decided to launch a new Wi-Fi enabled water purifier "Purity" with UltraViolet Filters and advance technology. Purity can be connected with the home Wi-Fi and when the purifying agents deplete, may inform the service agents of the company. The management decided to outsource the service agent work to different local agencies. The company was facing financial difficulties in launching the product. For this, they had taken a bank guarantee from the Amy Bank, for making the payment of raw material purchased from the supplier.

The company also changed the collection of payment policy for debtors and giving more payment options as well as introducing the discount policies on bulk purchases and timing of the payments. Additionally, the company adopted online marketing rather than paper-based marketing and online invoicing to cut down the paper wastage as well as to make an addition to the cost-saving.

To increase the awareness of Purity and ease to its customers to use Purity, the company decided to register itself on famous shopping applications to deliver the product to customers at their doorsteps. Now, the customer can purchase Purity online as well as offline. They also decided to open cash on delivery option for its customers.

Based on the facts of the case scenario given above, choose the most appropriate answer to Q. Nos 14.1 to 14.5.

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. These multiple sub-processes are part of which business process?

(a)   Customer Order Fulfilment

(b)   Order to Cash

(c)   Purchase to Pay

(d)   Fixed Assets

14.2.   As the Bank Guarantee is taken by the company, ABC Ltd., it is required to pay certain amount to the Amy Bank which is the income for the Bank. The amount which the Bank receives from the ABC Ltd., can be termed as-

(a)   Interest Income

(b)   Discounting Income

(c)   Commission Income

(d)   Guarantee Charges

14.3.   Since ABC Ltd. decided to outsource the working of the service agents, the company is required to establish the controls. 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.   As ABC Ltd. is having ERP system, which among the following department may help ABC Ltd. in forecasting sales and production plans of the product "Purity"?

(a)   Master Data

(b)   Material Requirements Planning (MRP)

(c)   Distribution Resource Planning (DRP)

(d)   Sales and Operations Planning (SOP)

14.5.   ABC Ltd. had adopted online marketing rather than paper-based marketing and online invoicing to their customers. Which one of the following works on 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)**	Sales and Operations Planning (SOP)
14.5.	**(d)**	Green Computing

15.   KPL Bank the new entrant in the banking sector, 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 bank decided to adopt 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 doorstep banking services to senior citizens and differently-abled customers, wherein the, the bank

may help these people in deposit and withdrawal of the cash, and other banking services at their doorstep.

♦ A google 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 different loans and savings options.

♦ Now, the bank is ready to adhere with 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 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) Negotiable Instrument Act, 1881

(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. 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)   XBRL

(b)   MIS Report

(c)   Data Analytics

(d)   Grid Computing

15.4.   As per the above, the Google 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

(d)   Green Computing

15.5.   KPL Bank is using the Core Banking System, in this system 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)   Back end Application

Answer Key

Question No.	Answer	
15.1.	**(b)**	Banking Regulation Act, 1949
15.2.	**(d)**	Infrastructure Control
15.3.	**(c)**	Data Analytics
15.4.	**(a)**	Cloud 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 detail of all policyholder, premium collection, 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. R was caught sharing confidential records of Mr. Z (who was insured under Mediclaim Policy) to Satyam Cell Marketing Global Private Limited.

Mr. S, appointed as an IS auditor of NIGHPL, conducted it's 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 report to Board of Directors and recommended an immediate attention of Management of the NIGPL to address the issues as specified in the report.

After considering the recent incident of Mr. R and recommendations of IS auditor Mr. S; 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 of the meeting were as follows:

♦   Company will approach Big 4 System Development & 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.

♦   Company also decided to implement Balance Scorecard, a strategy performance management tool to identify and improve various internal business functions and their resulting external outcomes.

♦   None of the employee can access detail of customer without prior permission of IT head.

Mr. SK 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. The company went-live with new ERP system. 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 responsible for paying compensation to Mr. Z for failure to protect his data?

    (a)   Directors of Satyam Cell Marketing Global Private Limited

    (b)   Directors of New India Global Healthcare Private Limited

    (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 to make 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.

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, 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 their 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 has its own limitation. Which of the following however 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 a policy holder; under IT Act, 2000, who will be held liable to pay compensation for failure to protect policyholder's data?

(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 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.

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, human care, health care and stomach 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 such decline in sales, XTC decides to appoint a consultant. XTC 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 in six months to submit the report. Ms.VA, submits her reports in two parts. Part one deals with identification of key reasons for business decline. Part two is solutions to identified problems.

Ms.VA found 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. Sales head at HO takes gives the necessary instructions. This process is having many human interfaces leading to delay in supply of material once email has been sent for orders, and many times the received goods and ordered goods do not match.

Ms. VA applied the principles of risk management and suggested following solutions:

1.   XTC needs to implement a new system. The proposed system shall integrate all departments of the company including key departments; Sales and Distribution & Material Management & Financial Management & Production, Planning and Costing and Human Resources. This shall help XTC 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, XTC limited plans to preload reorders levels for various products for each wholesaler individually. This will help better inventory management. As soon 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   Expert used risk management principles to suggest a solution. Risk management terminologies include all except..........

(a)   Vulnerability Assessment

(b)   Threat Assessment

(c)   Risk Sharing

(d)   Exposure

18.2   Use of Mobile APP by employee is convergence of two emerging technologies referred to as Mobile Computing and BYOD. The common risk associated with both technologies include

(a)   Security Risk

(b)   Bandwidth

(c)   Application Risk

(d)   Health Hazard

18.3   Ms. VA proposed a system that shall integrate all key departments of the company. Identify from the following which type of system she is proposing?

(a)   Business Process Reengineering

(b)   Enterprise Resource Planning

(c)   Business Research Automation

(d)   Business Continuity Planning

Answer Key

Question No.	Answer	
18.1	**(c)**	Risk sharing

18.2	**(a)**	Security Risk
18.3	**(b)**	Enterprise Resource Planning

19. VK Textile Cotton Fabrics Private Limited is an export-oriented unit established in the year 2016. Company manufactures Cotton Fabrics in India and exports it to some foreign countries also. In December, 2019; Company acquired a manufacturing unit of Dubai (UAE). Presently, 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 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 includes European Countries and Gulf Countries and Asia-Pacific Countries.

♦ With best quality product under reasonable price i.e., called value for money for its customers worldwide.

♦ Spreading out e-commerce business activities and online presence worldwide.

♦ Development & Implementation of IS security policy.

♦ Adoption of new and emerging IT technologies includes Cloud Computing, Mobile Computing, Green Computing etc. for the company.

♦ Upgrading to all business processes through latest technology & trends & keeping all records and documents in electronic digitalized form.

♦ 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.

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 Avoidance

    (c) Risk Mitigation

    (d) Risk Acceptance

19.2 Which of the following 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 various aspects of application of any transaction?

    (a) Database Security

    (b) Network Security

    (c) Application Security

    (d) Operating System Security

Answer Key

Question No.	Answer	
19.1	**(c)**	Risk Mitigation
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 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 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. J 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:

♦ All employees of Accounts Departments have been using the Super-User Password of the previous General Manager (Finance). For past six months, after the new joinee has joined, the audit logs of some dates are missing and not available.

♦ 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.

♦ There is no effective internal control system regarding user management, creation and modification of accounting voucher.

♦ Company has no emergency plan with an outdated list of names to contact in case there is some type of emergency within the company.

- 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 20.3

20.1   An accountant has rights to create as well as modify accounting vouchers. Which of the following principle has not been followed by the company in the given scenario?

    (a)   Confidentiality

    (b)   Availability

    (c)   Integrity

    (d)   Segregation of Duties

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

Answer Key

Question No.	Answer	
20.1	**(d)**	Segregation of Duties
20.2	**(b)**	Use of Integrated Test Facility (ITF)
20.3	**(d)**	Section 66D

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 is accessed by users from various geographical locations anywhere. However, it's current system is unable to cope up with the growing volume of transactions. Frequent connectivity problems, slow processing and a few instances of phishing attacks and virus attacks were also reported. 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 for SMS Limited in order to 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 these 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 is also planning to take various types of insurance coverage for safeguarding of their 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   A few instances of phishing attacks were also reported in SMS Limited. Which of the following section of Information Technology Act, 2000 fixes liability on SMS Limited to secure data of their customers?

(a)   Section 43A

(b)   Section 46

(c)   Section 66D

(d)   Section 75

21.2   Suppose you are appointed as an IS auditor of SMS Limited for auditing the Information System. You are determining what controls are exercised to maintain data integrity. 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 is also planning to take various types of insurance coverage for safeguarding of their assets and to avoid unexpected future liabilities due to uninterrupted event or disaster. These Insurance Coverage falls under which type of a specific risk mitigation strategy?

(a)   Terminate/Eliminate the Risk

(b)   Treat/Mitigate the Risk

     (c)   Tolerate/Accept the Risk

     (d)   Transfer/Share the Risk

21.4   Due to virus attack and phishing attack on Information System of SMS Limited, in order to protect its critical data from virus attack; it is decided that in future the access to the social networking site by its employees need to be limited. What type of risk response has the SMS Limited exercised?

     (a)   Terminate/Eliminate the Risk

     (b)   Treat/Mitigate the Risk

     (c)   Tolerate/Accept the Risk

     (d)   Transfer/Share the Risk

Answer Key

Question No.	Answer	
21.1	**(a)**	Section 43A
21.2	**(a)**	Data Resource Management Control
21.3	**(d)**	Transfer/Share the Risk
21.4	**(b)**	Treat/Mitigate 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 through 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 ABC Company. Mr. Raja 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

♦   Key Man policies not implemented

♦   Manual attendance registers and leaves record.

♦   Invalid data in Human Resource Computer System.

♦   Using of Social Networking Website like Facebook, Twitter etc. in office timings using computer resources of HR Department.

♦   Plan & Budget approved for development of Robust & Fully Automated Payroll Software but not implemented till date.

♦   Suggested to implementation of BYOD concept.

The CEO 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 will be treated as preventive control measure for ABC Company?

(a)   Employing qualifies 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 after 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, implementation of Bring Your Device (BYOD) policy makes 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

(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 located 200 retail stores all over India and launched Loyalty Card for its customers in which the customer data for the loyalty card issued by a retail store is picked from a form filed by the customer. 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. Any editing or modification can be done only by the manager. The retail store across India collecting customer data for loyalty programs consolidated into one database and accessible in from centralized IT server anytime anywhere and also Company maintained a separate fully equipped facility where the company can move immediately after disaster and resume business. Company Data Centre Housing about 350 employees are involved in handling business processes of the Company and for security reasons, Management decides to shift its network server and mail server to a secluded room with restricted entry.

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 Gold Silver Watch India Limited (GSWIL) decides to control the access to a 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 Gold Silver Watch India Limited (GSWIL) has a data centre housing about 350 employees involved in handling businesses processes of company. For security reasons, it 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 situation?

(a)   Manual Preventive Control

(b)   Manual Detective Control

(c)   Computerized Preventive Control

(d)   Computerized Corrective Control

23.3   In Gold Silver Watch India Limited (GSWIL), an IS auditor wants to collect evidences based on system user profiles. Which of the following can be used by the IS auditor to achieve this objective?

(a)   Continuous and intermittent Solution (CIS)

(b)   Audit Hooks

(c)   System Control Audit Review File (SCARF)

(d)   Integrated Test Facility (ITF)

23.4   If Gold Silver Watch India Limited (GSWIL) has been found negligent in handling personal information of customers then company's liability to damages is covered under _____.

(a)   Information Technology Act, 2000, Section 67

(b)   Right to Information Act, 2006, Section 43A

(c)   Information Technology Act, 2000, Section 43A

(d)   Information Technology Act, 2000, Section 66B

Answer Key

Question No.	Answer	
23.1	**(d)**	Preventive Control
23.2	**(a)**	Manual Preventive Control
23.3	**(c)**	System Control Audit Review File (SCARF)
23.4	**(c)**	Information Technology Act, 2006, Section 43A

24.   ABC Capital Finance Limited ('the Company or 'ACFL') was inaugurated on 21st July 2019. The Company is registered with the Reserve Bank of India (RBI) as a Non-Banking Financial Company vide. Certificate No. N-13.14.2019, Head Office/Corporate Office of the Company situated at Mumbai. 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 & 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 designed on fundamental principles – data security, data integrity, data availability and data scalability and has strict information security procedures. Company also entered into a reciprocal agreement with TBJ Capital Finance Limited (i.e., Internal Business Group Company) as one of its strategists in Disaster Recovery Planning. 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 technology capabilities across other areas such as mobile computing, cloud computing, and 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   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 entered into a reciprocal agreement with TBJ Capital Finance Limited (i.e., Internal Business Group Company) as one of strategy of Disaster Recovery Planning. Identify which of the following risk treatment approach does it indicate?

    (a)   Transfer/Share the risk or Risk Transfer

    (b)   Terminate/Eliminate the risk or Risk Avoidance

    (c)   Treat/Mitigate the risk or Risk Mitigation

    (d)   Tolerate/Accept the Risk or Risk Acceptance

24.3 XYZ Limited is engaged in providing Data Processing Service. It received a big contract from ABC Capital Finance Limited (Non-Banking Financial Company) for its various loan processing 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. XYZ Limited is using which Cloud Computing Service Model?

    (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 ABC Capital Finance Limited has effective internal control system that includes Segregation of Duties. Is Segregation of duties useful for Company? 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	**(c)**	Treat/Mitigate the risk or Risk Mitigation
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 some 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 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 out dated 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 at third party. The service level agreement was not renewed since last three years and also there is no security guard since last six month.

♦   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 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, Inspection and Supervision 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 observation made by NABARD and established the   following controls:

- Highly qualified IT personnel were appointed in every branch.

- Strict follow up and compliance of Information Security and Password Policy for all users.

- Fulfilled the mandatory requirement of two personnel 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 25.5

25.1   Inspection team observed a fraud of ₹ 2,49,587/- of 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   In the given case scenario, cashier had also the right to authorize the withdrawal cheque of account holder. Which type of issue related to Operational control in bank is covered under this?

(a)   Lack of appropriate segregation of duties

(b)   Lack of password control policy

(c)   Lack of supervision of branch manager

(d)   Lack of detection control over operation

25.3   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

(b)   Segregation of Duties

(c)   Need to know

(d)   Least privilege

25.4   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

25.5   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	**(a)**	Lack of appropriate segregation of duties
25.3	**(b)**	Segregation of Duties
25.4	**(c)**	Vulnerability
25.5	**(a)**	Preventive Control