

**QUESTION NO.1**

**(Q.NO. 1 TO 12 CARRIES 1 MARK EACH -  $12 \times 1 = 12$  MARKS)**

**(Q.NO. 13 TO 21 CARRIES 2 MARK EACH -  $9 \times 2 = 18$  MARKS)**

**QUESTION NO. 1 and 2 are compulsory and attempt any four out of remaining five questions.**

1. A large company is in process of creating a BCP framework. The Board of Directors have appointed you as a BCP consultant. Board has asked you to justify / reason out the main objective of BCP is to prevent / minimize losses. Your report shall highlight the reason for having BCP except this reason.
  - (a) Revenue Loss
  - (b) Reputation Loss
  - (c) Productivity Loss
  - (d) New Customer Acquisition
  
2. "Any set of computer instructions that are designed - to modify, destroy, record, transmit data or programme residing within a computer, computer system or computer network; or by any means to usurp the normal operation of the computer, computer system, or computer network;", is defined as in Information Technology Act.
  - (a) Computer Virus
  - (b) Computer Instruction
  - (c) Computer Hacking
  - (d) Computer Contaminant
  
3. GOI wishes to create a very secure access control mechanism for its nuclear installations. Authorised person can only enter after identifying himself / herself through the system. Identify which security measure shall provide the maximum protection.
  - (a) Bio-Metric Validation along with a PASS WORD
  - (b) Entry Card with a PASS WORD
  - (c) Bio-Metric validation for a person who has Entry card and PASS WORD
  - (d) PASS WORD with Entry Card

4. Which database model allows the definition of the data & their structures, storage and retrieval operations & integrity constraints that can be organized in a table structure?
- a) Hierarchical Database Model
  - b) Network Database Model
  - c) Relational Database model
  - d) Object Oriented Database Model
5. During an audit of financial transactions in an enterprise XYZ, it was found that simple errors of data entry were occurring when two digits that were either individual or part of larger sequence of numbers were reversed when posting a transaction. Which type of error is this?
- (a) Addition Error
  - (b) Truncation Error
  - (c) Substitution Error
  - (d) Transposition Error
6. In ABC, financial institution, the authorised officials identified existence of numerous accounts numbers of inactive accounts in their usage data of active customers. Complaint was reported to their IT team. Which type of controls can be exercised by the IT Team in the given case?
- a) Corrective Controls
  - b) Detective Controls
  - c) Preventive Controls
  - d) Compensatory Controls
7. Section 2(zh) of the Information Technology Act, 2000 (As amended 2008) defines "Verify". The definition establishes two important aspects for electronic records, namely\_\_\_\_\_and\_\_\_\_\_.
- (a) Non-Repudiation, Integrity
  - (b) Confidentiality, Integrity
  - (c) Availability, Integrity
  - (d) Confidentiality, Non-Repudiation
8. DRDO (Defense Research and Development Organization, GOI) developed India's own fighter jets by name TEJAS. TEJAS, is considered to be one of the most light and least costly fighter jet in its class. Which system development method was used by DRDO. (HINT: The fighter jets were being developed for the first time in India).
- (a) SDLC
  - (b) Prototype

(c) Incremental Model

(d) Spiral Model

9. Audit Trails document the actions, user details etc. Audit trails objectives include all except\_\_\_\_\_.

(a) Detecting unauthorized access to the system

(b) Facilitating the reconstruction of events

(c) Documenting changes to be made in system.

(d) Promoting personal accountability

10. Best definition to define a HUMAN being in terms of System.

(a) Physical, Probabilistic, Manual, Close

(b) Physical, Probabilistic, Manual, Close / Open

(c) Physical, Probabilistic, Automatic, Close

(d) Physical, Probabilistic, Manual, Open

11. Which is an acronym for 'Simultaneous peripherals Operations Online'?

a) Spool

b) Modem

c) Logging

d) Topology

12. Which is not the benefit of the application software ?

a) Addressing User's need

b) Less threats from virus

c) Regular updates

d) All the above

13. The database is implemented at the three levels- Physical, Logical and External. Which of the statement is true about these levels?

(a) Physical Level involves the implementation of the database on the hard disk.

(b) Physical Level defines the schema which is divided into smaller units known as sub-schemas.

(c) Logical Level defines the schema which is divided into smaller units known as sub-schemas.

(d) External Level deals with the nature of data stored and the scheme of the data.

14. Which is not the benefit of the application software?

a) Addressing User's need

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d) All the above

15. Which of the following statement is not true for Computer based Information Systems?
- a. All systems work for predetermined objectives and the system is designed and developed accordingly.
  - b. In general, a system has several interrelated and interdependent subsystems or components.
  - c. The goal of individual subsystem is of highest priority than the goal of the entire system.
  - d. The way a subsystem works with another subsystem is called interaction.
16. Which is not the characteristics of corrective controls ?
- a) Minimizing the impact of threat
  - b) Identifying cause of problem
  - c) Minimizing future occurrences of incidents
  - d) Surprise checks by supervisor
17. Why audit trails and logs important for Security Management?
- (a) To know where access attempts occurred and who attempted them
  - (b) To reduce unauthorized access to sensitive information
  - (c) To prevent modification or deletion of file content
  - (d) To prevent unintentional physical access
18. A bank has outsourced certain processes related to its personal loans unit to a third party vendor. As an IS auditor of the bank, what would you look for to assure yourself that non- public business information accessed by the third party vendor is protected and not misused?
- (a) A non -disclosure agreement signed by the vendor
  - (b) Check if all employees of the vendor are given enough training
  - (c) Verify if there are instances of data being misused earlier
  - (d) Check for a written acknowledgement from the vendor that they have read and understood the company's policy
19. A data centre housing about 200 employees is involved in handling businesses processes of multinational companies. 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 this?
- (a) Manual Preventive Control
  - (b) Manual Detective Control
  - (c) Computerised Preventive Control
  - (d) Computerised Corrective Control

20. A leading e-commerce provider is entering into the Indian market and is keen that the business is built on firm foundations to ensure its credibility to customers. Appreciating the importance of ensuring 100 % back-up for its Internet operations, it approaches a reputed vendor for advice on back-up facilities. The vendor analyses the customer's requirements and comes up with a solution. The vendor offers the customer a ready-to-use back-up facility based upon subscription & membership. Virtually every equipment / facility which the customer has in his main facility, including air-conditioning, would be replicated at the vendor's back-up location and it would be ready for instantaneous use in the case of an emergency, providing the customer the very dependable back-up facilities they seek but at a price. What is such a facility called ?
- (a) Mirror site
  - (b) Cold site
  - (c) Hot site
  - (d) Warm Site
21. In an accounting system, an accountant has rights to create as well as modify vouchers. This feature raises the risk assessment by auditor to higher level. As an auditor, you need to define which principle has not been followed?
- (a) Confidentiality
  - (b) Segregation of Duty (SoD)
  - (c) Availability
  - (d) Integrity

#### **QUESTION NO.2**

- A. Explain in brief the various features of electronic mail. **(6 MARKS)**
- B. Which are the areas that need to be reviewed by internal auditors as part of review of Governance, Risk and Compliance (GRC) ? **(5 MARKS)**
- C. Which are the different ways available for Logging on Facilities ? **(3 MARKS)**

#### **QUESTION NO.3**

- A. While developing a Business Continuity Plan, what are the key tasks that should be covered in the second phase 'Vulnerability Assessment and General definition of Requirement'? **(6 MARKS)**
- B. Explain the roles of the following entities in SDLC:
  - a) Project Manager **(1 mark)**
  - b) Quality Assurance **(1 mark)**
  - c) Domain Specialist **(2 marks)**
  - d) IS Auditor **(1 mark)**
- C. What skill sets is an IS Auditor expected to possess? **(3 MARKS)**

#### **QUESTION NO.4**

- A. Write a short note about private clouds and mention its characteristics and advantages. **(6 MARKS)**
- B. Mr. A has received some private information about Mr. B on his cell phone. He knows that this information has been stolen by the sender. He not only retained this information but also sends it to Mr. B and his friends. Because of this act, Mr. B is annoyed and his privacy is violated. Mr. B seeks your advice, under what sections of Information Technology (Amendment) Act, 2008; he can file an FIR with police against Mr. A? Advise Mr. B detailing the applicable sections of the Act. **(5 MARKS)**
- C. Discuss the 'Use of Electronic Records in Government and its agencies' in the light of Section 6 of Information Technology Act 2000. **(3 MARKS)**

#### **QUESTION NO.5**

- A. Define Risk Management and explain the major Risk Management Strategies. **(6 MARKS)**
- B. List some of the major ways of protecting the installation against water damage. **(5 MARKS)**
- C. If a third-party site is to be used for backup and recovery purposes, security administrators must ensure that a contract is written to cover certain issues. List them. **(3 MARKS)**

#### **QUESTION NO.6**

- A. In an enterprise, Information Technology (IT) Strategy Planning is basically deciding in advance 'what is to be done', 'who is going to do' and 'when it is going to be done'. Determine all the levels of managerial activities in an enterprise. **(6 MARKS)**
- B. In case of development of Business Continuity Planning (BCP), discuss the objectives of performing Business Continuity Planning (BCP) tests. Also, state the specific activities of BCP implementation phase. **(5 MARKS)**
- C. Identify the institution that formulates the monetary policy regarding the Indian Rupee. State the reasons for its establishment. **(3 MARKS)**

#### **QUESTION NO.7**

- A. Briefly discuss the Training, Awareness and Competency necessary for developing BCM. **(6 MARKS)**
- B. What are the major objectives of system requirements analysis phase in the SDLC? **(5 MARKS)**
- C. Describe the 'Tampering with Computer Source Documents' in the light of Section 65 of Information Technology Act 2000. **(3 MARKS)**