

Roll No.

Time allowed : 3 hours

Maximum marks : 100

Total number of questions : 6

Total number of printed pages : 4

NOTE : Answer **ALL** Questions.

1. ABC Ltd. is a steel manufacturing company having multiple production units and branch offices across the country. The company has Oracle's Enterprise Resource Planning (ERP) system implemented and fully operational. The ERP system is hosted on a Datacenter located in Mumbai. The company always promotes the Technology up-gradation and implements state-of-art technology in its office automation. The company has been winning the Best Manufacturing Company Award for the last 5 years. The company's Top Management wants to make the Datacenter as a protected system according to new Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018 as per the notification dated 22nd May, 2018 of Ministry of Electronic and Information Technology (MEITY).

Based on the above, answer the following :

- (a) Oracle is one of the biggest computer technology companies in the world. Discuss it along with its ERP key strengths. (5 marks)
- (b) As per the Rules, the company must constitute an Information Security Steering Committee (ISSC). What is the Composition of ISSC ? (5 marks)
- (c) What would be the responsibilities of ISSC of the company to compliance for having a protected system ? (5 marks)
- (d) What are the roles and responsibilities for the company to have protected system as mentioned under Rule 3(3) ? (5 marks)

Attempt all parts of either Q. No. 2 or Q. No. 2A

2. (a) Briefly explain the punishment for publishing or transmitting of material depicting children in sexually explicit act, etc. in electronic form as per section 67B of the Information Technology Act, 2000 as amended.
- (b) Elaborate any *two* rapidly evolving trends in information systems which are getting widely used by the organisations.
- (c) Arithmetic Logic Unit (ALU) and Control Unit (CU) are two typical components of Central Processing Unit (CPU). Explain them briefly.
- (d) Explain any *two* Advanced System Securities measures which you can apply to High Criticality Systems.

(4 marks each)

OR (Alternate question to Q. No. 2)

- 2A. (i) What are the salient features of Hierarchical database ? Describe briefly.
- (ii) What are the various applications of Internet ?
- (iii) Explain the advantages to adopt the E-mail system in the organisation.
- (iv) What are the elements of Management Information System (MIS) ? Explain briefly.

(4 marks each)

: 3 :

Attempt all parts of either Q. No. 3 or Q. No. 3A

3. (a) Define Data Structure with its characteristics.
(b) Write any *four* advantages of windows over DOS operating environment.
(c) Define World Wide Web (WWW) Technology with its important features.
(d) What are the limitations of Expert System ? Explain briefly.

(4 marks each)

OR *(Alternate question to Q. No. 3)*

- 3A. (i) What is utility software ? List out its different categories.
(ii) Explain the need of information at various management levels in the organisation.
(iii) What is Data Mining ? How is it helpful in a big retail organisation ?
(iv) Describe briefly the information system which supports the various functions of Human Resources Management (HRM).

(4 marks each)

4. (a) What measures should be taken to minimize security threats for E-commerce ?
(b) As an IS auditor, which documents should you verify for Systems Development Methodology ? State briefly.

(4 marks)

(4 marks)

: 4 :

(c) What do you understand by State Data Centre and National Service Delivery Gateway in the e-Governance System ?

(4 marks)

(d) What are the functions of National e-Governance Division ? Discuss briefly.

(4 marks)

5. (a) There are total 7,000 students in a university having three different disciplines. Their discipline code and yearly tuition fee per student are as follows :

Discipline of Student	Code	Yearly tuition fee (in Rupees)
Medical	M	₹ 90,000
Engineering	E	₹ 70,000
Arts	A	₹ 30,000

Draw a flowchart to read the name, discipline code of the student from the file and print the total yearly revenue earned by the university and the number of students discipline-wise.

(8 marks)

(b) Explain key steps involved in conducting Information System Audit.

(8 marks)

6. Write short notes on the following :

(a) Cloud computing and its benefits

(b) Semiconductor storage technology

(c) GOVERNMENT TO CITIZEN (G2C) Model

(d) Characteristics of a system.

(4 marks each)

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