*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. PQR Ltd. is a logistic service provider company, having presence at different locations in India as well as abroad. The company has been facing a lot of challenges due to its complex technical infrastructure and out-dated legacy applications, including poor information system management. The employees of the company have also been facing a lot of issues in using the existing software systems. The poor quality of information resources and absence of proper information for strategic planning are leading to wastage of resources of the company and thus affecting the reputation of the company in the market. After a lot of deliberations with the stakeholders and with a consulting firm, the management of the company decided to adopt new IT enabled infrastructure including adoption of cloud computing services.

   Based on the above, attempt the following :

   (a) Discuss any *five* (**5**) features of 'Information'.

   (*5 marks*)

   (b) Briefly explain any *five* (**5**) characteristics of the information required for Strategic planning.

   (*5 marks*)

   (c) Explain the encryption requirements during the transit and the storage of restricted data, as a part of data handling security measures to be taken by PQR Ltd.

   (*5 marks*)

   (d) Define 'Cloud Computing'. Mention any *two* (**2**) features of cloud computing and also list out any *four* (**4**) uses of cloud computing.

   (*1+2+2=5 marks*)

# 334

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

**2.** (*a*) Counter measure is a procedure that recognizes, reduces or eliminates a threat. Briefly discuss the counter measures that can be adopted for different type of E-commerce threats.

(*b*) In spite of the advantages of using a Database Management System (DBMS), there are a few situations or circumstances in which use of regular files is more desirable than DBMS. Write down such circumstances.

(*c*) Explain the importance of Documentation in Program development.

(*d*) Briefly mention the provisions of penalty as stipulated under section 72 of IT Act, 2000 for breach of confidentiality and section 73 of IT Act, 2000 for publishing false electronic signature certificate.

(*4 marks each*)

***OR (Alternate question to Q. No. 2)***

**2A.** Distinguish between the following :

(*i*) Vacuum Tube and Transistors

(*ii*) UDP and HTTP Protocol

(*iii*) Procedural Programming and Event Driven Programming

(*iv*) RAM and ROM

(*4 marks each*)

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

**3.** (*a*) What do you understand by Digital Signature ? What information does a Digital Signature contain ?

(*4 marks*)

(*b*)     To find the best Enterprise Resource Planning (ERP) system for our business, it's important to understand which features and functions we need most, before we compare ERP solutions. In view of this statement, list out some of the general features of ERP that we should consider before finalizing ERP solution.

(*4 marks*)

(*c*)     Discuss any *four* (**4**) of the major constraints, which come in the way of operating a Management Information System (MlS).

(*4 marks*)

(*d*)     What are the basic system security measures that all system must meet, regardless of their System classification ?

(*4 marks*)

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

**3A.**   (*i*)     What is an 'Expert System' ? Briefly discuss its components.

(*ii*)     The right Enterprise Resource Planning (ERP) system can integrate key business functions, boosting the bottom line. The wrong ERP application can drain your IT budget. In view of this statement, briefly discuss any *four* (**4**) criteria, which you should use while choosing right ERP system.

(*iii*)     Briefly explain 'USB flash Drive'.

(*iv*)     Discuss the comparison of 'Compiler' and 'Interpreter'.

(*4 marks each*)

# 334

**4.** (*a*) What is a 'Certifying Authority' under IT Act, 2000 ? Explain the process for a person to become 'Certifying Authority'.

(*b*) Briefly explain the critical success factors for implementation of Enterprise Resource Planning (ERP) in an organization.

(*c*) Describe the various types of files that can be created in SQL Server databases.

(*d*) In order to develop India in the field of Software Production, 'National Policy on Software Products, 2019' (NPSP-2019) has been approved by the Government of India. Write down any *four* (**4**) of the Missions stipulated in NPSP-2019 to achieve the Vision of this policy.

*(4 marks each)*

**5.** (*a*) Puru Ltd. is planning to develop an automation project and it was decided by the management to conduct an initial assessment to determine the viability of the automation project. Assuming that you are a consultant of this firm, list out the technology specific factors, which you should identify and evaluate during the initial assessment phase.

(*b*) What are the objectives of National Service Delivery Gateway (NSDG) ? Mention any *eight* (**8**).

*(8 marks each)*

**6.** Write short notes on the following :

(*a*) Capability Cloud

(*b*) TCP/IP Protocol

(*c*) Distributed Database

(*d*) Steering Committee for Security in Audit of Management Control.

*(4 marks each)*