1. Arise Ltd. is manufacturing several types of computer components and is having its branches throughout the globe. The company wants to centralise and consolidate the information flowing in from its branches in a uniform manner across various levels of the organisation. Each factory and branch is using different software and varied platforms which do not communicate with each other. Also, there is no retention of electronic records in a common server. This results in large duplication of data. So, the company has decided to implement an ERP system to take care of all these issues. In light of the above, answer the following:

(a) List out the problems that Arise Ltd. is facing at present. Also mention the objectives of implementing ERP system by the company.

(b) Discuss various factors which are to be considered while deciding about purchase of the ERP system from a third party.

(c) As an information system auditor, what do you think about the limitations of an ERP system?

(d) What are the provisions in the Information Technology Act, 2000 for retention of electronic records?

(5 marks each)

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

2. (a) What are the various types of computers, classified on the basis of their functions?

(b) State the various functions of an operating system.

(c) Explain in brief the operational characteristics of a good software.

(d) What are the major advantages of 'agile software development'?

(4 marks each)
2A. Distinguish between the following:
   (i) 'Objective information' and 'subjective information'.
   (ii) 'Primary memory' and 'secondary memory'. 
   (iii) 'System software' and 'application software'.
   (iv) 'Hierarchical DBMS' and 'relational DBMS'.

   OR (Alternate question to Q.No. 2)

3. (a) What are the factors which affect the information needs?
(b) "The Information Technology Act, 2000 is not applicable over several other Acts." Explain.
(c) What are the applications of internet in an organisation and in the real world?
(d) Explain 'consumer to consumer (C2C) e-commerce'. Describe its characteristics.

   OR (Alternate question to Q.No. 3)

3A. Write notes on the following:
   (i) Big data analytics
   (ii) Social computing
   (iii) Wi-Fi
   (iv) Program development life cycle.

   OR (Alternate question to Q.No. 3A)
4. (a) What are the constraints in operating a management information system (MIS)? Explain.
(b) Explain the effect of computers on information systems audit.
(c) Discuss the stages of e-governance evolution in India.
(d) "People are one of the components of the database systems." Based upon primary job functions, what are the various types of users that can be identified in a database system?

(4 marks each)

5. (a) Explain broadcasting/wider-dissemination model of e-governance. Describe the requirements of implementing successful e-governance.

(8 marks)
(b) How is electronic mail (e-mail) a useful application? Explain the advantages and disadvantages of e-mail.

(8 marks)

6. (a) What are the core capabilities of decision support system (DSS)? Explain.
(b) Draw a flowchart to find the sum of first 50 odd natural numbers.
(c) "Information systems audit is an evaluation of adequacy of controls." What controls are required to be verified by an information systems auditor while auditing management controls? Explain any one of these controls.
(d) Briefly describe the advantages of a database management system (DBMS).

(4 marks each)