

Time – 3 hrs.

Marks 80

- N.B. 1. Question no.1 is compulsory.
- 2. Attempt any 3 questions out of remaining 5 questions.
- 3. Figures to the right indicate full marks.
- 4. Assume suitable data wherever necessary.

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|-----|---|---|------|
| Q.1 | a | Compare NOS and DOS   | 5 M  |
|     | b | What are various kind of message buffering techniques used in IPC.  | 5 M  |
|     | c | What are Roles in EJB?  | 5 M  |
|     | d | Explain Service Oriented Architecture (SOA) lifecycle with a diagram.                                       | 5 M  |
| Q.2 | a | Describe the need for coordinator in distributed system. Demonstrate the working of Election algorithm.     | 10 M |
|     | b | What are the components of CORBA? List the advantages of CORBA.   | 10 M |
| Q.3 | a | Describe desirable features of a good message passing system.   | 10 M |
|     | b | Explain client centric consistency model in distributed system.   | 10 M |
| Q.4 | a | Explain migration in Heterogeneous system.  | 10 M |
|     | b | Describe different distributed computing models.  | 10 M |
| Q.5 | a | Describe various transparencies in distributed system.  | 10 M |
|     | b | Explain need of deadlock detection algorithm. Explain probe based distributed deadlock detection algorithm. | 10 M |
| Q.6 |   | Write short note on (Any two)   | 20 M |
|     | a | Group communication   |      |
|     | b | . NET architecture  |      |
|     | c | RPC communication protocol  |      |

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