(6 pages)

A2-2362/SCSJA51

APRIL 2022

CLIENT/SERVER COMPUTING

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer

1. The client passes requests for file records over a network to the file server, as was the case for _____.

   (a) database server

   (b) object server

   (c) file server

   (d) transaction server

2. TP Monitor example of a_____ client/server architecture.

   (a) 1-tier

   (b) 2-tier

   (c) 3-tier

   (d) 4-tier

3. The client is also known as the _____, reflecting that the end user usually interacts with the client process.

   (a) Back-end application

   (b) Front-end application

   (c) Communication middleware

   (d) Groupware

4. DDE is implemented in _____ product.

   (a) DOS   (b) Microsoft Windows

   (c) UNIX   (d) Network

5. The server's "filing cabinet" is a _____

   (a) Record

   (b) Database

   (c) File

   (d) Data Storage

6. Which is the SQL database server architecture that conserves memory and CPU?

   (a) Hybrid Architecture

   (b) Multithreaded Architecture

   (c) Process-per Architecture

   (d) Dynamic Architecture

7. _____ provides current, up-to-the-minute information reflecting changes and continuous updates.

   (a) DSS (b) OLTP

   (c) OLE (d) CORBA

8. _____ is ideal for organizations that have shared repositories of documents, images, large data objects, read-only files, etc.

   (a) Database centered system

   (b) File sharing

   (c) Groupware

   (d) Distributed objects

9. The _____ System is an open, cross-platform, Client/Server system for managing a windowed graphical user interface in a distributed network.

   (a) X-Windows

   (b) X-server

   (c) X-Terminal

   (d) Unix workstations

10. _____ is RAID Mirroring and Duplexing.

    (a) Level 2 (b) Level 1

    (c) Level 3 (d) Level 0

PART B — (5 × 7 = 35 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Differentiate between Stateful and Stateless servers.

    Or

    (b) How client/server computing environment is different from mainframe based computing environment?

12. (a) Differentiate between Downsizing and Client/Server Computing.

    Or

    (b) Explain Peer to Peer architecture. What is the basic difference between Client/Server and Peer to Peer Computing?

13. (a) Explain about the process-per-client architecture.

    Or

    (b) Compare Web database and traditional database.

14. (a) What are the various classes of client/server applications? Explain.

Or

(b) Write a short note on CORBA.

15. (a) Explain the functions and features of Network Operating System.

Or

(b) What is the role of Java for client/server on web?

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe three-level schema architecture. Why do we need mapping between schema levels?

17. Explain Client/Server System development methodology and explain various phases and their activities involved in System Integration Life Cycle (SILC).

18. What are the components of database middleware? Explain.

19. Explain the role of client in Client/Server computing and also explain the various services provide by client.

20. Explain the working principal of following:

(a) CDROM

(b) WORM

(c) Mirror disk

(d) Tape optical disk

(e) UNIX Workstation.

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