

Register No:

B.E./B.TECH., DEGREE EXAMINATIONS: NOV/DEC 2012

Fifth Semester

CSE115: Advanced Database Technologies

(Common to Computer Science and Engineering & Information Technology)

Time: Three Hours

Maximum Marks: 100

Answer All the Questions:-

PART A (10 x 1 = 10 Marks)

1. A distributed database has which of the following advantages over a centralized database?
 - A. Software cost
 - B. Software complexity
 - C. Slow response
 - D. Modular growth

2. Location transparency allows _____
 - A. Users to treat the data as if it is at one location
 - B. Programmers to treat the data as if it is at one location
 - C. Managers to treat the data as if it is at one location
 - D. All the above

3. A transaction manager _____
 - A. Maintains a log of transactions
 - B. Maintains before and after database images
 - C. Maintains appropriate concurrency control
 - D. All of the above.

4. Storing a separate copy of the database at multiple locations is called _____
 - A. Data Replication
 - B. Horizontal Partitioning
 - C. Vertical Partitioning
 - D. Horizontal and Vertical Partitioning

5. An abstract data type is used to _____
- A. link data from remote databases
 - B. prevent users from getting to database security information
 - C. provide a conceptual view of the data so it is easier to understand
 - D. store complex data structure to represent the properties of objects
6. The ability to define common properties or functions in the higher class and then modify them in the lower classes is called:
- A. Inheritance
 - B. Polymorphism
 - C. Reflexive
 - D. Encapsulation
7. The benefits of object-oriented modeling are _____
- A. The ability to tackle more challenging problems
 - B. Reusability of analysis, design, and programming results
 - C. Improved communication between users, analysts, etc
 - D. All the above
8. Object relational databases are _____
- A. Object oriented databases on relational model
 - B. Object oriented databases on persistent programming language
 - C. Relational model with persistence
 - D. Both A and B.
9. Active databases are related to _____
- A. Triggers
 - B. Stored procedures
 - C. PL/SQL functions
 - D. Cursors
10. Which of the following supports mobile databases
- A. Sybase
 - B. Oracle 9i Lite
 - C. Derby
 - D. Oracle 11g

PART B (10 x 2= 20 Marks)

11. Differentiate vertical and horizontal fragmentation.
12. What is replication transparency?
13. What are global transactions?
14. What is the role of TP monitor?
15. How are the weaknesses of RDBMS overcome by OODBMS?
16. What is the need for data persistence?
17. How are object oriented databases different from flat files?
18. Specify the ODMG standard?
19. Define spatial databases model?
20. What are the applications of Deductive databases?

PART C (5 x 14 = 20 Marks)

21. a) Explain the architecture of distributed databases management system with an neat diagram.

(OR)

- b) State and explain Dates twelve rules for designing Distributed DBMS.

22. a) Explain briefly about deadlock handing in distributed databases.

(OR)

- b) Describe the TP model of X/Open distributed systems.

- 23 .a) (i) Discuss briefly about the object oriented concepts that are applied in database management systems.

(8)

(ii) Explain how objects are stored in databases.

(6)

(OR)

23. b) Discuss briefly about the issues, advantages and disadvantages of OODBMS.

24. a) Discuss briefly about OODBMS standards and systems.

(OR)

b) Compare and contrast the salient features of object relational and object oriented databases.

25.a) Write short notes on active and temporal databases. Describe their applications.

(OR)

b) What are multimedia databases? What types of data are stored in multimedia databases?

Discuss the salient features of Multimedia databases.
