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Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 75514

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Elective

Software Engineering

XCS 010 — ADVANCED DATABASE MANAGEMENT SYSTEMS

(Common to 5 Year M.Sc. – Information Technology/M.Sc. Computer Technology)

(Regulation 2003)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is Query Optimization?

2. Define Serializability.

3. What do you mean by concurrency control?

4. What is I/O parallelism?

5. What is inheritance?

6. Define XML.

7. What do you mean by OLAP?

8. Why is data replication useful in DBMS?

9. What do you mean by deductive database?

10. What is active database? State its significance.

PART B — (5 × 16 = 80 marks)

11. (a) What is semantic query optimization? How does it differ from other query optimization techniques? Explain. (16)

Or

(b) Discuss the immediate update recovery technique in both single-user and multi-user environments. (16)

12. (a) Distinguish between inter-query parallelism and intra-query parallelism. (16)

Or

(b) What is meant by data allocations in distributed database design? Explain the allocation techniques for distributed database design. (16)

13. (a) (i) Give short notes on object relational database and nested relations. (8)

(ii) Distinguish between object based databases and object oriented Databases. (8)

Or

(b) (i) Briefly explain the structure of XML and storage of XML Data. (8)

(ii) List out the XML applications. (8)

14. (a) (i) Explain similarity based Retrieval with suitable example. (8)

(ii) What is Data mining? Describe how decision trees help in data mining. (8)

Or

(b) (i) Explain the Data warehouse architecture. (8)

(ii) Briefly explain the Decision support systems. (8)

15. (a) Describe in detail about mobile databases and what are the security mechanism are available in mobile databases. (16)

Or

(b) Give short notes of Multimedia databases and Spatial Databases. (8 + 8)

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