

2015/13 FN
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Question Paper Code : 65137

5 Year M.Sc. DEGREE EXAMINATION, MAY/JUNE 2013.

Third Semester

Software Engineering

ESE 033 — DATABASE MANAGEMENT SYSTEMS

(Regulation 2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Describe network model with an illustration.
2. Explain the duties of a database administrator.
3. Write a short note on file operations and explain free lists with example?
4. What is the purpose of RAID technology in DBMS?
5. List any two advantages of relational model.
6. Write general format for following SQL statements:
 - (a) Create statement.
 - (b) Alter statement.
7. Write a brief note on ACID properties and give example for each property?
8. When will serializability used in a database and why?
9. Describe time stamp ordering.
10. Brief shadow paging.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail ER notations and draw an E-R diagram for Hospital Information Management system and explain.

Or

- (b) Design a database for payroll Information system and represent it in Relational Schema.

12. (a) Explain hashing techniques with examples.

Or

- (b) Explain in detail about B+tree with suitable examples.

13. (a) Explain the six basic operators of relation algebra and show how you will apply them in designing a database.

Or

- (b) Explain Normalization and types of normal forms with proper illustration.

14. (a) Explain the algorithms for executing query operations with example.

Or

- (b) Explain transaction processing in detail.

15. (a) Write a detailed note on locking techniques with example.

Or

- (b) Explain the various issues in securing a database.