

**Course Code: IT366****Course Name: ADVANCED DATABASE MANAGEMENT SYSTEMS**

Max. Marks: 100

Duration: 3 Hours

**PART A***Answer any two full questions, each carries 15 marks.*

Marks

- 1 a) Explain different steps involved in distributed query processing. (7)
- b) How two phase commit protocol works for concurrency Control? Explain with a neat diagram. (8)
- 2 a) Explain the different methods used for distributed concurrency control. (8)
- b) Explain the data fragmentation, replication and allocation technique used in distributed database design. (7)
- 3 a) Explain about OQL Queries with Database Entry Points and iterator variables with examples. (10)
- b) What is semi join operation? Explain with example. (5)

**PART B***Answer any two full questions, each carries 15 marks.*

- 4 a) Illustrate with example FP-Growth algorithm. (8)
- b) Explain the steps involved in constructing a data warehouse. (7)
- 5 a) Explain the architecture of mobile database with a neat diagram (8)
- b) What are different the phases of the knowledge discovery process? (7)
- 6 a) What are the characteristics of web databases? (6)
- b) How classification algorithms are useful in data mining? Using an example, Explain classification using simple decision tree. (9)

**PART C***Answer any two full questions, each carries 20 marks.*

- 7 a) Draw an E-R diagram for a Banking System. (10)

- b) What do you mean by tuning of database? Explain any three tuneable parameters in database. (10)
- 8 a) What are the challenges and issues in database security? (10)
- b) How knowledge base differs from database? (4)
- c) Explain about multimedia database. (6)
- 9 a) Explain Boyce Codd Normal form. How it is different from third normal form? (10)
- b) Write a relation R which is in 2NF but not in 3NF. Show all functional dependencies in the relation R. (10)

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