Code No. 11510/CBCS

FACULTY OF ENGINEERING

B.E. V – Semester (CBCS) (CSE)(Supple.) Examination, May/June 2019

Subject: Database Management Systems

Time: 3 hours **Max. Marks: 70**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

Part – A (2x10=20 Marks)

1) What is the need of data model in DBMS and give its classification
2) Write about data mining analysis.
3) What is a surrogate key? How can it be used for schema refinement?
4) What is a phantom record? Why do they occur?
5) Explain object-oriented data model.
6) Explain about JDBC.
7) Write about multiple granularity.
8) What is ARIES?
9) What is fuzzy check point?
10) Explain about Log based recovery

Part – B (5x10=50 Marks)

11 a) Describe about object based databases. (5M)
b) Explain the concept of design issues in E-R model with suitable examples. (5M)

12 a) Consider the following schema:

Suppliers (sid, sname, address)

Parts (pid, pname, color)

Catalog (sid, pid, cost)

Write the relational algebraic queries for the following:

i) Find the sids of suppliers who supply some red or green part

ii) Find the sids of suppliers who supply every red or green part

iii) Find the pids of parts supplied by at least two different suppliers. (6M)

b) Explain about Nested sub queries with example (4M)

13 a) Explain about decomposition using functional dependencies (7M)

b) Differentiate Between 3NF and BCNF. (3M)

14 Compare static and dynamic hashing Show the extendable hash structure for the search key values 2,3,5,7,11,17,19,23,29,31 where h(x)=x mod 8 and buckets can hold 3 records. (10M)

15 a) Explain briefly about deadlock handling. (5M)

b) Explain about Multi key access. (5M)

16 a) Write about weak levels of consistency with example. (5M)

b) Explain about restart recovery (5M)

17. Write short notes on
a) Failure with loss of non volatile (4M)
b) Bitmap indices (3M)
c) Data dictionary (3M)

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