IV Semester B.Sc. Degree Examination, September/October 2023
(NEP – Freshers)
COMPUTER SCIENCE
DSC4 : Database Management Systems

Time : 2½ Hours

Max. Marks : 60

*Instruction : Answer **all** the Sections.*

SECTION – A

I. Answer **any 6** questions. **Each** question carries **2** marks.　　(6×2=12)

1) What is DBMS ?

2) What are the responsibilities of DBA ?

3) Differentiate between foreign key and primary key.

4) What is composite attribute ?

5) List any two advantages of PL/SQL.

6) Define Relational Data Model.

7) Define transitive dependency.

8) What is starvation ?

9) What is a single user system ?

SECTION – B

(4×6=24)

II. Answer **any 4** questions. **Each** question carries **6** marks.

10) Explain any two data model with an example.

11) Explain applications of DBMS.

12) Explain the different notations used in ER diagram.

13) Explain UNION, INTERSECTION and SET DIFFERENCE operations with an example.

14) Write a note on BCNF.

15) Explain how locking techniques are used for concurrency control.

SECTION – C

III. Answer **any 3** questions. **Each** question carries **8** marks. (3×8=24)

16) a) Explain the DBMS interfaces. 4

   b) Explain DDL statements with syntax and examples. 4

17) a) Design an ER-diagram for student database. 4

   b) Explain the different types of relationships used in DBMS. 4

18) What is Join ? Explain its types with examples. 8

19) What is Normalization ? Explain 1NF and 2NF with examples. 8

20) a) Write a note on Deadlock. 4

   b) What is a transaction ? Explain its properties. 4

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