



DCCA – 301

III Semester B.C.A. Degree Examination, April/May 2023  
(NEP)

**COMPUTER APPLICATION**  
**DSC 7 : Database Management System**

Time : 2½ Hours

Max. Marks : 60

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

**SECTION – A**

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

- 1) What is DBMS ?
- 2) Define DBMS interface.
- 3) Define the terms :  
i) Entity, ii) Attributes.
- 4) What is entity sets ?
- 5) Define foreign key.
- 6) What is functional dependencies ?
- 7) What is nested sub queries ?
- 8) Differentiate between single user and multi user system.
- 9) Mention the types of database failures.

**SECTION – B**

II. Answer **any four** questions. **Each** question carries **six** marks : **(4×6=24)**

- 10) Write a note on people associated with database system.
- 11) Explain three schema architecture with neat diagram.
- 12) Explain various types of relationship.
- 13) What is PL/SQL ? List the features of PL/SQL.
- 14) Explain 1NF, 2NF and 3NF with an example.
- 15) Write a note on transition states.

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## SECTION – C

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

- 16) a) Write a note on database system applications. **4**  
b) What is data independence ? Explain its types. **4**
- 17) What is ER diagram ? Draw a ER diagram for university database. **8**
- 18) Write a note on basic relational algebra operations. **8**
- 19) a) Explain any two aggregate functions with example. **4**  
b) Write a note on anomalies in relational database design. **4**
- 20) a) Write a note on ACID properties. **4**  
b) Write a note on time stamp ordering. **4**