

B.Sc. Semester-II Examination, 2022-23**COMPUTER SCIENCE [Programme]**

Course ID : 21518 Course Code : SP/CSC/201/C-1D

Course Title : **Database Fundamentals &
Database Management Systems****[NEW & OLD SYLLABUS]**

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***UNIT-I**1. Answer any **five** of the following questions:

1×5=5

- What is relation in DBMS?
- What is data independence?
- Write SQL query to display the names of students from student (name, Semester, Roll no, marks) table whose marks>50?
- What is functional dependency in a relation?
- What is candidate key?
- What is data abstraction?
- What is DDL? Give example.
- What is DBMS? Give Example.

UNIT-II

- Answer any **two** questions: 5×2=10
 - Write advantages of DBMS over file system.
 - Define normalization. Differentiate between 2nd and 3rd normal form with example. 1+4
 - Explain any two relational algebra operations with example.
 - What is database administrator? Discuss the functions of DBA. 2+3

UNIT-III

- Answer any **one** question: 10×1=10
 - What is ER model? Draw the ER diagram of School information system and mention Relational schemas. 1+6+3
 - Consider the following Database schema:
Students (Roll, Name, Subject, City)
book_issued (Book_ID, issue_date, Roll).
Write down the following queries in SQL:
 - Display different subject names.
 - Get all student details from Bankura City.
 - Display the student details whose names starts with letter 'a'.
 - Find the roll and name of students who issued books.
 - Find the student who issued books on 01/12/2018.

[Turn Over]