

Anjuman Islam Janjira Degree College of Science Murud-Janjira, Raigad-402401 Affiliated to University of Mumbai	
Class: -F.Y.B.Sc. (C.S)	Subject:-Fundamentals of Database System
Semester:- I	Vertical:- Major(MJ2)
Exam Event:- (SH)Winter 2025	Marks: - 30
Date: - 07/11/2025	Duration: - 01:00 Hour

- N.B. –**
- 1 – All questions are compulsory.
 - 2 – All questions have internal choice.
 - 3 – Figures to the right indicate full marks.



Q1. Answer the following question. (Any 2 out of 4)

10

- 1) List the differences between a file system and a database system.
- 2) Explain the roles of different database users in a DBMS environment.
- 3) What types of attributes can exist in relationships?
- 4) Construct an ER diagram for a hospital with the set of patient and a set of medical doctor associated with each patient a record of various test and examination conducted.

Q2. Answer the following question. (Any 2 out of 4)

10

- 1) Explain the purpose of selection and projection operations with appropriate syntax and examples.
- 2) State the definition of the SET Intersect operator in relational algebra. Apply the SET Intersect operator on two compatible relations and provide the result.
- 3) Use five arithmetic functions in sample queries or expressions and show how they compute values.
- 4) Explain how to create view (with check option and without check option), select view and drop view

Q3. Answer the following question. (Any 2 out of 4)

10

- 1) Can you write an SQL query to alter a table by adding a new column and then rename the table?
- 2) Illustrate the flow of data through a three-tier architecture with a diagram. Define client-server architecture.
- 3) Demonstrate how to perform a database backup using a specific technique.
- 4) Compare different date/time functions and their outputs.