


Course Code : 2101CS302

Date : 20-05-2024

Course Name : Database Management System - II

Duration : 150 Minutes

Total Marks : 70

Instructions:

1. Attempt all the questions.
2. Figures to the right indicates maximum marks.
3. Make suitable assumptions wherever necessary.

Q.1 (A) Define Function & Explain (UDF) User Defined Functions in detail. **4**
(B) Explain Aggregate functions with an example. **3**
OR

Compare Function & Stored Procedure.

(C) Explain Step wise Cursor life cycle with the help of example. **7**
OR

Explain Trigger with the help of example.

Q.2 (A) Define Exception Handling and types of exception. **4**
(B) Explain Predefined Exception. **3**
OR

Explain User defined Exception.

(C) Define Transaction. Explain Save Points in Transactions with example. **7**
OR

Define Transaction. Explain Auto Rollback Transactions with example.

Q.3 (A) Define Index. When the indexes are used. **4**
(B) Explain Execution plan in detail. **3**
OR

Explain Missing Index in detail.

(C) Explain Clustered Index in detail. **7**
OR

Explain Non-Clustered Index in detail.

- Q.4** **(A)** Compare SQL v/s NoSQL. **4**
 (B) Write a short note on different types of NoSQL databases. **3**

OR

Write advantages of using NoSQL instead of RDBMS.

- (C)** Explain insertOne(), updateOne() & deleteOne() in MongoDB. **7**

OR

Explain insertMany(), updateMany() & deleteMany() in MongoDB.

- Q.5** **(A)** Explain Aggregate command in MongoDB. **4**
 (B) Explain skip (), sort () in MongoDB. **3**

OR

Explain count () & limit () in MongoDB.

- (C)** Prepare NoSQL Statements for below table. **7**

Collection: **Employee_Info** (EID, EName, Gender, JoiningDate, Salary, City)

1. Write a query to find the name and city for those employees in which salary is more than 5000.
2. Write a query to display the documents whose name starts with C and having 4 characters in above collection.
3. Write a query to display 4th document of above collection.

OR

Prepare NoSQL Statements for below collection.

Collection: **Employee_Info** (EID, EName, Gender, JoiningDate, Salary, City)

1. Write a query to display the fields EID, EName, Gender, and Salary for all the documents in the collection Employee_Info.
2. Write a query to display all the Employees who lives in city Gondal.
3. Write a query to display the sum of all salaries in above collection.
