

**Scheme – I**  
**Sample Question Paper**

**Program Name** : Computer Engineering Program Group  
**Program Code** : CO/CM/CW  
**Semester** : Third  
**Course Title** : Database Management System  
**Marks** : 70

22319

**Time:3 Hour**

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**Instructions:**

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

**Q.1) Attempt any FIVE of the following.**

**10 Marks**

- a) List any four applications of DBMS.
- b) State the four database users.
- c) Define normalization. Enlist its type.
- d) Enlist DDL and DML commands.
- e) Define the following
  - i) Primary Key
  - ii) Foreign Key
- f) Enlist four aggregate functions.
- g) Draw PL/SQL block structure.

**Q.2) Attempt any THREE of the following.**

**12 Marks**

- a) Write and explain syntax for creating procedure.
- b) Explain aggregate function with syntax and example.
- c) Explain grant and revoke command with syntax and example.
- d) Distinguish any four points between network model and hierarchical model.

**Q.3) Attempt any THREE of the following.**

**12 Marks**

- a) Explain create and rename command with syntax and example.
- b) Write and explain the syntax for creating and dropping synonyms with an example.

- c) Explain predefined and user defined exception handling with the help of example.
- d) Explain ACID properties of transaction.

**Q.4) Attempt any THREE of the following.**

**12 Marks**

- a) List and explain DCL commands
- b) Write and explain syntax for creating function.
- c) Explain steps of cursor implementation with syntax and example.
- d) Explain 2NF with example.
- e) Explain the four roles of database administrator.

**Q.5) Attempt any TWO of the following.**

**12 Marks**

- a) Draw ER diagram for Hospital Management System  
(Use **DOCTOR,PATIENT,HOSPITAL** and **MEDICAL\_RECORD** Entity).  
Identify Primary Key and Foreign Key.
- b) Normalize database  
**Employee(emp\_id,emp\_name,phone,skill,salary,deptno,dept\_name,jobno,job\_title)** upto 3NF
- c) Write SQL query for following consider table  
**EMP(empno , deptno, ename ,salary, Designation, joiningdate, DOB,city)**
  - i) Display names of employees whose experience is more than 10 years
  - ii) Display age of employees
  - iii) Display average salary of all employee
  - iv) Display name of employee who earned highest salary

**Q.6) Attempt any TWO of the following.**

**12 Marks**

- a) Create table  
**EMP( empno , deptno, ename ,salary, Designation, joiningdate, DOB,city).**
  - i) Insert one row into the table
  - ii) Save the data
  - iii) Insert second row into the table
  - iv) Undo the insertion of second row
  - v) Insert two rows into the table
  - vi) Create Savepoint s1
  - vii) Insert one row into the table
  - viii) Undo upto savepoint s1

b) Write a PL/SQL program to check whether specified employee is present in EMP table or not. Accept empno from user. If employee does not exist display message using exception handling.

c) Write SQL query for following consider table

**EMP(empno , deptno, ename ,salary, Designation, joiningdate, DOB,city)**

i) Display employees name and number in an increasing order of salary

ii) Display employee name and employee number dept wise

iii) Display total salary of all employee

iv) Display number of employees dept wise

v) Display employee name having experience more than 3 years

vi) Display employee name starting with "S" and working in deptno 1002

**Scheme – I**  
**Sample Test Paper - I**

**Program Name** : Computer Engineering Program Group  
**Program Code** : CO/CM/CW  
**Semester** : Third  
**Course Title** : Database Management System  
**Marks** : 20

22319

**Time: 1 Hour**

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**Instructions:**

- (1) All questions are compulsory.
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- (5) Preferably, write the answers in sequential order.

**Q.1 Attempt any FOUR.**

**08 Marks**

- a) Define the following
  - i) Instance
  - ii) Schema
- b) State the four database users.
- c) Define the following
  - i) Primary Key
  - ii) Foreign Key
- d) State four Dr. E. F. Codd's rules.
- e) Enlist DDL and DML commands.
- f) Define normalization. Enlist its type.

**Q.2 Attempt any THREE.**

**12 Marks**

- a) State four advantages of DBMS over file processing system.
- b) Draw ER diagram for Library Management System.
- c) Define Normalization and state three advantages of normalization.
- d) Write syntax for Create, Alter, Drop and Rename table commands.
- e) Write SQL queries for following
  - i) Create table EMP with following attributes using suitable data types (Eno, Ename, Deptname, Salary, designation, Joining\_Date )
  - ii) Display names of employee whose name start with alphabet 'A'
  - iii) Display names of employee who joined before '1/1/2000'
  - iv) Increase the salary of employees by 20% who joined after '1/1/2005'
  - f) Explain grant and revoke command with syntax and example

**Scheme – I**  
**Sample Test Paper - II**

**Program Name** : Computer Engineering Program Group  
**Program Code** : CO/CM/CW  
**Semester** : Third  
**Course Title** : Database Management System  
**Marks** : 20

22319

**Time: 1 Hour**

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**Instructions:**

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

**Q.1 Attempt any FOUR.**

**08 Marks**

- a) Enlist string and arithmetic functions.
- b) State the advantages of PL/SQL.
- (c) Define cursor and state its types.
- d) Enlist system privileges and object privileges.
- e) State the causes of database failures.
- f) Enlist properties of transaction.

**Q.2 Attempt any THREE.**

**12 Marks**

- a) Write and explain creating views, updating views and dropping views.
- b) Write SQL query for following consider table stud(rollno,name,sub1,sub2,sub3)
  - i) Display name of student who got minimum marks in sub1
  - ii) Display name of student who obtained highest marks in sub3
  - iii) Display number of students failed in sub2
  - iv) Find total marks of sub1 of all student
- c) Write a PL/SQL code to print largest number from three numbers (accept three numbers from user)
- d) Write a PL/SQL code to print number of employees working in specified department. Consider employee table and accept deptno from user.
- e) Pass empno as a parameter to function and write a function to return salary of that employee.
- f) Write SQL queries for following
  - i) Create table EMP (empno, deptno, ename, salary, Designation, joiningdate, DOB, city).
  - ii) Revoke select, insert and update privileges from the user.