

Note: 1) All questions are compulsory.

2) figures to the right indicate full marks.

Q.1 a) Explain all data types available in SQL. [05]

b) What is a difference between an anonymous block and subprogram. [05]

Q.2 a) What do you mean by Join? Explain Inner-join and Outer-join with suitable example? [05]

b) What are views? How to create it in SQL? [05]

OR

b) Explain GROUP BY and ORDER BY clause with proper example. [05]

c) Consider following tables - [05]

Student (rollno, sname, city, marks)

class (classid, classname, capacity, rollno)

Solve following queries -

i) Find out total number of student in each class.

ii) Create a view showing the details of students classwise.

iii) Create an index on city column of Student table.

Q.3 a) Explain datetime functions available in PL/SQL. [05]

b) Explain CUBE and ROLLUP operator available in SQL. [05]

OR

b) Write a short note on correlated subquery. [05]
Explain with example.

c) Write a short note on hierarchical retrieval. [05]

4 a) Write a short note on bind variable. [05]

b) What are the advantages of PL/SQL? [05]

OR

b) What do you mean by transaction? [05]
Explain commit and rollback with respect to transaction.

c) Consider Customer (custno, cname, city) table. [05]
Write PL/SQL block of code to display customer name and city of a particular customer. User should enter custno of a customer.

5 a) What are the attributes used in implicit as well as explicit cursor? [05]

b) What are the steps involved in explicit cursor management? [05]

OR

b) What do you mean by parameterized cursor? How to declare it and how to use it? [05]

6) Consider Employee (empno, ename, city) table. [05]
Write an explicit cursor to display name of those employees whose city name starts with 'M'.

a) What do you mean by a procedure? What are the different keywords and parameters used for creating procedure? [05]

b) List the advantages of using a procedure and function. [05]

OR

b) What do you mean by package? What are the advantages of using package? [05]

c) Consider Employee (empno, ename, city, salary) table. Create a procedure to increase the salary of an employee by some amount. Write a PL/SQL block of code to call it. [05]

Q.7 a) What do you mean by trigger? Explain the syntax of create trigger with all keywords and parameters. [05]

b) Explain various types of trigger. [05]

OR

b) What do you mean by instead of trigger? Explain the syntax of instead of trigger for a view. [05]

c) Consider Employee (empno, ename, city, salary) table. Create a trigger on Employee table such that whenever the table's data is updated for each row, calculate the difference in salary. Display output in proper format. [05]