22416

22223

3 Hours / 70 Marks Seat No. | | | | | | | | |

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

(6) Preferably, write the answer in sequential order.

Marks

1. Attempt any FIVE of the following: **10**

a) Enlist any four DDL commands.

b) State use of

i) Commit and

ii) Rollback commands.

c) Define composite Index.

d) State any two advantages of PL/SQL.

e) Enlist different types of Database Users.

f) Enlist ACID properties of transactions.

g) Define synonym and state its use.

Marks

2. Attempt any THREE of the following: **12**

a) Define the following terms with respect to any Relation.

i) Cardinality

ii) Degree

iii) Domain

iv) Attribute

b) Describe any two set operators with suitable example.

c) Write a command to create and drop synonym of any relation.

d) Consider the following schema student (R NO, Name, Course, Percentage)
Write SQL commands for the following:

i) Display the records having 'A' as first character in name of students.

ii) Display the records having course as 'cm' and percentage more than 70.

iii) Display all records in descending order of name.

iv) Display minimum and maximum percentage.

3. Attempt any THREE of the following: **12**

a) Write a PL/SQL code to display 1 to 10 odd numbers.

b) Describe the different types and causes of Database failure.

c) Describe Group by and having clause with suitable example.

d) Create a sequence for following specification.

Name : ABC, Starting value : 10, Maximum value : 100, Increment by 10.

Marks

4. Attempt any THREE of the following: **12**

a) Describe Implicit and Explicit cursor.

b) Describe the use of Index and write command to create an Index.

c) Consider the Schema Emp (E. NO, E. Name, Department, Salary, Bonus). Write SQL command for the following.
   i) Insert one record with suitable data.
   ii) Display all records having salary between 5000 and 10000.
   iii) Get total salary of all the employees.
   iv) Display E. No., E. Name and total payment (i.e. Salary and Bonus) of all employees.

d) Describe different states of transaction with neat diagram.

e) Write a PL/SQL program to find the largest of three number.

5. Attempt any TWO of the following: **12**

a) Consider the Schema.
Department (DNO, D Name, Location, Manager), Write SQL commands for the following:
   i) Create Department table with suitable data type and size of each attribute.
   ii) Add one more attribute as Ph-no with suitable data type.
   iii) Add the constraint primary key to D No.

b) Consider the following Schema:
Supplier (S No., S. Name, location, Ph. No.)
Product (P. No., P. Name, Price)
Shipment (S. No. P No. Qty.)
Write SQL commands for the following:
   i) Change the location of supplier to 'S2' to 'Pune'.
   ii) Display all records from product relation having 'v' anywhere in the P name.
   iii) Display S No., P. No., Qty, and S Name using tables Supplier and Shipment.
   iv) Display S No., P No., P Name using the relations Product and Shipment.
   v) Display all records from product having price more than 2000.
   vi) Display S Name and Location from Supplier having location as 'Mumbai'.

c) Create a trigger which invokes on updation of record in Department table.

Marks

6. Attempt any TWO of the following: **12**

a) Write SQL commands for the following:

i) Create User 'ABC' with password as 'IF4I'

ii) Grant privilege of select, delete, update on table EMP to user.

iii) Take back privilege of Delete form user 'ABC' on Relation Emp.

b) Consider a Schema EMP (E No., E Name, Dept., Salary).
Write SQL commands for the following:

i) Create a view EMP – V by fetching E No., Dept., Salary from Emp.

ii) Change Dept. to 'Marketing' of E No. = 123 in view.

iii) Dropping view Emp – V.

c) i) Write a function to find area of a circle and call the function.

ii) Create a stored procedure to accept name and greet user with name.
