22319

21222

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

15 minutes extra for each hour

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable date, if necessary.

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

Marks

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

a) Define data model. List its types.

b) State the use of Avg function with example.

c) List two advantages of PL/SQL.

d) State the concept of database recovery.

e) State types of database user.

f) List any four data types in SQL.

g) State the components used in E-R diagram.

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

a) Define Normalization. Explain 2NF with example.

b) Explain block structure of PL/SQL.

c) With neat sketch describe Transaction states diagram.

d) Explain any four string functions.

P.T.O.

Marks

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

a) With neat diagram explain three level architecture of database system.

b) Explain conditional control in PL/SQL with example.

c) Explain any two DDL commands along with example.

d) Describe the concept of view with example. State its purpose.

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

a) Explain advantages of DBMS over file processing system.

b) Write and explain syntax for creating Trigger.

c) Write syntax for

i) Create Index

ii) Drop Index

d) Explain.

i) Candidate key

ii) Foreign key

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

a) Consider the schema Customer (Cust-id, Cust_name, Cust_addr, Cust_city)

i) Create a view on Customer (Cust_id, Cust_name) where Cust_city is 'Pune'

ii) Create a sequence on Cust_id

b) Draw E-R diagram of Banking system considering deposite, withdrawl facility. Also show primary key, weak entity, strong entity.

c) i) Create table Student (S_id, S_name, S_addr, S_marks) with proper data type and size.

ii) Insert row (5, 'ABC', 'RRRRR', 79) into student table.

iii) Update marks of student 85 where S_id is 5.

Marks

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

a) i) Create user ‘RAM’.

ii) Grant create, select, insert, update, delete privileges to user ‘RAM’.

iii) Remove update privilege from user ‘RAM’.

b) Write a PL/SQL program, which accept the number from user. If user enters an odd number then exception invalid number is raised using user defined exception handling.

c) Consider the following table employee (Emp_id, Emp_name, Emp_age)

i) Display details of employees whose age is less than 30.

ii) Display details of employees whose age is in between the range 30 to 60.

iii) Display total number of employee whose age is 60.

iv) Display names of employees whose name starts with 'S'.

v) Display details of employees whose name end with 'd'.

vi) Display details of employees whose age is greater than 50 and whose name contain 'e'.