17332

16117

3 Hours / 100 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. a) Attempt **any six** of the following : **12**

i) List any four advantages of DBMS. **2**

ii) List any two data model. **2**

iii) What is multi-valued dependency ? **2**

iv) List four DDL commands. **2**

v) List DCL commands any four. **2**

vi) What is view ? **2**

vii) Define cursor ? List the two types of cursor. **2**

viii) List different relational algebraic operators any four. **2**

b) Attempt **any two** of the following : **8**

i) Explain Distributed Databases with example. **4**

ii) Explain DELETE and DROP Command with syntax and example. **4**

iii) Explain the exception handling with its two type. **4**

P.T.O.

Marks

2. Attempt **any four** of the following : **16**

a) Explain strong entity and weak entity set. **4**

b) Explain functional dependencies and 2 NF with example. **4**

c) Consider the following database Employee (emp-id, emp-name, emp-city, emp-addr, emp-dept, join-date) **4**

i) Display the emp-id of employee who live in city Pune or Nagpur.

ii) Display the details of employee whose joining date is after 02-July-2007.

iii) Change employee name 'Ajit' to Aarav'.

iv) Display the total number of employees whose dept is '50'.

d) Consider following schema. **4**

Employee (empname, empid, dob, salary, job)

Create a view on employee having attribute (empname, empid, dob, salary, job) where salary is greater than 20,000.

e) Explain Database security with its requirements. **4**

f) Explain entity integrity constraints with syntax and example. **4**

3. Attempt **any four** of the following : **16**

a) Give the syntax and example of CREATE and RENAME Commands. **4**

b) Explain PL/SQL Block structure. **4**

c) Explain tuple relational calculus with example. **4**

d) Explain the following terms with syntax and example : **4**

a) Simple Index

b) Composite Index

c) Unique Index.

Marks

e) What is database Trigger ? How to create Trigger ? **4**

f) Explain three levels of data abstraction with suitable diagram. **4**

4. Attempt **any four** of the following : **16**

a) Consider student schema (studid, studname, studaddr, studcity, studper)

Write relational algebra expression for following :

i) Find the name of the student those who scored first class.

ii) Find studid, studaddr from the student database. **4**

b) Write a PL/SQL program to print even or odd number from given range (Accept number range from user). **4**

c) Explain ALTER command with any two options. **4**

d) Describe ACID properties of transaction. **4**

e) Explain the following terms with syntax and example. **4**

i) Creating snapshot

ii) Altering snapshot

iii) Dropping a snapshot.

f) Explain client-server architecture. **4**

5. Attempt **any four** of the following : **16**

a) Explain data warehousing and data mining. **4**

b) Explain any four string functions with example. **4**

c) Explain function in PL/SQL with suitable example. **4**

d) Explain two locking strategies. **4**

e) Explain BCNF with example. **4**

Marks

f) Consider the following database schema : **4**

Emp (Empno, Ename, job, mgr, joindate, salary, comm, deptno).

Write the SQL queries for the following :

i) Write a query to find list of employees whose salary is not less 5000.

ii) Write a query to find list of employees whose job title is either "Manager" or "Analyst".

iii) Change the location of deptno 40 to Pune from Chandrapur.

iv) Display the Ename and salary of employees who earn more than Rs. 50,000 and are in deptno 10 or 30.

6. Attempt **any four** of the following : **16**

a) Draw overall structure of DBMS. **4**

b) Explain Domain integrity constraint with syntax and example. **4**

c) Give the use of grant and revoke command with syntax and example. **4**

d) Explain the term specialization and generalization with suitable example. **4**

e) Explain Inner join and Outer join with example. **4**

f) Explain loop control structure used in PL/SQL. **4**

———————