Question Bank
Database Management System (22319) (CO-3-I)

First Unit Test

1) List any four advantages of DBMS over file processing system.
   OR List disadvantages of file processing system (**W-18**) (**2M**)
   OR State advantages of DBMS over file processing system (**S-19**) (**W-19**) (**2M**)
2) Enlist applications of database.
3) Differentiate between: DBMS and RDBMS.
4) Define: Data abstraction and Data redundancy**.** **(W-18) (2M)**
5) Explain Data Redundancy and Integrity.
6) Draw three level architecture of DBMS. **(W-19) (2M)**
7) Define Attribute. List the types of Attribute.
8) Explain ALTER command. Demonstrate with any two options (add & modify options).
9) Explain Overall structure of DBMS with help of diagram. (**S-19**) (4**M**)
10) Define Instance and Schema of Database. (**S-19**) (4**M**)
11) List various data models. **(2M)**
12) Describe basic concepts of relational model.
13) What is data model? Explain network model and hierarchical model.
14) Distinguish between: Hierarchical model and Network Model. **(W-18) (W-19) (4M)**
15) Differentiate between relational model and hierarchical model **(S-19) (4M)**
16) List and draw any four symbols used in ER Model.
17) Draw an E-R diagram of library management system considering issue and return, fine calculation facility and also show primary key, weak entity and strong entity set. **(W-18) (6M)**.
    OR Draw an ER diagram of library management system considering issue and return, fine calculation facility. Consider appropriate entities **(S-19) (6M)**
    OR Draw an ER diagram for library management system (Use books, publisher and member entities) **(W-19) (6M)**
18) Explain strong and weak entity set. **(W-19) (4M)**
19) Define entity. Differentiate between Strong and Weak Entity Set with example.
20) Define recursive relationship.
21) Define tuple, field, cardinality,
22) degree.
23) Define Table and Field. **(W-19) (2M)**
24) State any 2 E.F. Codd's rule for RDBMS. **(S-19) (2M)**
25) Define normalization. List its types **(W-18) (S-19) (2M)**
26) List any two needs of normalization. **(2M)**
27) State and explain 1NF and 2NF with example. **(W-18) (4M)**
28) State and explain 2NF with example. **(S-19) (4M)**
29) State and explain 3NF with example. **(W-19) (4M)**
30) List any four DDL commands with syntax. **(W-18) (2M)**
31) Define: Candidate key and primary key **(W-18) (2M)**
32) Define alternate key.
33) Define primary key and foreign key **(W-19) (2M)**
    OR Define following keys with example.
    i. Primary Key
    ii. Foreign Key
34) State any 4 PL/SQL data types. **(S-19) (2M)**
35) List data integrity constraints.
36) Describe CREATE & ALTER command with syntax and example. **(W-19) (4M)**

37) Write the Query to create a table pass_details with the following attribute constraints:
Pnr_no as primary key, train_no as foreign key, train_name as not null.

Column	Data Type
Pnr_no	Number(5)
Train_no	number(10)
Train_name	Varchar2(10)
Boarding	Varchar2(15)
Destination	Varchar2(15)

38) Create a table emp_details with following attribute constraints:
Empno as primary key, deptno as foreign key, cellno must be unique, grosspay must be greater than 10500.

39) Consider the following database :

Employee (emp_id, emp_name, emp_city, emp_addr, emp_dept, join_date)

Solve the following query:

i. Display Employees name in capital letters.
ii. Display the emp_id of employee who live in city Pune and Mumbai.
iii. Display the details of employees whose joining date is after '01-June.-2007'.
iv. Display the total number of employees whose dept. no. is '10'.

40) Consider the following schema.

EMP (Empno, Ename, Deptno, Dname, Jobid, Salary, Hiredate)

Write SQL queries for following:

i) To insert three rows in the above table
ii) To delete the record of employee John.
iii) To increase salary of Sales department by 10%.
iv) To list the employees having salary between 20000 and 50000.

41) Enlist DML commands. **(W-19) (2M)**

42) List DCL commands. **(S-19) (2M)**

43) Explain difference between delete and truncate command with example **(S-19) (4M)**

44) Explain Drop and Truncate commands with syntax. State the difference between them with example.

45) Describe commit and rollback with syntax and example **(W-18) (4M)**

46) Write command to create table student(rollno,stud_name,branch,class,DOB,city,contact_no) and write down queries for following **(W-19) (6M)**

i) Insert one row into table
ii) Save the data
iii) Insert second row into the table
iv) Undo the insertion of second row
v) Create save point S1
vi) Insert one row into the table

47) Consider following database: **(W-18) (6M)**

employee (emp_id, emp_name, emp_city, emp_addr, emp_dept, join_date)

i) Display emp_id of employee who live in city 'Pune' or 'Nagpur'
ii) Change employee name'Ayush' to 'Ayan'
iii) Display total number of employees whose dept is 50

48) Consider table student(name,marks,dept,age,place,phone,birthdate)

Write SQL query for following: **(S-19)(6M)**

i) To list students having place as'Pune' or 'Jalgaon'
ii) To list students having same department(dept) as that of 'Rachana'
iii) To change marks of 'Rahul' from 81 to 96
iv) To list student name and marks from 'Computer' dept

v) To list student having marks less than 40

vi) To list student who are not from 'Mumbai'

49) List SQL operators and explain range searching operator **between** and pattern matching operator '**like**' with example **(S-19) (4M)**

50) Explain set operators with example. **(W-18) (W-19) (4M)**

51) Explain joins in SQL with example**.** **(W-18) (4M)**

52) Explain types of JOINs. What is OUTER JOIN? Explain in detail.

53) Enlist any 4 aggregate functions. **(W-18) (2M)**

OR Explain any 4 aggregate functions with example **(S-19) (4M)**

54) Explain any 4 string functions with example. **(W-18) (4M)**

OR List any four string functions in SQL **(W-19) (2M)**

55) Explain GROUP BY, ORDER BY and HAVING clause of SQL with example.

56) List and explain any 4 arithmetic operators in SQL with example.

57) Explain string, date and time functions of SQL.

58) List different types of operators

59) Explain any 4 comparison operators

60) Explain logical operators with example