**Unit - I**

1. Define entity?
2. What is Entity set?
3. What is Attribute?
4. Define Tuple?
5. What is Domain?
6. Define key?
7. What is Null?
8. What is Data Modeling?
9. Define Partial dependency?
10. What is Transitive dependency?
11. Define Normalization?
12. Give note on Data Anomalies?
13. What is Cardinality?
14. What is Denormalization?
15. What is Database Design?

**Unit – II**

1. Define Personal Databases?
2. Explain Table locking?
3. What is Client Failure?
4. What is Transaction Processing?
5. What are client/server Databases?
6. What is DDL?
7. Define Data Types?
8. Define VARCHAR?
9. Define Datatype?
10. Define Constraints?
11. What is composite key?
12. Define primary key?
13. Define Foreign key?

**Unit – III**

1. Define Equijoin with example?
2. What is outer Join with example?
3. What is self Join?
4. Define Minus with example?
5. What is Cartesian product?
6. Define Single-row sub-query?
7. Define Multiple –row sub query?
8. What is Inline view?
9. Define Top-N query?
10. What is Correlated subquery?
11. Define Index?
12. What is Sequence?
13. What is View?
14. Define Synonym?
15. Name any five oracle objects?

**Unit - IV**

1. What are the two types of blocks in PL/SQL?
2. Name four standard scalar data types used in PL/SQL?
3. Name three types of variables used in PL/SQL?
4. Give any differences and similarities between := and DEFAULT?
5. What are the control structures?
6. What are Relational operators?
7. Give General Syntax of IF statement?
8. Give General Syntax of IF ELSE statement?
9. Give General Syntax of DECODE?
10. What are the looping structures?

**UNIT – V**

1. State the difference between cursor and dynamic cursor?
2. What is implicit cursor?
3. What is explicit cursor?
4. Define predefined oracle server exception and user-defined exception?
5. What are Composite data types?
6. What is a PL/SQL record?

**PART – B**

**Unit - I**

1. What are the two integrity rules of relational model?
2. What are the different types of key? What is their use?
3. What do you mean by union compatible? Which operations require tables to be union compatible with each other?
4. State the difference between the following :
5. a. Union and intersection b. Product and join c. Selection and projection
6. Explain Data Modeling?
7. Briefly explain Dependency?
8. What is Normal Forms?
9. What is First Normal Form(1NF)
10. Define Second Normal Form(2NF)
11. What is Third Normal Form(3NF)

**Unit – II**

1. What is Personal Databases?
2. Explain Demand on Client and Network?
3. Explain Client / Server Databases?
4. Explain Data Types?
5. Explain about Constraints?
6. Explain DML?
7. What is Adding a new Row/Record?
8. Explain INSERT?
9. Explain NULL Values?
10. What is customized prompts?
11. Explain Updating and Deleting Existing Row/Records?
12. Define Retrieving Data From a Table?
13. Explain Select(\*)?
14. Explain DISTINCT function?
15. Explain Column Command?
16. What is Concatenation?
17. Explain Arithmetic operations?
18. Explain Wild Cards?
19. Explain Sorting?
20. Define Built-in functions?
21. Define Single row functions?
22. What is Character Functions?
23. What is grouping data?

**Unit – III**

1. What is the use of the set operator INTERSECT?
2. In which situation would you use a self-join?
3. When is it appropriate to use an outer join?
4. When would you use a MINUS operation?
5. How would you join five tables in a database?
6. State the various uses of a subquery?
7. In which situations would you use a three-level subquery?
8. What constraints are transferred to the newly created table with a subquery?
9. How does a Top-N query work?
10. What is the use of the INSERT ALL and INSERT FIRST statements?
11. Why are the MERGE statements useful?
12. What are the differences between simple and complex views?
13. When does an automatic commit occur?
14. What is the advantage of creating the following objects?
a. Index b. Sequence c. View d. Synonym
15. When does an automatic rollback occur?
16. For what are the pseudo columns ROWID, ROWNUM, NEXTVAL, and CURRVAL used?

**Unit – IV**

1. What are the two types of blocks in PL/SQL? What are the differences between them?
2. Name four standard scalar data types used in PL/SQL? When is each type used for variables?
3. Name three types of variables used in PL/SQL. Where are they declared? Give a sample declaration of each?
4. What are the advantages of the %TYPE attribute in a variable declaration?
5. What is the difference between CASE and searched CASE statements?
6. Give four differences between the basic loop and the WHILE loop?
7. List the SQL statements allowed and not allowed in a PL/SQL block?

**UNIT – V**

1. What is the difference between non-predefined oracle server exception and user defined exception?
2. What are the four cursor attributes? State their use?
3. What is a cursor FOR Loop? What are the benefits?
4. What are exceptions? What are they handled?
5. Give examples of the assignment of values to fields in a PL/SQL record?
6. What is a PL/SQL table? What are its similarities and difference between a varray and a PL/SQL table?
7. How is a varray of varrays declared? How are its elements referenced?
8. What is a trigger? Explain the working of BEFORE and AFTER triggers?
9. What are the difference between a procedure and a function?
10. Name three types of parameters. List the characteristics of each type?

**PART – C**

**Unit - I**

1. Identify the primary key and Foreign key for the following tables. Also specify the table referenced by the foreign key. If a table does not have a foreign key, leave the entry blank. Some tables have a composite Primary key. Identify all composite key columns for such tables.
2. STUDENT (studentid, Last, First, StartTerm, Birthdate, Facultyid, Majorid, Phone)
FACULTY (Facultyid, Name, Roomid, Phone,, Deptid)
COURSE(coursed, Title, Credits)
CRSSECTION(Csid, Courseid, Section, Termid, Facultyid, Day, Roomid)
REGISTRATION (Studentid, Csid, Midterm, Final)
ROOM(RooType, RoomDesc)
TERM(Termid, TermDesc, StartDate, EndDate)
LOCATION(Roomid, Building, RoomNo, Capacity, RoomType)
MAJOR(Majorid, MajorDesc)
DEPARTMENT(Deptid, Deptname, Facultyid)

|  |  |  |  |
| --- | --- | --- | --- |
| **Table** | **Primary Key** | **Foreign Key** | **Tables Referenced** |
| STUDENT |  |  |  |
| FACULTY |  |  |  |
| COURSE |  |  |  |
| CRSSECTION |  |  |  |
| REGISTRATION |  |  |  |
| ROOM |  |  |  |
| TERM |  |  |  |
| LOCATION |  |  |  |
| MAJOR |  |  |  |
| DEPARTMENT |  |  |  |

1. Discuss different types of relationships and provide examples?
2. Explain ER Diagram?
3. Explain Dependency and its types?
4. Explain First Normal Form(1NF), Second Normal Form (2NF), Third Normal Form(3NF)
5. Explain Dependency diagrams?

**Unit – II**

1. How are client requests served by a server in a personal database and in a client/server database?
2. How transactions are handled by personal and client/server databases in case of a failure?
3. What are the advantages of client/server database over personal database in a multiuser environment?
4. What is the use of Data types? Name four basic data types, and state their use?
5. Explain the Naming Rules and Conventions?
6. How are the Constraints named?
7. Explain Primary and Foreign Key with examples?
8. Does Oracle allow a composite key? If so, how it is defined?

**Unit – III**

1. Explain Join?
2. Explain Outer join?
3. Explain Self Join?
4. Explain Union?
5. Explain Subquery?
6. Explain Top-N Analysis?
7. Explain Merge Statement useful?
8. A Subquery returns three values : 35000, 45000 and 55000. The outlet query has a condition that tests a value of 40000 against three values. If the = ANY, >Any, <ALL> ALL, or <> ALL operator is used, when will the value 40000 satisfy the condition? use each operator separately.
9. How is transaction control important in a shared environment?
10. Name Oracle 9i’s object privileges, what is used to grant all object privileges? what
 is used to grant privileges to everybody?
11. When a table is dropped, what happens to its indexes, synonyms, views and sequences?

**Unit – IV**

1. How will you declare a bind variable named v\_count, use it in a PL/SQL block, and print its value?
2. How do you run a PL/SQL block?
3. Declare a variable, v\_val, which may not have a null value. Assign a value to v-val with a substitution variable, and print that value.
4. Name and explain the control structures used in PL/SQL programming?
5. What is the difference between IF.....THEN.....ELSE........END IF and IF..............THEN....ELSEIF............E NDIF statements?
6. What is the purpose of a SELECT statement in the PL/SQL block? Explain it with an example?

**UNIT – V**

1. Name the error-trapping functions. How are they useful?
2. How are the three types of exceptions declared, raised and handled?
3. How do you declare a PL/SQL record? Explain with an example?
4. How do you declare a PL/SQL table? Explain with an example?
5. What is a varray? How are its elements referenced?
6. How are actual parameters and formal parameters associated? Explain with an example?
7. What are the benefits of using a package? describe two parts of a package and their contents?
8. What data dictionary tables/views are available to get information about named blocks? Give information stored by those views/tables?
9. How are INSTEAD OF triggers different from BEFORE and AFTER triggers?
10. What are the differences between a procedure and a function?