

# QUESTION BANK: RELATIONAL DBMS

## Unit 1 & 2

### Short Questions

1. What is stored procedure?
2. How stored procedure can be invoked?
3. What is recursive stored procedure?
4. How do you apply single line comment on PLSQL statement?
5. How do you apply multi-line comment on PLSQL statement?
6. What is the use of DELIMITER command?
7. Is it mandatory to change the default delimiter before creating a procedure?
8. Why do you require to change the default delimiter before creating a procedure?
9. Which clause is used to assign the value of column stored in a table to a block variable? Give syntax and example.
10. Explain DECLARE statement giving syntax and any 5 examples.
11. Is the following declaration correct? If not rewrite the correct declaration.  

```
DECLARE V_NAME, V_CITY CHAR(20) DEFAULT 'ANKUR';
```
12. Which statement is used to initialize or assign a value to a variable in MySQL?
13. What is the use of DEFAULT keyword? Explain giving an example.
14. Differentiate between CHAR and VARCHAR data types.
15. Differentiate between FLOAT and DOUBLE data types.
16. Differentiate between BLOB and TEXT data types.
17. Give the situations where use of CHAR data type better than VARCHAR.
18. Give the situations where use of VARCHAR data type better than CHAR.
19. Which data type is typically used for currency?
20. What data type is generally used to stored images?
21. Which data type you would use to store an object of size 3.6 GB?
22. List the four types of stored programs in MySql and briefly describe them.
23. Which types of stored program don't need to be called?

24. Which types of stored program gets automatically called when something happens?
25. When trigger gets executed?
26. How does a procedure invoked?
27. How does a function invoked?
28. Write down the syntax for Nested If and If – elseif.
29. For what purpose RETURN statement is used?
30. Is it necessary to place label when we use WHILE with LEAVE statement? Justify.
31. How does WHILE loop construct differs from REPEAT - UNTIL?
32. Differentiate between LEAVE and ITERATE statement.
33. Which statement transfers the control out of the loop without executing the remaining statements?
34. What is Information rule?
35. Write down the syntax of search case statement.
36. In which situation else clause is required in search case statement?
37. In which situation REPEAT - UNTIL loop is used?
38. Which statements are used to break the loop?
39. For what purpose Iterate statement is used?
40. Which symbols are used for following operator in MySql?
  - a. Value is NULL
  - b. Is not equal to
  - c. Matches extended regular expression
41. In which situation it is better to use function rather than procedure?
42. In which situation RETURN statement is used?
43. What is the significant of OUT keyword while working with procedure?
44. Write output of following function where salary=15000, then what is the value of i?

```

CREATE FUNCTION get_sal (salary int) RETURNS int
Begin
  Declare i int;
  CASE
    WHEN salary <= 20000 then
      Set i= salary + 1000;
    WHEN salary <= 18000 then
      Set i= salary + 500;
  End CASE;
  RETURN i;
END//

```

45. How does a procedure having IN parameter called?
46. How a value is returned from a procedure?
47. Consider the given code segment and find error if any.

```

DECLARE V_SALARY INT;
SELECT SALARY INTO V_SALARY FROM EMP WHERE ID=2;
IF(V_SALARY >40000) THEN
  UPDATE EMP SET V_SALARY=V_SALARY+1000 WHERE ID=2;
END IF;

```

48. Consider the given code segment and answer the questions.

```

IF(V_SALARY>=1000) THEN
  SET V_SALARY = V_SALARY +1000;
ELSEIF V_SALARY >=10000 THEN
  SET V_SALARY = V_SALARY +2000;
ELSEIF V_SALARY >=20000 THEN
  SET V_SALARY = V_SALARY +5000;
ELSE
  SET V_SALARY = V_SALARY +1000;
END IF;

```

1. If an employee's salary is 1000 then what would be his updated salary after increment?
2. If an employee's salary is 20000 then what would be his updated salary after increment?

49. State the zero rule of Codd's 12 rule?

50. For what purpose Codd's has given 12 rules?

51. Which of the Codd's rule ensures that correct data type is inserted?

52. Most RDBMS do not make the definition of the primary key mandatory. This is violation of which Codd's rule?

### **Descriptive and scenario based questions**

1. Differentiate between SQL and Procedural SQL.
2. Explain structure of procedural block giving an example.
3. What are the advantages of stored procedure?
4. What are the disadvantages of stored procedure?
5. In which situation else if ladder is used? Demonstrate with an example.
6. List four types of IF statement. Explain any one statement with syntax and example.
7. Explain the syntax of NESTED IF with an appropriate example.
8. Explain WHILE – DO loop and REPEAT – UNTIL loop giving examples.
9. What is the use of case statement? List its type. Explain any one type with appropriate example.
10. Explain CASE and searched CASE statement with their syntax and example.
11. Differentiate between PRETEST & POSTTEST statements. Explain giving examples.
12. Differentiate between LEAVE & ITERATE statements. Explain giving examples.
13. What is exception? How to handle the exception? Demonstrate it with proper example.
14. How SIGNAL statement works? Explain with example.
15. Differentiate between User Defined Function and Stored Procedure.
16. Write the syntax for user defined function and explain each clause.
17. Define procedure. Show differences between procedure and function giving example.
18. How procedure is called? Explain parameterize procedure with example.
19. What is RETURN statement? How to implement RETURN statement in function? Demonstrate with example.
20. Demonstrate use of IN, OUT and INOUT keyword by giving code snippet.

21. Consider the following table:

**INVOICE (ID, NAME, INV\_AMOUNT, DUE\_AMOUNT, INV\_DATE)**

Write a script that creates and calls a stored procedure named test. This stored procedure should declare a variable and set it to the count of all rows in the Invoices table that have a balance due that's greater than or equal to \$5,000. Then, the stored procedure should display a result set that displays the variable in a message like this:

22.     **3 invoices exceed \$5,000.**

Write a script that creates and calls a stored procedure named test. This procedure should calculate the factorial for the number 10. (To calculate a factorial, you multiply an integer by every positive integer less than itself.) Then, it should display a string that includes the factorial like this:

**The factorial of 10 is: 3,628,800.**

23. What are the Codd's 12 Rule? Explain them in details.

### Unit 3

#### Short Questions:

1. What is the purpose of FETCH statement?
2. Draw flowchart of working of cursor.
3. Write uses of SET and FETCH statement of cursor.
4. How to exit from the cursor?
5. How to identify end of the record from the cursor?
6. Which error code is help to terminate the cursor?
7. What is the significant of using SET statement with handler in cursor?
8. When cursor is used in a procedure?
9. Write a significant of cursor in function.
10. If I want to retrieve multiple records from the table then which statement is used?

#### Long Question:

1. How cursor deals with multiple records from table? Show execution by giving example.
2. What is cursor? Explain working of cursor with diagram and its statements.

3. Explain cursor statement by giving its use and example.
4. How Handler helps in cursor? Demonstrate with example.
5. When cursor comes in a procedure? Explain with example.
6. Write usage of OPEN, FETCH and CLOSE statement of cursor with example.

**Practical Based Question:**

1. Consider Table : Feedback\_Master(Enroll\_No, Que1, Que2, Que3, Que4, Que5)

Note: Value of Que1 to Que5 will be (Excellent, Very Good, Good, Average, Poor, Extremely poor)

Write a Procedure that used to count total number of students who gave Excellent, Very Good, Good, Average, Poor and Extremely poor in the question1. [Must Use the concept of Cursor]

Output:

No. of students who gave Excellent in question1 =15

No. of students who gave Very Good in question1 =10

No. of students who gave Good in question1 =5

No. of students who gave Average in question1 =10

No. of students who gave Average in question1 =10

No. of students who gave Poor in question1 =5

No. of students who gave Extremely Poor in question1 =10

2. Counselor of 2nd semester wants to check total numbers of leave applied by each student and total number of granted leave of each student. Write a procedure which takes counselor name as a parameter and implement above functionality.

Consider table: Student(Sid,Sname,Class,Sem,cid), Leave\_master( Lid, LeaveType, Stud\_id, Reason, Status), Counselor(cid,cname)

[Assumption: The Counselor name must be unique].

3. Create a procedure proc\_passPercent() that takes coursename and new passing percentage as input parameter, based on which the passingpercent of that course will be updated and accordingly the result of concerned student would also get updated.

Consider table: Stud(sid, course, passingpercent, percentscored,result).

4. Create a Parameterized Cursor that displays name & salary of each employee in the Emp table whose salary is less than that specified by a passed in parameter value.

Consider table: Emp(eid, ename, salary).