

Total number of printed pages-4

**63 (FY)SEM-3/SEC/BCASEC2013**

**2024**

**COMPUTER APPLICATION**

Paper : BCASEC2013

**(Introduction to PL/SQL)**

Full Marks : 40

Pass Marks : 16

Time : Two hours

**The figures in the margin indicate full marks for the questions.**

1. Choose the correct answer :  $1 \times 5 = 5$ 
  - a. In SQL, which command is used to remove a table along with its data from the database
    - i) DROP
    - ii) DELETE
    - iii) TRUNCATE
    - iv) REMOVE

b. In PL/SQL, which data type would you use for storing a TRUE or FALSE value

- i) BOOLEAN
- ii) INTEGER
- iii) CHAR
- iv) NUMBER

c. What does PL/SQL stand for ?

- i) Procedural Language/SQL
- ii) Programming Language/SQL
- iii) Practical Language/SQL
- iv) Process Language/SQL

d. Which section of a PL/SQL block is optional

- i) DECLARE
- ii) BEGIN
- iii) EXCEPTION
- iv) END

e. Which SQL Command is used to modify existing data in table ?

- i) UPDATE
- ii) MODIFY
- iii) INSERT
- iv) ALTER

2. Answer the following questions : **(any five)**

2×5=10

a. Write the SQL Command to insert a record into a table named employees with columns emp-id, emp-name and salary.

b. What is the difference between implicit and explicit cursors in PL/SQL ?

c. Explain the use of the GROUP by and HAVING clauses in an SQL query.

d. What is the role of the EXCEPTION section in PL/SQL ?

e. What is the difference between %TYPE and %ROWTYPE in PL/SQL ?

f. Write an SQL query to delete all rows from a table named products where the price is greater than 5000.

g. Differentiate between the CHAR and VARCHAR2 data types in PL/SQL.

3. Answer the following questions : **(any three)**

5×3=15

a. Explain the difference between INNER JOIN and CARTESIAN JOIN with example.

- Answer the following questions : (any five)
- b. Explain the structure of a PL/SQL block with an example.
  - c. What are exceptions in PL/SQL? Explain how user-defined exceptions are handled with an example.
  - d. Describe the commonly used data type in PL/SQL. Provide examples for each of the following NUMBER, VARCHAR2 and DATE. How are variables declared and used in PL/SQL?
  - e. Write a PL/SQL block to find the greatest number among three given numbers.
4. Answer the following questions : **(any one)**  
 $10 \times 1 = 10$

- a. Explain the importance of performance tuning in SQL. Discuss how to optimize queries by using the following techniques: Composite, Indexes, Using Joins with GROUP By Clause, OR Clause, optimization unhiding, Functions, Avoiding Inefficient constructs.
- b. Explain the advantages of PL/SQL over SQL. Write a program to demonstrate the use of loops in PL/SQL.