

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)/
BACHELOR OF COMPUTER APPLICATIONS (CYBER SECURITY)/
SPECIALIZATION IN CYBER SECURITY (CS)
EXAMINATION : DECEMBER - 2025/JANUARY-2026
SEMESTER - IV

CB
60:40

Sub: Advanced Database Management System

(BCA – 444-20/BCA23-401/BCA-CS-444-20/BCAC23-401)

Date : 01/01/2026

Total Marks : 60

Time: 2.00 pm to 4.30 pm

Instructions:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labeled diagrams wherever necessary.

Q.1. Fill in the blanks. (5)

1. _____ constraints can be defined only at the column level
 - a) primary key
 - b) foreign key
 - c) NOT NULL
 - d) check key
2. _____ operators is used to compare a value to a list of literal values that have been specified
 - a) BETWEEN
 - b) limit
 - c) like
 - d) AND
3. _____ operator is use to remove duplicate rows
 - a) ONLY
 - b) UNIQUE
 - c) DISTINCT
 - d) SINGLE
4. _____ functions use to get a specified day of the month for a given date
 - a) GETDATE
 - b) DAY
 - c) GETDAY
 - d) DATEPART
5. The _____ statement is used to modify existing data in a table.
 - a) SET
 - b) ALTER
 - c) MODIFY
 - d) UPDATE

Q.2. State True/False. (5)

1. A view is a virtual table.
2. AND is the arithmetic operator used in SQL.
3. PL/SQL is a subset of SQL.
4. A table cannot have more than one attribute, which can uniquely identify the rows
5. ALTER TABLE command enables us to delete columns from a table

Q.3. Answer the following. (Solve any 5) (10)

1. What is the use of group by clause?
2. Write a SQL query to find the second highest salary from an employee table.
3. What is difference between Grant and Revoke?
4. What is difference between CYCLE and NO CYCLE option in sequence

5. What is subquery?
6. What is 'dual' table?

Q. 4. Answer the following in detail. (Solve any 6) (30)

1. What are JOINS? Also explain its types and provide their examples
2. Explain the set operations of SQL?
3. Explain aggregate functions with example
4. What is a cursor? Explain type of cursor
5. Explain architecture of PL/SQL.
6. Explain any 2 types of constraints in Oracle?
7. What is a view? How can it be created? Explain with an example

Q. 5. Answer the following in detail. (Solve any 1) (10)

1. Explain any five string functions with explanations
2. Briefly explain about Data Manipulation Commands with syntax and examples.
