

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BCA DEGREE EXAMINATION MAY 2024  
(Sixth Semester)

Branch – COMPUTER APPLICATIONS

**DISCIPLINE SPECIFIC ELECTIVE – II: ADVANCED DATABASE  
TECHNOLOGIES**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1) In which of the following formats data is stored in the database management system?  
a) Image                      b) Text                      c) Table                      d) Graph
- 2) What is information about data called?  
a) Hyper data                      b) Tera data                      c) Meta data                      d) Relations
- 3) The recovery scheme must also provide \_\_\_\_\_.  
a) High availability    b) Low availability    c) High reliability    d) High durability
- 4) Which one of the following refers to the copies of the same data (or information) occupying the memory space at multiple places?  
a) Data Repository                      b) Data Inconsistency  
c) Data Mining                      d) Data Redundancy
- 5) The database management system can be considered as the collection of \_\_\_\_\_ that enables us to create and maintain the database.  
a) Translators                      b) Programs                      c) Keys                      d) Language activity

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6) a) Explain the steps to protecting against media failure.  
OR  
b) Narrate the audit trails in database security.
- 7) a) Distinguish between the centralized DBMS and distributed DBMS.  
OR  
b) Describe the transparency issue in DDBMS.
- 8) a) Show the limitations of relational database.  
OR  
b) Outline the XML query and transformation with example.
- 9) a) State the emergence of multimedia database.  
OR  
b) Analyze the salient features of Gnome databases.
- 10) a) Describe the major purpose of personal databases.  
OR  
b) Summarize the usage of web databases.

Cont...

**SECTION -C (30 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11) a) Analyze the steps to generating logical query plan from parse tree.  
OR  
b) Compare and construct discretionary access control and mandatory access control.
- 12) a) Discuss the distributed commit protocols 2PC and 3PC.  
OR  
b) Examine the functions of distributed deadlock management.
- 13) a) Identify the difference between semi-structured and unstructured data.  
OR  
b) Enumerate the importance of XML hierarchical model.
- 14) a) Discover the different types of multimedia database.  
OR  
b) Assume the structure of multimedia database.
- 15) a) Elucidate the functions of wireless networks and databases.  
OR  
b) Determine the implementation of digital libraries.

Z-Z-Z

END