PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

Branch – **NETWORKING AND MOBILE APPLICATION**

DATABASE DESIGN AND DEVELOPMENT

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (5 x 1 = 5)

1 What is information about data called?
   (i) Hyper data   (ii) Meta data
   (iii) Tera data   (iv) Relations

2 _____ is a set of one or more attributes taken collectively to uniquely identify a record.
   (i) Primary key   (ii) Candidate key
   (iii) Foreign key   (iv) Super key

3 Procedural language among the following is _____.
   (i) Domain relational calculus   (ii) Relational algebra
   (iii) Tuple relational calculus   (iv) Query language

4 The oldest DB model is _____.
   (i) Network   (ii) Relational
   (iii) Physical   (iv) Hierarchical

5 In the _____ normal form, a composite attribute is converted to individual attributes.
   (i) First   (ii) Second
   (iii) Third   (iv) Fourth

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks   (5 x 3 = 15)

6 a What is the use of database approach? Explain.
                        OR
   b Write about the advantages and disadvantages of DBMS.

7 a Write a note on relational algebra.
                        OR
   b Discuss about multi-table queries.

8 a Briefly explain about indexes.
                        OR
   b Write a note on advanced SQL.

9 a   Explain the attributes in E-R modeling.

OR

  b   Discuss about functional dependencies.

10 a   Write about MangoDB shell.

OR

  b   Brief about Query criteria.

SECTION -C (30 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks   (5 x 6 = 30)

11 a   Discuss about data models and conceptual modeling.

OR

  b   Compare Entity integrity and Referential integrity.

12 a   What are Unary operations? Explain with example.

OR

  b   Explain the following:
      i) Group by (3 marks)   ii) Order by (3 marks)

13 a   Explicate about views in SQL.

OR

  b   Describe about control statements in advanced SQL.

14 a   Discuss about Relationship types in E-R modeling.

OR

  b   Explicate the process of normalization and its types.

15 a   Elucidate about starting Mongo DB with an example.

OR

  b   Discuss about Inserting and Saving documents in MongoDB.

Z-Z-Z   END