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**Code No. : BC-292**

Online Annual Examination, 2022

**B.C.A. Part II**  
**COMPUTER APPLICATION**  
**Paper II**

**Data Base Management System**

Time : Three Hours ] [ Maximum Marks : 80

*Note : Section 'A', containing 10 very short answer type questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.*

**Section 'A'**

*Answer the following very short answer type questions in one or two sentences. 1 × 10 = 10*

1. What is DDL ?
2. Define Data Model.
3. What is Relational Algebra ?
4. Explain UML.

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5. What is Outer join ?
6. Explain complex queries.
7. Define SQL.
8. Define Normalization.
9. Write the syntax of group by construct in select query.
10. What is Optimization ?

**Section 'B'**

*Answer the following short answer type questions with word limit 150-200. 4 × 5 = 20*

1. Explain Data, Information and knowledge.

**Or**

What is Data Dictionary ?

2. Explain weak and strong key.

**Or**

What is Attributes ? Explain its types.

3. What is select and project operation of relational algebra ? Explain.

**Or**

What do you mean by the built-in-functions ? Explain it.

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4. What is functional dependencies ? Explain with example.

**Or**

Explain the BCNF normal form.

5. Explain DML and TCL language with suitable example.

**Or**

What do you mean by Triggers ? Explain it.

**Section 'C'**

*Answer the following long answer type questions with word limit 300-350. 10 × 5 = 50*

1. What is data model ? Explain different types of data models.

**Or**

Explain three layer architecture of DBMS.

2. Explain concept of key and their types with example.

**Or**

Draw an E-R diagram for hotel management system. Explain suitable example .

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3. What is Join ? Explain the different types of Join.

**Or**

What do you mean by embedded SQL ? Explain it.

4. What is Normalization ? Explain the objectives of normalization.

**Or**

What is multivalued dependency ? Explain 4NF.

5. What is the use of SQL ? Explain DROP, ALTER, UPDATE and VIEW queries with example.

**Or**

Explain database recovery in DBMS and its techniques.

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