Roll No…….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

B.Sc. (Graphics & Web Designing) (Semester – 3rd)
DATABASE MANAGEMENT SYSTEMS
Subject Code: BGWDS1303
Paper ID: [21132612]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a) Define entity.
b) What are advantages of using DBMS?
c) Define database triggers.
d) Differentiate between DDL and DML.
e) What is the purpose of normalization?
f) Give an example of BCNF.
g) Define database security?
h) Define concurrency.
i) What is multivalued dependency?
j) Define data independence.

Section – B **(5 marks each)**

Q2. Define data model. Explain network model in brief.
Q3. Explain different set operations in Relational algebra with suitable examples?
Q4. Illustrate the concept of a partial functional dependency and full functional dependency with an example.
Q5. Explain the design of distributes database.
Q6. Differentiate between stored procedures and stored functions.

Section – C **(10 marks each)**

Q7. Explain three level architecture of DBMS with suitable block diagram.
Q8. Describe what is meant by transitive dependency and describe how this type of dependency relates to 3NF. Illustrate your answer with suitable example.
Q9. Write short notes on following: (5 x 2 = 10)

a) Integrity and control
b) Cursors