WEST BENGAL STATE UNIVERSITY

B.A./B.Sc. Honours/Programme 2nd Semester Examination, 2021

CMAHGEC02T/CMAGCOR02T-COMPUTER APPLICATION (GE2/DSC2)

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Answer Question No. 1 and any *four* questions from the rest

1. Answer any *four* questions from the following: 2×4 = 8

   (a) What are the advantages of DBMS?

   (b) Write the different type of data models.

   (c) What is an ER diagram?

   (d) What is trivial functional dependency?

   (e) What is derived attribute? Give example.

   (f) Explain natural join with example.

   (g) What do you mean by one to many relationship?

2. Draw an E-R diagram of Online Examination Management System to show one   8
    to one, one to many and many to one relation.

3. (a) Discuss about the architecture of DBMS.   4

   (b) What are the roles of DBA?   4

4. (a) Explain transitive dependency with an example.   3

   (b) Discuss about Data Manipulation language.   2

   (c) Define schema.   3

5. (a) Define Referential integrity constraint. Explain with an example.   3

   (b) Define Normalization. Why do we need to normalized databases?   5

6. (a) Write SQL statements for the following: 6

    Student (Enrno, name, courseId, emailId, cellno),
    Course (courseId, course_nm, duration)

    (i)   Add a column city in student table.

    (ii) Find out list of students who have enrolled in "computer" course.

    (iii) List name of all students start with "a".

  (b) What is the difference between alter and update command in SQL?   2

7. (a) What is functional dependency? Explain its use in database design.   5

  (b) What is 3NF?   3

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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