



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours/Programme 2nd Semester Examination, 2020

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) Define Database.
 - (b) Define data dictionary.
 - (c) What is a derived attribute?
 - (d) What is functional dependency?
 - (e) What is the degree of a relation?
 - (f) Define a candidate key.
 - (g) What is DML (Date Manipulation Language)?

2.
 - (a) Describe three levels architecture of DBMS. 4+4
 - (b) What are the roles of DBA (Database Administrator)?

3. Differentiate between the following: 2+3+3
 - (a) Lossless decomposition and lossy decomposition
 - (b) 2 NF and 3 NF
 - (c) Primary key and Foreign key.

4. Briefly discuss on different data models. 8

5.
 - (a) What is Normalization? Why normalization is needed? 1+3
 - (b) Differentiate between 3NF and BCNF. 4

6.
 - (a) Differentiate between HAVING clause and WHERE clause. 4
 - (b) Differentiate between DROP, TRUNCATE and DELETE commands. 4

7. What is an E-R diagram? Draw an E-R diagram of Hospital Management System to show one to many, many to one, one to one and IS A relation. 8
8. (a) What are the advantages of DBMS over traditional file system? 4
- (b) What are the disadvantages of DBMS? 4

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.*

—×—