



WEST BENGAL STATE UNIVERSITY
B.A./B.Sc. Honours/Programme 2nd Semester Examination, 2022

CMAHGEC02T/CMAGCOR02T-COMPUTER APPLICATION (GE2/DSC2)

DATABASE MANAGEMENT SYSTEM

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 any five questions from the following

8×5 = 40

1. Answer any **four** questions from the following:

2×4 = 8

- What is primary key?
- What is foreign key?
- What is Derived attribute?
- What are the functions of DBA?
- Write one DDL command name with syntax.
- How we denote the “Select” and “Project” operation in Relational Algebra?
- Define database “Schema”.

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

8

3. (a) What is primary key? Give example.

2+6

(b) Discuss about the components of DBMS.

4. (a) Discuss the INSERT, UPDATE and DELETE statements with example.

2+2+4

(b) Describe the query processing.

(c) What is outer join explain with an example?

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

6+2

Account (Acc_no, Balance, B_name).

Depositors(C_name, Acc_no).

(i) Find name of the customer having account in “Barasat” branch.

(ii) List name of all customers start with “S”.

(iii) Find out a list of all customers who have balance more than 100000.

(b) What is the Difference between Primary key and Super key?

6. (a) Differentiate between normalization and de-normalization. 2+4+2
(b) Explain 1NF, 2NF and 3NF with example.
(c) What is instance?
7. Write short notes on (any *two*) 4+4
(a) DBA
(b) Generalization
(c) Data model
(d) Three schema architecture.

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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