

2023

**DATABASE MANAGEMENT SYSTEM AND
SYSTEM ANALYSIS AND DESIGN — HONOURS**

Paper : DSE-5.2eBH

Full Marks : 80

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Module - I

(Database Management System)

Group - A

1. Differentiate between Primary and Secondary Indexing. 4

Or,

Write the significance of Indexing. 4

2. What are the disadvantages of DBMS over traditional database systems? 4

3. Highlight any four roles of a database administrator in any service sector of your choice. 4

4. What is the significance of BCNF? 4

Or,

Discuss the need of normalization in DBMS. 4

Group - B

5. Through a real-life example describe the Relational Model. 6

Or,

Compare network and relational model in DBMS. 6

6. Discuss, in detail, the various data optimisation challenges. 6

Or,

Discuss the application of 'SQL constraints' and 'embedded SQL'. 6

7. Draw the ER model based on the following :

(a) Customer (ID, name, address)

(b) Account (no., balance). 6

8. Define DDL and DML with example. 6

Please Turn Over

Module - II
(System Analysis and Design)
Group - C

9. Discuss about the waterfall model. 4

Or,

Compare between spiral and waterfall model. 4

10. Highlights major steps in System Development methods. 4

Group - D

11. What is the need of process modelling? 5

12. Explain the advantages of User Interface design. 5

13. Write a note on data flow diagram. 5

14. Discuss any two object modelling techniques. 5

Or,

Discuss the advantages of Decision Table. 5

Group - E

15. Explain the development methodologies in designing a system in any service sector of your choice. 6

Or,

What are the different phases in System Development? 6

16. (a) What is regression testing? 3

(b) What do we need test case generation? 3