

2023

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

Paper : DSE-5.2eBG

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. Discuss any four challenges of a Database Administration. 4
2. Explain the concept of Normalization in DBMS. 4
3. Write notes on : Schema Architecture. 4
- Or,*
- What do you mean by Data abstraction? 4
4. What is indexing in DBMS? 4
- Or,*
- What do you need clustering in DBMS? 4

Group - B

5. Discuss the Relational Model with a diagram and example. 6
6. Write a note on : Challenges of SQL. 6
- Or,*
- Why do we need SQL? 6
7. Draw the ER diagram for a College. 6
- The entities involved are : (a) Name, (b) Principal, (c) Students, (d) Courses. 6
- Or,*
- What are the different phases of Database Design? 6

Please Turn Over

8. (a) What are the uses of DCL? 2+4
(b) Briefly discuss the challenges of RDBMS.

Module - II
(System Analysis and Design)

Group - C

9. Discuss about the Spiral Model. 4
10. What are the major barriers of system development? 4
Or,
Describe the challenges of Waterfall Models with suitable example. 4

Group - D

11. Explain the bottom-up system design development. 5
12. What is the need for process modelling? 5
Or,
Discuss the challenges in User Interface Design. 5
13. Discuss the various forms of data flow diagram with significances. 5
14. What are the uses of Data Dictionary? 5
Or,
Write a short note on advantages of Decision Tree and Decision Table. 5

Group - E

15. Explain the challenges of regression testing. 6
16. What are the needs of data flow diagram? 6
Or,
Highlight the challenges associated with object modelling. 6
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