

2022

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

Paper : DSE-5.2 eBG

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

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|---|-----|
| 1. Discuss any four functions of a database administration. | 4 |
| 2. Explain the terms : 3NF, 2NF. | 2+2 |
| 3. Write a short note on Data Definition Language. | 4 |

Or,

Mention four important features of Data Control Language. 4

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|---------------------------------|---|
| 4. What is multilevel indexing? | 4 |
|---------------------------------|---|

Or,

What do you mean by clustering in indexing? 4

Group - B

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|---|---|
| 5. Discuss the hierarchical model with diagram and example. | 6 |
| 6. Write a note on Embedded SQL. | 6 |

Or,

What are the advantages of SQL? 6

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|--|---|
| 7. Draw the ER diagram for a school.
The entities involved are : (a) School Name, (b) Principal/Rector, (c) Students, (d) Subjects. | 6 |
|--|---|

Or,

What is the ER Model in database design? 6

Please Turn Over

8. (a) What are the uses of Data Manipulation Language?
(b) Briefly discuss the challenges of DBMS. 2+4

Module-II

(System Analysis and Design)

Group - C

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

Group - D

11. Explain the top down system design development. 5
12. What is process modelling? 5
Or,
Discuss the steps in User Interface Design. 5
13. "Both physical and logical data flow diagrams play a pivotal role in process modelling." — Discuss. 5
14. What are the features of data dictionary? 5
Or,
Write a short note on Decision Tree and Decision Table. 5

Group - E

15. Explain the features of regression testing. 6
16. What are the components of data flow diagram? 6
Or,
Highlight the techniques of object modelling. 6
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