

Bachelor of Science (B.Sc.)-II (CBCS Pattern) Third Semester CBCS  
**USCST05 -Computer Science Paper-I**  
**Database Management & System Analysis**

P. Pages : 2

Time : Three Hours



**GUG/W/18/11602**

Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal mark.
  2. Draw neat and labelled diagram wherever necessary.
  3. Avoid vague answers and write answer relevant and specific to question only.

**1. Either**

- |  |          |
|--|----------|
| a) Explain DBMS in detail.                   | <b>5</b> |
| b) What is DBA? Enlist the functions of DBA. | <b>5</b> |

**OR**

- |                                       |          |
|---------------------------------------|----------|
| c) Discuss the components of DBMS.    | <b>5</b> |
| d) Discuss object base logical model. | <b>5</b> |

**2. Either**

- |  |          |
|--|----------|
| a) Explain Codd's rules.                         | <b>5</b> |
| b) Explain First Normal Form (1NF) with example. | <b>5</b> |

**OR**

- |  |          |
|--|----------|
| c) Differentiate between 2NF and 3NF.            | <b>5</b> |
| d) Explain Fifth Normal Form (5NF) with example. | <b>5</b> |

**3. Either**

- |  |          |
|--|----------|
| a) Explain the Data flow diagram used in structure analysis. | <b>5</b> |
| b) Explain the components used in system.                    | <b>5</b> |

**OR**

- |   |          |
|---|----------|
| c) Describe Decision table used in system analysis.         | <b>5</b> |
| d) Explain the advantages of Questionnaires over Interview. | <b>5</b> |

**4. Either**

- a) What is Form? Explain form Design in detail. **5**
- b) What is Documentation? Explain types of documentation. **5**

**OR**

- c) How hardware selection is done for implementation of system? Explain. **5**
- d) Discuss maintenance of a system in detail. **5**

**5. Solve all questions.**

- a) Write a note on Data Processing. **2½**
- b) Write a note on cartesian product. **2½**
- c) Write a note on Data Dictionary. **2½**
- d) Explain output Design. **2½**

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