

Sr. No. 3061**Exam.Code:105704****Subject Code : 1586****B.Sc. Information Technology - 4th Sem.****(2518)****Paper: I****Database Management System****Time allowed: 3 hrs.****Max. Marks: 75**

Note: Attempt any five questions. All questions carry equal marks. The students can use only non-programmable and non-storage type calculator.

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| Q1. | What do you mean by DBMS? What are various components of DBMS? Discuss in detail. | 15 |
| Q2. | Elaborate the three-level architecture of database system? Why we need mappings between the levels? Briefly discuss the components of a DBMS. | 15 |
| Q3. | Discuss in detail the entity relationship model with the help of suitable examples. | 15 |
| Q4. | What is Normalization? Why we need to normalize databases? What are its advantages? Explain giving examples. | 15 |
| Q5. | What are the problems arising out of concurrent data access? How concurrency is managed? | 15 |
| Q6. | What are various DDL commands available in SQL? Explain any 5 commands in detail with their purpose and syntax. | 15 |
| Q7. | What are Cursors? Differentiate between implicit and explicit cursors. Give examples of Implicit and explicit Cursors. | 15 |
| Q8. | What does trigger mean? What are its uses and explain its working? Compare database triggers and procedures. | 15 |

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