



Model Paper – I

Examination-2016

BCA II

Database Management System

Time: 3 Hrs.

MM:100

I) Very Short Answer Questions (each carrying 1 marks) 2*10=20

- Q1. What is Normalization?
- Q2. Define Logical and Physical data independence.
- Q3. Differentiate between entity set and value set.
- Q4. Write down 4 DML commands with syntax.
- Q5. Define transaction log.
- Q6. State reasons which cause a database failure.
- Q7. Define multivalued dependency.
- Q8. What is referential integrity constraint?
- Q9. What is locking? State its types.
- Q10. What are the different SQL data types?

II) Short Answer Questions (each carrying 4 marks) 4*5=20

- Q1. Explain cardinality constraints.
- Q2. What are the different types of inner joins? Explain in brief.
- Q3. Explain ACID properties.
- Q4. Explain any four application areas where database is used.
- Q5. Draw E-R diagram for library system.

III) Long Answer Questions (each carrying 12 marks) 12*5=60

- Q1. Describe DBMS architecture in detail.
- Q2. Write down both relational algebra and SQL queries for given statements considering the following relation:
PROJECT(Project_no, Project_name, chief)
EMPLOYEE(Emp_no, Emp_name)
ASSIGNED(Project_no, Emp_no)
 - a) Display chief name coordinating the project on "DBMS".

- b) Get details of employees working on project 105.
- c) Display those Emp_no to whom no project is assigned.
- d) Display the name of chief under whom Mr. George is doing his project.

- Q3. What are 1NF, 2NF and 3NF? Describe them with suitable example.
- Q4. Why commit protocol is used. Explain two-phase and three-phase commit protocol.
- Q5. Explain the concept of Object Oriented data model in detail.