

(21213)

Roll No.

(2)

BCA-V Sem.

18021

B. C. A. Examination, Dec. 2013

Introduction to DBMS

(BCA-501)

(New)

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt all the Sections as per instructions.

Section-A

(Very Short Answer Questions)

Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words. $3 \times 5 = 15$

1. Explain instances and schemas in brief.

2. Define inheritance in terms of DBMS.
3. Explain the three level architecture of database management system in brief.
4. What are the differences between logical data independence and physical data independence ?
5. What is meant by data model ? Explain Relational model.

Section-B

(Short Answer Questions)

Answer any *two* questions out of the following three questions. Each question carries $7\frac{1}{2}$ marks. Short answer is required not exceeding 200 words. $7\frac{1}{2} \times 2 = 15$

6. Construct an E-R diagram that consists of employee, job and branch related through the relationship set works on.
7. What are weak entity sets ? Explain the primary key, secondary key and candidate key.
8. Explain the term generalization and specialization.

18021

(3)

Section-C

(Detailed Answer Questions)

Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. 15×3=45

9. What is structured query language ? Give its characteristics and advantages.
10. Consider the following relational schema :
- (An employee can work in more than one department)
- Emp (Eid, Ename, Salary)
- Works(Eid, did)
- Dept (did, dname, managerid, floornum)
- Write the following in SQL :
- (i) Print the names of the departments that employees who works on floor(s) where Mukesh Rawat works.
- (ii) Print the names of all employees who works on floor (s) where Mukesh Rawat works.

(4)

11. What is normalization ? Explain in detail 1st, 2nd and 3rd Normal Form in detail with importance.
12. What do you mean by hashing and explain all collision resolution techniques in detail ?
13. What do you understand by transaction system ? Give the ACID properties of transaction system.