



11534

B.Sc. V Semester Degree Examination, November/December 2016
COMPUTER SCIENCE (New)
Paper – 5.1 : Database Management System

Time : 3 Hours

Max. Marks : 80

Instruction : All Parts are compulsory.

PART – A

- I. Answer **any ten (10)** of the following : **(2×10=20)**
- 1) Mention types of workers behind scene.
 - 2) Define a tuple.
 - 3) Define instance.
 - 4) Define data independence.
 - 5) Expand DDL and SDL.
 - 6) Define an entity. Give an example.
 - 7) List out different types of attributes.
 - 8) What are the basic update operations on relations ?
 - 9) What is a primary key ? Give example.
 - 10) Mention any two examples of functional dependencies.
 - 11) Write the SQL command for creating a table for student with regno, name, class and combination fields.
 - 12) What are the weak entity and strong entity ?

PART – B

- II. Answer **any six (6)** of the following : **(6×5=30)**
- 1) Explain characteristics of Database Approach.
 - 2) Explain End Users.
 - 3) Draw an E-R diagram to show the student entity details.
 - 4) Explain different degree of a relationship type with examples.

P.T.O.



- 5) Explain types of keys in DBMS.
- 6) What is a normalization ? Explain First Normal Form (1NF)
- 7) What is a DBA ? Explain responsibility of a DBA.
- 8) Explain desirable properties of transactions.

PART – C

III. Answer **any three (3)** of the following :

(3×10=30)

- 1) Explain 3-schema architecture with a neat diagram.
- 2) Explain E-R notations.
- 3) Explain different interfaces.
- 4) Explain different types of attributes.
- 5) Define a data model. Explain Hirarchical, Network and Relational data models with examples.



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Paper – 5.2 : OOPs with C++

Time : 3 Hours

Max. Marks : 80

PART – I

Answer any ten :

(10×2=20)

1. What is the use of scope resolution operator ?
2. Write the purpose of : C_{out} & C_{in} statements in C++.
3. Mention any four applications of OOP.
4. What is symbolic constant ? How do you declare it ?
5. State any four OOP languages.
6. State memory management operators of C++.
7. Mention any two properties of static data members.
8. State any four math library functions available in C++.
9. What is the use of dot membership operator ?
10. Distinguish between call by value and call by reference.
11. What is the use of friend function ?
12. Define : Constructor , Destructor.

PART – II

Answer any six :

(6×5=30)

1. Write a note on formatted I/O operations in C++.
2. State any five benefits of OOP.
3. Write a C++ program to demonstrate the concept of default arguments.
4. Explain any five types of expressions in C++.

P.T.O.



5. Write the syntax and purpose of open() and close() related to files.
6. Write a C++ program to add two distance variables.
7. Write a note on function template.
8. Give the basics of exception handling.

PART – III

Answer **any three** :

(3×10=30)

1. Explain the inheritance techniques available in C++.
 2. Write a C++ program to Swap two numbers using friend function.
 3. Write a note on pure virtual functions.
 4. Explain the basic concepts of OOP.
 5. Explain the string manipulation in C++.
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