

III Semester B.A. / B.Sc. Examination, October/November 2012  
(Semester Scheme) (F+R)  
COMPUTER SCIENCE (Paper – III)  
OOps Using C++ and DBMS

Time : 3 Hours

Max. Marks : 60 (R) /70 (F)

- Instructions :** 1) Repeaters have to answer Section A, B and C only, which carries 60 marks (Prior to 2012-13).  
2) Freshers have to answer Section A, B, C and D, which carries 70 marks (2012-13 and onwards).  
3) 70 marks for Fresh students of 2012-13.  
4) 60 marks for the students Prior to 2012-13.

SECTION – A

I. Answer any 10 questions.

(1×10=10)

- 1) What is string constant ?
- 2) What is the difference between = and the == symbols ?
- 3) What is an array ?
- 4) How many values can a function return ?
- 5) Define class.
- 6) What is default constructor ?
- 7) Define DBMS.
- 8) What is a tuple ?
- 9) What do you mean by a degree of relation ?
- 10) What is normalization ?
- 11) Give the syntax of the INSERT command.
- 12) What is a distributed database ?

P.T.O.



## SECTION - B

II. Answer any 5 questions.

(3×5=15)

- 13) What is looping statement ? Explain.
- 14) What are the different types of array ? Give examples.
- 15) Mention different storage classes in C++.
- 16) What are virtual functions ?
- 17) What are the advantages of DBMS ?
- 18) Explain three-schema architecture.
- 19) What are the components of an E-R-diagram ?

## SECTION - C

III. Answer any 5 questions.

(7×5=35)

- 20) a) Mention different types of operators in C++.
- b) Write a program to test whether a number is prime or not.
- 21) a) Explain parameterized constructor with an example.
- b) Explain operator overloading.
- 22) a) Describe the various inheritance in C++.
- b) Explain Friend function.
- 23) Write a program to implement stack operations using C++.
- 24) Write a brief note on the following :
  - a) DML
  - b) DDL
  - c) DBA.

(2+2+3)

- 25) a) Explain Network data model. 4
- b) Explain data abstraction in detail. 3
- 26) What is relational algebra ? Explain in detail. 7
- 27) What is integrity ? Explain in detail. 7

SECTION – D

**(2012-13 and Onwards Students Only)**

IV. Answer any 1 question. (10×1=10)

- 28) What is polymorphism ? Explain in detail with an example.
- 29) Create an E-R Diagram to implement student database.

