



SN – 403

III Semester B.A./B.Sc. Examination, November/December 2017  
(Repeaters) (Prior to 2014 – 15) (2012 – 13 & Onwards)

COMPUTER SCIENCE – III  
OOps Using C++ & DBMS

Time : 3 Hours

Max. Marks : 70

**Instructions :** 1) Answer *all* the Sections.  
2) Repeaters (2012 – 13 onwards) have to answer Section (A, B, C, D).

SECTION – A

I. Answer **any 10** questions. Each question carries **one** mark.

(10×1=10)

- 1) Define Data Encapsulation.
- 2) What are identifiers ?
- 3) Write the syntax of simple-if statement in C++.
- 4) What is function overloading ?
- 5) Define base class.
- 6) Explain any one file stream in C++.
- 7) What is data independence ?
- 8) Define primary key.
- 9) What is tuple ?
- 10) Write any one feature of SQL.
- 11) What is normalization ?
- 12) Give the syntax of create command.

SECTION – B

II. Answer **any 5** questions. Each question carries **three** marks.

(5×3=15)

- 13) Explain any 2 looping statements in C++.
- 14) What is an Array ? Explain its type.

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- 15) Explain Access Specifiers in C++.
- 16) Write a note on static member function.
- 17) What is relationship ? Explain.
- 18) Explain different datatypes used in SQL.
- 19) Write about union and intersection operations in relational algebra.

SECTION – C

III. Answer any 5 questions. Each question carries seven marks. (5x7=35)

- 20) Explain defining a class and declaring an object. Write a C++ program to read and display employee data (use appropriate data members).
- 21) What are default arguments ? How are they passed to a function ? Explain with suitable example.
- 22) What is inheritance ? Explain different types of inheritance.
- 23) Explain role, responsibilities and functions of DBA.
- 24) a) With neat diagram explain 3 schema architecture. 5  
b) What is degree and cardinality of a relation ? 2
- 25) Explain 3 DML commands with syntax and example.
- 26) Write a note on :
  - a) Relational model. 4
  - b) Network model. 3
- 27) Explain select command in detail.

SECTION – D

IV. Answer any one question. Each question carries ten marks. (1x10=10)

- 28) Write a C++ program to find sum, different and product of 2 complex numbers using operator overloading.
- 29) Create an E-R diagram to implement student and course database.