

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.A./B.Sc (General) 3rd Semester
(2123)



INFORMATION TECHNOLOGY

Paper-A : Computer Programming using C++

Time Allowed : Three Hours]

[Maximum Marks :65

Instructions to the Candidates :

Candidate is required to attempt *five* questions in all including Question No. 9 (Which is COMPULSORY) and attempt remaining four questions by selecting one Question from each Section.

SECTION—A

1. (a) Write down the structure of C++ Program. Explain with example. 7
- (b) What do you understand by inline functions ? Explain with example. 6
2. (a) Differentiate between pass by value and pass by reference for passing objects as function argument. 7
- (b) What is the role of friend function in C++ ? Explain with example. 6

SECTION—B

3. What is constructor ? List down its characteristics. Explain its types with syntax. Explain Copy Constructor in detail with suitable example. 13

4. What is inheritance ? What are its types ? Explain with examples that how public, private and protected inheritance is done in single inheritance. 13

SECTION—C

5. (a) What is the use of pure virtual functions ? 6
(b) Explain how the classes can be read from or write to a files using suitable example. 7
6. (a) What is the difference between early binding and late binding ? 6
(b) Explain the concept of handling binary file operations in C++. 7

SECTION—D

7. (a) What do you understand by complexity of Data Structure ? Explain its types. 6
(b) Write a program in C++ to implement stack using array. 7
8. (a) What is Link List ? Write a program in C++ to insert N elements in a single link list. 7
(b) What is an array ? What are its types ? Explain its memory representations. 6

COMPULSORY QUESTION

9. (a) Define circular link list. 2
(b) What do you understand by file streams ? 2
(c) What are the different visibility modes available in C++? 3
(d) What is destructor ? When a destructor is called ? Explain the syntax of destructor. 3
(e) What is scope resolution operator ? Explain its three uses in C++. 3