

**BCA - 10**

December - Examination 2015

**BCA II<sup>nd</sup> Year Examination****Object Orientated Programming in C++****Paper - BCA - 10****Time : 3 Hours ]****[ Max. Marks :- 100**

**Note :** The question paper is divided into three sections A, B and C. Write answers as per the given instructions.

**Section - A**

10 x 2 = 20

(Very short Answer Questions)

**Note :** Answer all questions. As per the nature of the question you delimit answer in one word, one sentence or maximum up to 30 words. Each question carries 2 marks.

- 1) (i) What are object based programming languages?
- (ii) Which forms(s) of comment is/are supported by C++?
- (iii) Can we provide default arguments, to a particular argument in middle of an argument list? Support your answer with brief description.
- (iv) What are destructors? How they are distinguished, from other member functions of class?
- (v) Which operators cannot be overloaded?
- (vi) Which operator is used to access, data members of structure using pointer to structure?

- (vii) What do you mean by this pointer?
- (viii) Explain the term 'Encapsulation', in context of object oriented programming.
- (ix) How static members are different from ordinary members of class?
- (x) Explain role of manipulator 'setw'.

### **Section - B**

10 x 4 = 40

(Short Answer type Questions)

**Note :** Answer any 4 questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) What are benefits of Object Oriented Programming?
- 3) Explain structure of C++ program, with suitable diagram and Example.
- 4) Explain with suitable example, how do-while loop is different from for and while loop?
- 5) How can a member function of class be defined, explain with suitable example.
- 6) What advantages does inline function have over ordinary function? Explain with example.
- 7) What are friend functions? Illustrate the use of friend functions with suitable C++ program.
- 8) Write and explain a C++ program to overload any binary operator using member function.
- 9) Explain virtual function and pure virtual functions.

**Section - C**

2 x 20 = 40

(Long Answer Questions)

**Note :** Answer any two questions. You have to delimit your each answer maximum up to 500 words. Each question carries 20 marks.

- 10) What are reference variables in C++ ? Explain with suitable example, how reference variables are created and utilized?
- 11) What are constructors? Explain following type of constructors, with suitable example:
  - (i) Default Constructor
  - (ii) Parameterized Constructor
  - (iii) Dynamic Constructor
  - (iv) Conversion Constructors
  - (v) Copy Constructors
- 12) Explain with suitable diagram and example, different forms of inheritance.
- 13) Explain exception handling mechanism with suitable diagram and example.

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