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B.C.A. Examination, 2021

Third Semester

First Paper

(Object Oriented Programming Using C++)

Time : Three Hours]   *[Maximum Marks : 75*

Note : Attempt any **five** questions. **All** questions carry equal marks.

Note : The answers to short questions should not exceed 200 words and the answers to long questions should not exceed 500 words.

1. Describe the following characteristics of OOP: 15

   (a) Encapsulation

   (b) Polymorphism

   (c) Inheritance

P.T.O.

2. (a) Discuss the issues of procedure oriented systems with respect to object oriented systems?   10

   (b) Why C++ introduced reference variable?   5

3. (a) What is a class? How is it created? Write an example class.   8

   (b) What are constructors? How are they different from member functions?   7

4. Explain the following :

   (a) C++ Garbage Collection   5

   (b) Dynamic Memory Allocation   5

   (c) Abstract Class   5

5. Discuss with examples, the implications of deriving a class from an existing class by the 'public' and 'protected' access specifiers.   15

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6. What is the use of operator overloading? Write a program to overload post and pre increment operators. 15

7. What is the ambiguity that arises in multiple inheritance? How it can be overcome. Explain with example. 15

8. (a) What is the use of Function overloading? Explain with suitable example. 8

   (b) Explain Generic function with example. 7