Roll No…….. **Total No. of Printed Pages: 1**
Total No. of Questions: [09]

BCA (Semester – 2nd)
OBJECT ORIENTED PROGRAMMING USING C ++
Subject Code: BCAP1206
Paper ID: 160106

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:
(a) What is object based and object-oriented programming language?
(b) Which operators cannot be overloaded and why?
(c) Why the object of pure virtual class is not created?
(d) What is the difference between containership and Inheritance?
(e) What is the use of register variable?
(f) What is static member function?
(g) How the code is reused in OOPs?
(h) Why we used run time polymorphism?
(i) What is use of copy constructure?
(j) How would you deallocate and allocate memory in C++?

Section – B **(5 marks each)**

Q2. How object-oriented programming is better than procedural language? Explain the various characteristics of object-oriented programming language?
Q3. How can we achieve reusability of class in OOPS? Also, explain operators overloading and function overloading with example.
Q4. What is a recursive process? Write a program in C++ to generate the Fibonacci series up to N terms using recursion, where N is provided at runtime.
Q5. What are the different forms of inheritance supported by C++? Write a C++ program for calculating the area of rectangle and circle using run time polymorphism.
Q6. What do you mean by predefined steam? How a new file is created to store and retrieve details using I/O classes.

Section – C **(10 marks each)**

Q7. Differentiate between the following:
a) Variable and static variable
b) Call by value and Call by reference
c) Constructor and destructor
d) Sequential and Random file organization
Q8. Write Short note on following: -
a) Overloading with friend function
b) Runtime polymorphism with pointer
c) New and delete operator
d) Break and continue statement
Q9. Why exception handling is required in Programming language? When do we need multiple catch blocks for a single try block? Explain with most suitable example.