

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.