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**BCA-MCA Dual Degree (Semester –2<sup>nd</sup>)**  
**OBJECT ORIENTED PROGRAMMING LANGUAGE IN C++**  
**Subject Code: BMCAS1204**  
**Paper ID: 19340109**

**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 do you mean by Encapsulation? How it is implemented in C++
- b. List any four data types in C++
- c. Describe inline function in C++ with example.
- d. Differentiate between Error and Exception.
- e. What are recursive functions in C++
- f. Describe the relationship between child and parent class.
- g. Differentiate between header & library files
- h. Discuss function overloading with example
- i. Explain the significance of protected class.
- j. What is understood by default arguments?

**Section – B**

**(5 marks each)**

Q2. Define class & objects. Give an example of Nested classed

Q3. What is Constructor? Explain types of Constructors with example

Q4. Explain public, private and protected access specifiers and show their visibility when they are inherited as public, private and protected.

Q5. Differentiate between overloading & overriding

Q6. Write a short note on

- a. Scope resolution operator
- b. Manipulators

**Section – C**

**(10 marks each)**

Q7. Define arrays. Discuss multidimensional arrays. How these are passed in Functions

Q8. Define Object-oriented programming and Explain feature of Object-oriented programming. How it is different than procedure-oriented programming.

Q9. Write short note on

- a. Abstract Class & Virtual classb. File Handling