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## MCA DEGREE III SEMESTER EXAMINATION NOVEMBER 2015

## CAS 2303 OBJECT ORIENTED PROGRAMMING WITH C++

(Supplementary)

Time: 3 Hours

Maximum Marks: 50

## PART A (Answer ALL questions)

 $(15 \times 2 = 30)$ 

- I. (a) What is an object? How is an object created? Explain its characteristics.
  - (b) What are operators? Explain different types of operators.
  - (c) Explain exception handling.
- II. (a) Explain data encapsulation with suitable examples.
  - (b) Explain function overloading with example.
  - (c) Explain function with default arguments.
- III. (a) How do you define an inline function?
  - (b) Explain the significance of static keyword.
  - (c) How do you define named constants in C++? Give example.
  - IV. (a) What is copy constructor? Give suitable example.
    - (b) How do you create objects dynamically? Give examples.
    - (c) What is operator overloading? What are the operators that cannot be overloaded?
  - V. (a) Compare Inheritance with Composition.
    - (b) Explain Polymorphism.
    - (c) What is a function template? What are its advantages?

(P.T.O.)

## PART B

 $(5 \times 4 = 20)$ 

VI. Explain various object oriented concepts supported by C++.

OR

VII. Explain major data types supported by C++ with suitable examples.

VIII. Explain storage classes with example.

OR

IX. Explain constructor overloading with example.

X. Explain namespace with example.

OR

XI. What is dynamic binding? Explain with example.

XII. Briefly explain coupling and cohesion.

OR

XIII. Write a class for complex number with overloaded operator services for addition and subtraction.

XIV. Explain different types of inheritance with suitable examples.

OR

XV. Explain virtual function with example.

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