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ES203
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Enrol. No. .....

END SEMESTER EXAMINATION : APRIL-MAY, 2019

OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hrs. *Maximum Marks : 70*

Note: ***Attempt questions from all sections as directed.***

SECTION – A (30 Marks)

Attempt any **five** *questions out of* **six.**
Each question carries **06** *marks.*

1. Explain briefly characteristics of OOPS language and mention advantages of OOPS approach over functional/procedural programming.

2. Explain how can polymorphism be achieved at (a) compile time, and (b) run time?

3. Explain operator overloading with the implementation of Complex numbers.

4. Explain the significance of 'this' pointer using an example and what are the applications of 'this' pointer.

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5. Write a program to swap the two numbers using

(a) Call by reference

(b) Call by value

6. Differentiate between following terms with examples :

(a) Abstraction and Encapsulation.

(b) Function Overloading and Function Overriding.

SECTION – B (20 Marks)

Attempt any **two** *questions out of* **three.**
Each question carries **10** *marks.*

7. Create a program that uses multiple inheritance and contain function having same name in both the base classes. Solve the ambiguity using :

(a) Overriding by derived class function.

(b) Scope resolution operator.

8. What is meant by member access modifiers? Explain Exception handling with example.

9. (a) Illustrate the reserved word inline with two examples.

(b) Explain the constructors and destructors. Support your answer with examples.

SECTION – C

(20 Marks)

(Compulsory)

10. (a) Write a programme in C++ which read and print employee information with department and pf information using hierarchical inheritance. (10)

(b) WAP in C++ to implement array of objects, creating a class employee and accepting and displaying multiple datasets accepted by the user using array of objects. (10)