

310406

Roll No. \_\_\_\_\_

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**310406**

**B. Tech. III Sem. (Main) Exam., Dec. - 2019**

**Common for CS/IT**

**3CS4-06 Object Oriented Programming**

**Time: 3 Hours**

**Maximum Marks: 120**

**Instructions to Candidates:**

**Part – A:** Short answer questions (up to 25 words)  $10 \times 2$  marks = 20 marks. All ten questions are compulsory.

**Part – B:** Analytical/Problem Solving questions  $5 \times 8$  marks = 40 marks. Candidates have to answer five questions out of seven.

**Part – C:** Descriptive/Analytical/Problem Solving questions  $4 \times 15$  marks = 60 marks. Candidates have to answer four questions out of five.

*Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

*Use of following supporting materials is permitted during examination. (Mentioned in form No. 205)*

1. NIL

2. NIL

**PART - A**

- Q.1 What are rules of identifiers? [2]
- Q.2 What are the keywords? [2]
- Q.3 How is the type casting down in C++? [2]
- Q.4 What is inline function? [2]
- Q.5 Define constructor. [2]
- Q.6 What is the use of virtual base class? [2]

- Q.7 What is abstract class? [2]
- Q.8 What is pointer? How is it declared and initialized? [2]
- Q.9 What are the input and output streams? [1+1=2]
- Q.10 What is dynamic binding? [2]

### **PART – B**

- Q.1 How is cascading of I/O operators down? Explain with examples. [8]
- Q.2 Explain the basic data types used in C++. [8]
- Q.3 What is difference between character array and string? Explain. [8]
- Q.4 Explain virtual function with example. [8]
- Q.5 Write a function using reference variables as arguments to swap the values of a pair of integers. [8]
- Q.6 Explain friend function and its use with example. [8]
- Q.7 Explain exception handling in file system. [8]

### **PART – C**

- Q.1 Describe the basic concepts of object oriented programming in detail. Draw schematic diagram wherever required. [15]
- Q.2 What is function overloading? Demonstrate with a suitable program. [15]
- Q.3 Explain various types of constructors. [15]
- Q.4 Explain operator overloading with example. [15]
- Q.5 Explain different types of inheritance with block diagrams and examples. [15]