Roll No. .....

# 97675

## **BCA 4th Semester**

Examination - May, 2019

### OBJECT ORIENTED PROGRAMMING USING C++

Paper: BCA 208

Time: Three hours ]

Maximum Marks: 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note: Question No. 1 is compulsory. Attempt five questions in all by selecting at least one question from each Unit. All questions carry equal marks.

- 1. Explain the following:
  - (a) Data types in C++
  - (b) Flow control
  - (c) Iterators

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- (d) Object copying
- (e) Derived class and base class
- (f) Abstract class
- (g) Polymorphism
- (h) Namespace in C++

#### UNIT - I

- 2. What do you mean by Object Oriented Programming? Discuss the characteristics of Object Oriented of OOP in detail. Also differentiate between Procedural Language and Object oriented Approach in detail.
- **3.** What is C++ Programming language? Explain its syntax, variables and operators in detail.

## UNIT - II

- 4. (a) What are Constructors and Destructors in C++? What are the advantages of using constructors? Explain in detail.
  - (b) What do mean by classes? Explain Private and Public classes through suitable example.

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# 5. Explain the following in detail:

- (a) Member Function
- (b) Assignment Operator
- (c) Copy Constructer
- (d) Static Members

### UNIT - III

- **6.** (a) What do you mean by interitance? Explain the need of inheritance with example.
  - (b) Discuss the effect of inheritance on the visibility of members in public, private and protected derivation in detail.

## 7. Explain the following in detail:

- (a) Overriding member function
- (b) Abstract Class
- (c) Virtual function
- (d) Friend function

### UNIT - IV

**8.** (a) What are exceptions? How is an exception handled in C++? What is the need of exception handling? Explain in detail.

- (b) What do you mean by unexpected exceptions? How are they handled? Explain in detail.
- 9. What do you mean by templates and standard template library? Why are they needed? Explain the different types of templates in details through suitable example.

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