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## BCA. Examination 2018-2019

(Third Semester)

## OBJECT ORIENTED PROGRAMMING USING C++

Time: Three Hours] [Maximum Marks: 100

**Note:** Attempt all questions.

- 1. Attempt any four parts of the following:  $4 \times 5 = 20$ 
  - (a) Differentiate between procedural and object oriented programming.
  - (b) Describe objects and class with an example.
  - (c) What are the benefit of OOP methodology?
  - (d) Differentiate between token and keyword. Give few examples of token and keyword in C++.
  - (e) What is reference variable and what are its uses.

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- (f) Explain the following:
  - (i) Type cast operator
  - (ii) Manipulators
  - (iii) User defined data types.
- 2. Attempt any four parts of the following:  $4 \times 5 = 20$ 
  - (a) What is virtual base class? When do we make a class virtual?
  - (b) Write a program to overload a function area () to calculate area of square, rectangle and circle.
  - (c) Describe friend function? What are its uses?
  - (d) What is data hiding? How data hiding accomplish through a class?
  - (e) What is an inline function? What are its benefits.
  - (f) Describe local class with example.
- 3. Attempt any two parts of the following:  $2 \times 10 = 20$ 
  - (a) With an example differentiate between call be value and call by reference.

- (b) What is a constructor? Write a program to declare and define a constructor call, the constructor implicitly and explicitly and display the result.
- (c) What does inheritance mean in C++? Describe different forms of inheritance with example.
- 4. Attempt any two parts of the following:  $2 \times 10 = 20$ 
  - (a) What is operator overloading? Write a program to overload a binary oprator.
  - (b) Differentiate between formated I/O with un formated I/O with proper example.
  - (c) Describe following classes:
    - (i) Istream
    - (ii) Ostream and
    - (iii) IOStream.
- 5. Attempt any four parts of the following:  $4 \times 5 = 20$ 
  - (a) Write a C++ template function. Called Swap () that accept two agreement of generic type and interchange the contains.

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- (b) Describe throwing and catching machanism.
- (c) Write a program containing a possible exception. Use a try block to it throw it and a catch block to handle it properly.
- (d) What do you mean by standard tamplate library?
- (e) How many different type of error are encountered in a program.
- (f) Describe the use of scope-access operator (::) and reference operator (&).

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