

# CBCS SCHEME

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15EC562

## Fifth Semester B.E. Degree Examination, June/July 2018 Object Oriented Programming using C++

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain the structure of C++ program. Write a program to find average of two numbers and display the average value. (08 Marks)
- b. Mention applications of C++ programming language. (04 Marks)
- c. Differentiate between structures and unions. (04 Marks)

OR

- 2 a. Explain the memory management operators with an example. (06 Marks)
- b. What is switch statement? Write a program using switch statement to perform addition, subtraction, multiplication and division of operations. (06 Marks)
- c. Explain the working of "for" and "do-while" loop with syntax. (04 Marks)

### Module-2

- 3 a. Explain the call-by-value argument passing mechanism with an example. (06 Marks)
- b. What is function overloading? Write a program to find the sum of two numbers of type int, float and double. Overloaded function name is "add( )" that takes two parameters of types. (06 Marks)
- c. Write a program to find square of a number using inline function. (04 Marks)

OR

- 4 a. Why friend function is needed? Write a program to find mean value of two numbers using friend function. (06 Marks)
- b. Define class. Write the syntax for class declaration and member function declared outside the class. (04 Marks)
- c. Write a program to create class called book, containing two data items "title" and "price" and member functions are getdata and printdata respectively. Using this class, display the title of book and price and also write main program to declare object "b" and use member function of the class. (06 Marks)

### Module-3

- 5 a. Explain the parameterized constructor with an example. (06 Marks)
- b. Explain the copy constructor with an example. (06 Marks)
- c. List some of the special properties of the constructor function. (04 Marks)

OR

- 6 a. Explain the destructor function with an example. (06 Marks)  
b. Define operator overloading. Write a program to add two complex number by overloading '+' operator. (06 Marks)  
c. Write a program for overloading unary minus. (04 Marks)

**Module-4**

- 7 a. What is inheritance? Explain single inheritance with an example. (08 Marks)  
b. Explain multiple inheritance with an example. (08 Marks)

OR

- 8 a. Explain "this" pointer. Write a program to read two objects and their respective data items containing "name" and "age". Find the greatest age using "this" pointer. (08 Marks)  
b. What is virtual function? Mention the rules of virtual function. Write a program for virtual function. (08 Marks)

**Module-5**

- 9 a. Explain C++ stream classes used for I/O operations. (08 Marks)  
b. Explain the unformatted I/O operations with syntax. (08 Marks)

OR

- 10 a. Explain classes for file stream operations. (08 Marks)  
b. Explain ios format functions with syntax. (08 Marks)

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