



CBCS SCHEME

17EC562

Fifth Semester B.E. Degree Examination, Aug./Sept.2020 Object Oriented Programming using C++

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain features of C++. (06 Marks)
b. Explain and give the basic structure of C++ program. Also explain operation of client server model. (08 Marks)
c. With an explain, define (i) const (ii) enum (iii) union (06 Marks)

OR

- 2 a. Explain C++ data type hierarchy with example. (10 Marks)
b. Define C++ memory management operators with example. (04 Marks)
c. With example, explain:
(i) Scope resolution operator
(ii) Compound assignment operator
(iii) Type cast operator (06 Marks)

Module-2

- 3 a. Write a C++ program to demonstrate using call by reference for array of 'n' numbers to sort in descending order. (08 Marks)
b. Define function overloading, with programming example, explain overloaded functions. (06 Marks)
c. Specify the general syntax of class declaration, also explain significance and visibility of private, public access specifiers. (06 Marks)

OR

- 4 a. Define inline function with example. List the benefits and limitations of inline function. (08 Marks)
b. Define with example friend function, and advantage of use. (08 Marks)
c. Explain pointers to members and array of objects. (04 Marks)

Module-3

- 5 a. Define constructor. Explain with example how constructor function invoked. (04 Marks)
b. Define parameterized constructor. With example, explain multiple constructors. (08 Marks)
c. Explain with example: (i) destructor (ii) this (08 Marks)

OR

- 6 a. Give the general syntax of operator overloading function, list the operators cannot be overloaded. (04 Marks)
b. Explain with program to demonstrate binary '+' operator overloaded as a friend of a class. (08 Marks)
c. With programming example, justify prefix and postfix unary increment operator to be overloaded. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

Module-4

- 7 a. Define inheritance and importance of inheritance, also explain different forms of inheritance. (08 Marks)
b. Explain protected inheritance concept with example. (08 Marks)
c. Explain visibility of base class members with different derivation. (04 Marks)

OR

- 8 a. Explain with example multilevel and multiple inheritance. (08 Marks)
b. Explain virtual function, also explain importance of using virtual concept. (08 Marks)
c. Define pure virtual function. (04 Marks)

Module-5

- 9 a. Explain hierarchical structure of ios operation. (06 Marks)
b. Explain unformatted I/O operators. (06 Marks)
c. With example, explain (i) width (ii) fill (iii) precision (iv) setf (08 Marks)

OR

- 10 a. Write a C++ program to work on a single file for reading and writing the data. Data to be read from keyboard and store in a file. Same data to be displayed on a screen from the file. (06 Marks)
b. Explain file operations for following:
(i) open (ii) read (iii) close (iv) eof (08 Marks)
c. Explain error occurrence in a file operations. (06 Marks)
