

322415(22)

B. E. (Fourth Semester) Examination, 2020

(Old Scheme)

(CSE, IT Branch)

**OBJECT ORIENTED CONCEPTS &
PROGRAMMING USING C++**

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : All questions are compulsory. Part (a) from each question is compulsory and carries 2 marks. Any two parts out of (b), (c) and (d). Each part is of 7 marks.

Unit - I

1. (a) Explain any two user defined data type with example.

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- (b) State the main features of object oriented programming. Explain any three in brief. 7
- (c) What are the various operators available in C++? Describe the operators which were not available in C. 7
- (d) What do you mean by function? Explain call by value and call by reference using suitable example. 7

Unit - II

2. (a) Explain meaning of class and it's use. 2
- (b) Define static data member. Explain with suitable C++ code. 7
- (c) What is a friend function? What are the merits and demerits of using a friend function. 7
- (d) Write short note on : 7
- (i) Data Hiding
- (ii) Encapsulation

Unit - III

3. (a) What do you mean by polymorphism. 2

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- (b) What are constructors? Explain any three with example. 7
- (c) What do you mean by function overloading? Explain with example. 7
- (d) Why destructor is important? Explain with example. 7

Unit - IV

4. (a) What is pointer? 2
- (b) What are various type of inheritance? Explain Hybrid inheritance with help of example. 7
- (c) Explain virtual function with example. 7
- (d) Write short note on : $3\frac{1}{2} \times 2 = 7$
- (i) Pointer to object
- (ii) Abstract classes

Unit - V

5. (a) What are templates? 2
- (b) Explain the following file handling function with proper syntax for each : 7

- (i) read ()
 - (ii) eof
 - (iii) write ()
 - (iv) seek p ()
 - (v) tell p ()
 - (vi) seek g ()
 - (vii) tell g ()
- (c) What is binary file? List the merits and demerits of binary file using C++. 7
- (d) Explain the concept of exception in OOPs. 7