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58 (IT 401) OOPD

2019

OOPD

Paper : IT 401(Back)

Full Marks : 100

Time : Three hours

**The figures in the margin indicate full marks for the questions.**

Answer **any five** questions.

1. (a) Write a C++ program that reads a number and checks whether it is a three-digit number or not. 10
- (b) What is the use of keyword static in case of a variable and in case of a function ? Explain with examples. 10
2. (a) Write a C++ program to read five integers from command line and calculate the mean of the numbers. 10
- (b) What is a class ? How does it accomplish data hiding ? What is the need of a constructor ? 10

Contd.

3. (a) What is recursion ? Explain recursion with an example. 8
- (b) Can all functions of a class be private ? Explain with an example. 5
- (c) Discuss the role of inheritance in object-oriented programming. 7
4. (a) Justify the needs for using friend functions in operator overloading with an example. 10
- (b) What do you mean by dynamic binding ? How is it useful in OOP ? Explain with an example. 10
5. (a) Write a function template for finding the minimum value contained in an array. 10
- (b) What is a reference variable ? What is its major use ? Explain with proper examples. 10
6. Write a C++ program to sort an array of strings in alphabetical order. 20
7. Write short notes on : 20
  - (i) Class template



- (ii) Inline function
- (iii) Exception Handling
- (iv) Copy constructor.

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