

Total No. of Questions : 8]

SEAT No. :

**PA-1197**

[Total No. of Pages : 2

**[5925]-219**

**S.E. (Electronics/E & TC/Electronics & Computer)**

**OBJECT ORIENTED PROGRAMMING (2019**

**Pattern) (Semester - IV) (204194)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn whenever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Use of calculator is allowed.
- 5) Assume suitable data if necessary.

- Q1)** a) What are the rules for overloading operators? [4]
- b) Write down a C++ program to implement operator overloading for complex class. [8]
- c) Explain Friend function with example. [6]

OR

- Q2)** a) What is operator overloading? Write a program to overload Unary operator. [8]
- b) Write down a C++ program for copy constructor for string class. [6]
- c) Differentiate friend function with normal function of the class. [4]

- Q3)** a) Explain containment and Inheritance along with examples. [6]
- b) What is Virtual function? Explain how to achieved run time polymorphism. [6]
- c) Explain function over loading & function overriding in detail. [6]

OR

**P.T.O.**

- Q4)** a) What does inheritance mean in C++? Give an example of each. [6]  
b) What is polymorphism? Explain with example to achieved run time polymorphism. [6]  
c) Write copy constructor for Employee class, in which objects of string class and Date class are the Data members. [6]

- Q5)** a) What is a user defined exception? Write down the scenario where we require use define exceptions. [6]  
b) What is namespace? To demonstrate namespace with example. [6]  
c) Explain class template & function template with example. [5]

OR

- Q6)** a) What is stream? Explain types of streams available in C++. [6]  
b) Explain namespace in C++ with example? [6]  
c) Compare late binding & early binding. [5]

- Q7)** a) Explain error handling during file operations. [6]  
b) Write a program using put ( ) to write characters to a file until user enteres a dollar sign. [6]  
c) Write a note on file operating modes. [5]

OR

- Q8)** a) Explain manipulators for file handling in C++? [5]  
b) What is file pointer? Write a note on file opening & file closing. [6]  
c) Explain stream classes hierarchy for file handling in C++. [6]

