

**USCST06 - Computer Science Paper-II : Object Oriented Programming with C++**

P. Pages : 2

Time : Three Hours



**GUG/W/23/11603**

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw neat and labeled diagrams wherever necessary.  
3. Avoid vague answers and write answers relevant and specific to questions only.

**Either:**

1. a) Explain the setw manipulator for integer and real data with example. 5
- b) Write a program to print following output using for loop. 5
- ```
1
1 2
1 2 3
1 2 3 4
```

**OR**

- c) Describe overloading of function with suitable example. 5
- d) Explain the concept of default argument with example. 5

**Either:**

2. a) Discuss any two characteristics of object oriented programming. 5
- b) What do you mean by access specifier? Explain various access specifier with suitable example. 5

**OR**

- c) Explain advantages of OOP over procedure oriented programming. 5
- d) Write a C++ program to accept and display complex number. 5

**Either:**

3. a) Explain derived class with suitable example. 5
- b) Write a program to demonstrate copy constructor. 5

**OR**

- c) Distinguish between single inheritance and multiple inheritance. 5
- d) Write a program to demonstrate unary operator '++' overloading. 5

**Either:**

4. a) Explain pointer to object. Write a program to illustrate it. 5
- b) What is file pointer?  
Explain `getc( )` and `putc( )` function. 5

**OR**

- c) What are file modes? Describe various file mode option available. 5
- d) Explain virtual function with suitable example. 5
5. Attempt all the questions.
- a) Write a C++ program to compute  $a^b$  where a is real and b is integer.  $2\frac{1}{2}$
- b) Explain Static Data Member.  $2\frac{1}{2}$
- c) Explain parameterized constructor with suitable example.  $2\frac{1}{2}$
- d) Explain this pointer in short.  $2\frac{1}{2}$

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