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**SET-C**

**SRM INSTITUTE OF SCIENCE &TECHNOLOGY**

**RAMAPURAM CAMPUS,**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**CONTINUOUS LEARNING ASSESSMENT-2**

**18CSC202J– Object Oriented Design and Programming**

**Branch : B.Tech CSE & All Specializations**

**Year / Sem : II / III Max. Marks: 50**

**Duration : 90 Minutes Date of Exam:**

**Part-A (10\*1=10 Marks)**

**1**. **Which feature of OOP indicates code reusability?**  
a) Abstraction  
b) Polymorphism  
c) Encapsulation  
d) **Inheritance**

**2. Which is the correct syntax of inheritance?**  
a) class base\_classname :access derived\_classname

{ /\*define class body\*/ };  
b) **class derived\_classname : access base\_classname**

**{ /\*define class body\*/ };**  
c) class derived\_classname : base\_classname

{ /\*define class body\*/ };  
d) class base\_classname : derived\_classname

{ /\*define class body\*/ };

3. **Which of the following is not true about polymorphism?**  
a) Helps in redefining the same functionality  
b) **Increases overhead of function definition always**  
c) It is feature of OOP  
d) Ease in readability of program

4**.For constructor overloading, each constructor must differ in \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_**  
a) **Number of arguments and type of arguments**  
b) Number of arguments and return type  
c) Return type and type of arguments  
d) Return type and definition

**5. Operator overloading is also called …………….. polymorphism.**

a. run time

b. initial time

c. **Compile time**

d. Completion time

6**. Which of the following operator is overloaded for object cout?**

a. >>

**b. <<**

c. +

d. =

**7. A non-member function that is given access to all members of a class within it is declared, is called**

a. Access function

b**. Friend function**

c. Operator functions

d. Interface functions

8. **We can overload which of the following C++ operators**

a. **Arithmetic operator (+, -, \*, /)**

b. Class Member Access Operators (., .\*)

c. Size operator (sizeof)

d. Conditional operator (?:)

**9**. **What is a lifeline?**  
a. It is a frame consisting of a rectangle with a pentagon in its upper left-hand corner  
b. **It is a rectangle containing an identifier with a dashed line extending below the rectangle**  
c. It is a name compartment; the interaction is represented inside the rectangle  
d. Terminator compartment

**10. Which diagram is used to show interactions between messages are classified as?**

a. activity

b. state chart

c. **collaboration**

d. object lifeline

***Part – B* (4 X 4 = 16 Marks)**

***Answer any 4 Questions***

1. Describe function overloading
2. Illustrate overloading unary operators with an example
3. Define inheritance with syntax
4. What is statechart diagram? List its benefits
5. Define Hybrid Inheritance with example
6. Explain the notations of Statechart Diagram

***Part – C (2 X 12 = 24 marks)***

17 a Draw an UML Interaction diagram for online railway reservation system

(OR)

b. Write a C++ program illustrating Constructor overloading (Both parameterized and default).

18 a. Define Activity diagram. Draw the Activity diagram for Patient Registration System

(OR)

b. Explain advanced friend function and friend class with example

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*ALL THE BEST\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***