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**SET-A**

**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 inheritance type is used in the class given below?**

**class A : public X, public Y**

1. Multilevel inheritanc
2. **Multiple inheritance**
3. Hybrid inheritance
4. Hierarchical Inheritance
5. **Which of the following operators cannot be overloaded?**
6. []
7. ->
8. **?:**
9. \*
10. **Dynamic aspects related to a system are shown with help of**
11. sequence diagrams
12. **interaction diagrams**
13. deployment diagrams
14. use case diagrams

**4.** **Which class is used to design the base class?**a) **abstract class**  
b) derived class  
c) base class  
d) derived & base class

**5. \_\_\_\_\_\_\_\_\_\_\_diagram is time-oriented?**a. Collaboration  
b.**Sequence**  
c. Activity  
d.Statechart

**6. Which is also called as abstract class?**a) virtual function  
b) **pure virtual function**  
c) derived class  
d) base class

**7. Which is the correct syntax of defining a pure virtual function?**a) pure virtual return\_type func();  
b) virtual return\_type func() pure;  
c) **virtual return\_type func() = 0;**  
d) virtual return\_type func();

**8. Which is the correct statement about pure virtual functions?**a) They should be defined inside a base class  
b) Pure keyword should be used to declare a pure virtual function  
c) **Pure virtual function is implemented in derived classes**d) Pure virtual function cannot implemented in derived classes

**9. What is the syntax of friend function?**a) friend class1 Class2;  
b) friend class;  
c) friend class  
d) **friend class()**

**10. If same message is passed to objects of several different classes and all of those can respond in a different way, what is this feature called?**a) Inheritance  
b) Overloading  
c) **Polymorphism**  
d) Overriding

***Part – B* (4 X 4 = 16 Marks)**

***Answer any 4 Questions***

1. When do we need constructor overloading?
2. Specify the restrictions on Operator overloading
3. List out the modes of inheritance with an example
4. Write short notes on Virtual Function with an example
5. What is an Activity diagram? List its benefits
6. Define friend function with a suitable example

***Part – C (2 X 12 = 24 marks)***

17 a. Discuss interaction diagram and Illustrate interaction diagram for withdrawing amount from ATM machines

(OR)

b. i) Explain the types of constructors with suitable examples (6 marks)

ii) Write a C++ program for constructor overloading (6 marks)

18 a. Describe inheritance and its various types with example C++ Programs

(OR)

b. Elaborate statechart diagram online shopping system

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