STD: XI **NOVEMBER MONTHLY TEST** **Lessons: 14 to 18**
Marks: 50 / Time: 1.30 Hrs. **COMPUTER SCIENCE**
PART– I

I. Choose the correct answers. **10 X 1 = 10**

1. The member function defined within the class behave like _____ functions.
   a) inline b) Non inline c) Outline d) Data
2. class product
```
{
int code, quantity;
float price;
};
int main()
{
product p1, p2;
return 0;
}
```
   How many bytes will be allocated with memory space of object p1?
   a) 4 bytes b) 8 bytes c) 12 bytes d) 2 bytes
3. Which of the following constructor is executed for the following prototype ?
   add display(add &); // add is a class name
   a) Default constructor b) Parameterized constructor
   c) Copy constructor d) Non Parameterized constructor
4. Which of the following refers to a function having more than one distinct meaning?
   a) Function Overloading b) Member overloading
   c) Operator overloading d) Operations overloading
5. Which of the following is not true with respect to function overloading?
   a) The default arguments of overloaded functions are not considered for overloading
   b) The overloaded function must differ in their signature
   c) Destructor function cannot be overloaded
   d) The return type is also considered for overloading function
6. Which amongst the following is executed in the order of inheritance?
   a) Destructor b) Member function c) Constructor d) Object
7. Which of the following is used to refer to the current objects members?
   a) this pointer b) pointer c) constructor d) member function
8. Commercial programs made available to the public illegally are known as
   a) freeware b) warez c) free software d) software
9. Which of the following is not a malicious program on computer systems?
   a) worms b) Trojans c) spyware d) cookies
10. The first Tamil programming language is _____.
    a) Tamizh b) Ezhil c) Thamizpori d) Unicode

PART– II

II. Answer any five questions. Question No. 17 is compulsory: **5 X 2 = 10**

11. Write down the importance of destructor.
12. Write the General form of a class definition.
13. List the operators that cannot be overloaded.

14. Define UNICODE.
15. Why derived class is called power packed class?
16. What is harvesting? 17. Write down the syntax of operator overloading?

PART– III

III. Answer any five questions. Question No. 24 is compulsory: **5 X 3 = 15**

18. Differentiate structure and class though both are user defined data type.
19. Discuss the benefits of constructor overloading? 20. What do you mean by overriding?
21. What are the guidelines to be followed by any computer user?
22. Write a short note on Tamil Virtual Academy.
23. What are the rules for operator overloading?
24. Rewrite the following program after removing the syntax errors if any and underline the errors:

```
#include<iostream>
$include<stdio>
class mystud
{        int studid =1001;
          char name[20];
        public
          mystud( )   { }
          void register ( )
          {cin>>stdid; gets(name); }
 void display ( )
{cout<<studid<<": "<<name<<endl;}
 }
 int main( )
 { mystud MS;
    register.MS( );
    MS.display( );
 }
```

PART– IV

IV. Answer all the questions. **3 X 5 = 15**

25. a) Mention the differences between constructor and destructor. **(OR)**
    b) What is function overloading? Write the rules for function overloading.
26. a) Write the different types of cyber attacks. **(OR)**
    b) Write note on i) e-governance ii) e-library
27. a) Debug the given C++ program to get the following output:

Output:

```
Sum constructor:
Difference constructor:
1. Add:
2. Difference:
Enter your choice: 2
Enter the values for a and b: 20 60
The difference of two numbers are:-40
Difference Destructor:
Sum destructor:
?include<iostream>
using namespace std
class sum
{
```

```
int a,s;
protected:
int b;
publicly:
void sum( )
{
a= b= s=0;
cout<<"\n Sum Constructor :";
}
void input ( );
{
cout<<"\n Enter the values for a and b: ";
cin>>a>>b;
}
void addition ()
{
s = a + b;
cout<<"\n The sum of two numbers is :"<< s;
}
Void minus()
{
return a-b;
}
+sum()
{
cout<<"\nSum Destructor";
 }};
class difference#public sum
{
 int d1;
 public:
 difference()
 {
 d = 0;
 cout<<"\n Difference constructor :";
 }
 void sub()
 {
 input();
 d= minuses();
 cout<<"\n The difference of two numbers are :"<< d;
 }
 ~difference()
{
cout<<"\nDifference Destructor";
}
};
int main[]
 {
difference obj;
int ch = 0;
```

```
cout<<" \n1. Add:\n2.Difference:";
cout<<"\n\nEnter your choice ";
cin>>ch;
switch( ch );
{
 case '1':
 obj.input();
 obj.addition();
 break;
 case '2':
 obj.sub();
 break;
 }
 return 0;
 }
```

(OR)

b) Write the output of the following:

```
#include<iostream>
using namespace std;
class complex
{ int real,img;
  public:
void read()
{
 cout<<"\nEnter the REAL PART : ";
 cin>>real;
 cout<<"\nEnter the IMAGINARY PART : ";
 cin>>img;
}
complex operator +(complex c2)
{
  complex c3;
  c3.real=real+c2.real;
  c3.img=img+c2.img;
  return c3;
}
   void display()
{ cout<<real<<"+"<<img<<"i"; }
};
int main()
{
   complex c1,c2,c3;
   int choice, cont;
   cout<<"\n\nEnter the First Complex Number";
   c1.read();
   cout<<"\n\nEnter the Second Complex Number";
   c2.read();
   c3=c1+c2; // binary + overloaded
  cout<<"\n\nSUM = ";
  c3.display();
  return 0;
}
```