

## 8. Constructors and Destructors

### C++

1. When an instance of a class comes into scope, the function that executed is \_\_\_\_\_.  
a) Destructors b) Constructors c) Inline d) Friend
2. When a class object goes out of scope, the functions that gets executed is \_\_\_\_\_.  
a) Destructors b) Constructors c) Inline d) Friend
3. The name of constructor must be \_\_\_\_\_. a) same as one of the member function  
b) same as class name c) same as object name d) None of these
4. Which of the following is false? a) Constructor and destructor have same one  
b) Class and constructor have same name c) Class and destructor have same name.  
d) Constructor and member function have same name
5. Which of the following do not return any value? a) member function  
b) Inline function c) Friend function d) Constructor & destructor
6. Which of the following is automatically executed when an object is created?  
a) member function b) Inline function c) Friend function d) Constructor & destructor
7. Which one of the following initializes a class object and allocates memory space?  
a) a) Destructors b) Constructors c) Inline d) Friend
8. Which of the following is not true? a) Constructor cannot be overloaded  
b) Constructor is executed automatically c) Constructor can have parameter  
d) Destructor cannot be overloaded
9. Which is executed automatically when the control reaches the end of the class scope?  
a) Constructor b) Destructor c) Overloading d) Copy constructor
10. Which of the following prototype can be a copy constructor of class myclass?  
a) myclass(int myclass) b) int copy (myclass mc)  
c) myclass copy (myclass a) d) myclass(myclass &x)
11. A copy constructor is invoked when \_\_\_\_ a) a member function returns an object  
b) an object is passed as a parameter to any of the member function  
c) an object is passed by reference to constructor d) all the above.
12. Which of the following is not true?  
a) an object is passed as a parameter to any of the member function  
b) a member function returns as object  
c) an object is passed by reference to constructor d) all the above
13. Which of the following is true? a) A constructor can have parameter list

- b) The constructor is executed automatically  
c) The constructor function can be overloaded d) all the above
14. Which of the following is a function that removes the allocated memory of an object?  
a) Constructor b) Destructor c) Member function d) Copy constructor
15. A Destructor name must be \_\_\_\_\_. a) same as one of the member function  
b) same as class name prefixed by tilde(~)character c) same as object name  
d) None of these
16. Which of the following cannot have arguments?  
a) Constructor b) Destructor c) Function overloading d) operator overloading
17. How many constructor a class can have? a)1 b) 4 c) 6 d) Many
18. How many Destructor a class can have? a)1 b) 4 c) 6 d) Many
19. Constructor should be declared under the scope \_\_\_\_\_.  
a) Private b) Protected c) pointer d) Public.
20. When an object is passed by reference to constructor that is executed is \_\_\_\_\_.  
a) Copy b) Static c) Default d) Inline
21. The constructor defined by the computers in the absence of user defined constructor is \_\_\_\_\_. a) Copy b) Static c) Default d) inline
22. The special character related to destructor is \_\_\_\_\_. a) + b) ? c) ~ d) !
23. The constructors defined by the computers in the absence of user defined constructor Is called as \_\_\_\_\_. a) Non-parameterized b) default c) compiler generated d) all of
24. The constructor without any parameter is called as \_\_\_\_\_. a) Initial constructor  
b) instance constructor c) default constructor d) parameterized constructor

Read the following program and answer the following answer

```
#include<iostream.h>
#include<conio.h>
Class simple
{
float x;
public:
simple()
{
x=1.0;
}
Simple(float m)
```

```
{
x=m;
}
Simple(float a,float b)
{
x=a+b;
}
Simple(simple &k)
{
x = k*x;
cout<<"\n copy constructor invoked \n";
}
Void show()
{
cout<<"\n x=" <<x<<"\n";
}
};
```

25. Write prototype of non-parameterized constructor\_\_\_\_\_.

26. Write prototype of parameterized constructor\_\_\_\_\_.

```
Void main( )
{
Clrscr ( );
Simple s,s1;
S1.show( );
Simple s2 (7) , s3 (s1);
Simple s4 = s2,s5(4,5);
s = s5;
s2.show ( );
s3.show( );
s4.show( );
s5.show( );
s.show( );
getch( );
}
```

27. Write prototype of copy constructor \_\_\_\_.
28. Name the private members of the class \_\_\_\_.
29. Identify statements that invoke copy constructor \_\_\_\_.

Read the following program and answer the following answer

```
#include<iostream.h>
#include<conio.h>
Class example
{
Int x,y;
Public:
example (example &a)
{
x = a.x;
y = a.y;
cout<<"copy constructor....";
}
example( )
{
x = 1;
y = 1;
}
example(int a,int b)
{
x = a;
y = b;
}
Void display( )
{
cout<<"\nx="<<x<<"and y"<<y;
}
};
void main( )
{
Clrscr( ) ;
```

```
example e1;  
example e2(2,4);  
example e3 = e2;  
e1.display();  
e2.display();  
e3.display();  
getch( );  
}
```

30. Write prototype of non parameterized constructor\_\_\_\_\_.
31. Write prototype of parameterized constructor\_\_\_\_\_.
32. Write prototype of copy constructor\_\_\_\_\_.
33. Name private members of the class \_\_\_\_\_.
34. Name Public members of the class \_\_\_\_\_.
35. Identify statements that invoke copy constructor\_\_\_\_\_.

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