Question 1 [5 Marks]

If a function is a friend of a class, which one of the following is wrong?



A function can only be declared a friend by a class itself.



Friend functions are not members of a class, they are associated with it.



Friend functions are members of a class.



It can have access to all members of the class, even private ones.

Explanation

A friend of the class can be a member of some other class but Friend functions are not the members of a particular class.

Question 2 [5 Marks]

Which of the following is/are automatically added to every class, if we do not write our own.





Copy Constructor



Assignment Operator



A constructor without any parameter



All of the above

Your submitted response was correct.

Question 3 [5 Marks]

```
Please choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Point
{
    Point() {
        cout << "Constructor called\n";
    }
};

int main()</pre>
```



Runtime Error



Constructor Called



Compilation Error

Question 4 [5 Marks]

```
Please choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Point
{
    public:
        Point() { cout << "Normal Constructor called\n"; }
        Point(const Point &t) { cout << "Copy constructor called\n"; }
};

int main()</pre>
```

Normal Constructor called
Normal Constructor called
Normal Constructor called
Copy Constructor called
Copy Constructor called
Normal Constructor called
Copy Constructor called

Normal Constructor called
Copy Constructor called
Copy Constructor called
Normal Constructor called
Copy Constructor called

Normal Constructor called Copy Constructor called Copy Constructor called Normal Constructor called

Question 5 [5 Marks]

A

Constructor called



Empty



Compilation Error



Runtime Error

Question 6 [5 Marks]

Which of the following is true about constructors?

- 1. They cannot be virtual.
- 2. They cannot be private.
- 3. They are automatically called by new operator.



All of the statements



1 and 3



1 and 2



2 and 3

Question 7 [5 Marks]

Which of the following functions must use reference.





Assignment operator function



Copy constructor



Destructor



Parameterized Constructor

Question 8 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

int &fun()
{
    static int x = 10;
    return x;
}

int main()
{
```



10



Compilation Error



30



A value equal to address of x

Question 9 [5 Marks]

```
choose the correct output amongst the ones given below:

#include <bits/stdc++.h>
using namespace std;

class Test
{
    static int x;
    int *ptr;
    int y;
};

int main()
```



12 4



12 12



8 4



88

Question 10 [5 Marks]

Which of the following is **NOT** correct for virtual function in C++?



Must be declared in the public section of the class.



Virtual functions can be static.



Virtual functions should be accessed using pointers.



Virtual functions are defined in the base class.

Question 11 [5 Marks]

Choose the correct output from the options given below:



0



3



10



None of the Above

Question 12 [5 Marks]

```
Choose the correct output from the options given below:
#include <bits/stdc++.h>
using namespace std;
class A
 {
    int id;
     static int count;
       public:
            A() {
                 count++;
                id = count;
```



constructor for id 1 constructor for id 2 constructor for id 3

destructor for id 3 destructor for id 2 destructor for id 1



constructor for id 1 constructor for id 2 constructor for id 3destructor for id 1

Question 13 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;
class Test
{
   int x;
       public:
               void* operator new(size_t size);
               void operator delete(void*);
       Test(int i) {
              x = i;
```



new called Constructor called delete called Destructor called



new called Constructor called Destructor called delete called



Constructor called new called

Question 14 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Test
{
    private:
        int x;
    public:
        Test(int x = 0) { this->x = x; }
        void change(Test *t) { this = t; }
        void print() { cout << "x = " << x << endl; }
</pre>
```



x – 5



x = 10



Runtime Error



Compilation Error

Question 15 [5 Marks]

Which of the following is true about ${\it this}$ pointer?



It is passed as a hidden argument to all function calls.



It is passed as a hidden argument to all non-static function calls.



It is passed as a hidden argument to all static functions.



None of the above

Question 16 [5 Marks]

What is the use of this pointer? When a local variable's name is the same as a member's name, we can access the member using this pointer.



To return a reference to the calling object.



It can be used for chained function calls on an object.



All of the above

Your submitted response was correct.

Question 17 [5 Marks]

Choose the correct output from the options given below: #include <bits/stdc++.h> using namespace std; int fun(int x = 0, int y = 0, int z) return (x + y + z); int main() cout << fun(10);



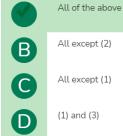






Compilation Error

Question 18 [5 Marks]

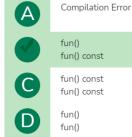


Question 19 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Test
{
    protected:
        int x;
    public:
        Test(int i) : x(i) {}
        void fun() const { cout << "fun() const " << endl; }
    void fun() { cout << "fun() " << endl; }
</pre>
```



Question 20 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Test
{
    private:
        static int count;
    public:
        Test& fun();
};
```

A

Compilation Error



4444



1111



1234

Question 21 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class A
{
    protected:
        int x;
    public:
        A() : x(0) {}
        friend void show();
};
```



Compilation Error in show() because x is protected in class A.



Compilation Error in show() because y is private in class b



The default value of A::x = 0The default value of B::y = 0



None of the Above

Question 22 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Base1
{
    public:
        Base1() { cout << " Base1's constructor called" << endl; }
};

class Base2
{
```



Compiler Dependent



Base1's constructor called Base2's constructor called Derived's constructor called



Base2's constructor called Base1's constructor called Derived's constructor called



Compilation Error

Question 23 [5 Marks]

Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Base
{
 public:
 void show() { cout<<" In Base "; }
};

class Derived: public Base</pre>



{

Compilation Error at line bp->show().



Compilation Error at line cout << bp->x.



In Base 10



In Derived 10

Question 24 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Base
{
    public:
        virtual string print() const {
            return "This is Base class";
        }
};
```

A

This is Derived class

This is Base class



This is Base class This is Derived class



This is Base class This is Base class



This is Derived class This is Derived class

Question 25 [5 Marks]

Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Base
{
 public:
 int x, y;
 public:
 Base(int i, int j) { x = i; y = j; }
};



10 10



0 0



Compilation Error



Runtime Error

Question 26 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Base
{
    protected:
        int a;
    public:
        Base() : a(0) {}
};
```



Compilation Error at line: cout << a;



0



Run-time Error



Compilation Error at line: class Derived3: public Derived1, public Derived2

Question 27 [5 Marks]

In C++, const qualifier can be applied to:

- 1. Member functions of a class
- 2. Function arguments
- 3. A class data member which is declared as static
- 4. Reference variables



1, 2 and 3



1, 2 and 4



All



1, 3 and 4

Question 28 [5 Marks]

```
choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Point
{
    int x, y;
    public:
        Point(int i=0, int j=0) x(i), y(j) : {}
        int getX() const { return x; }
        int getY() { return y; }
};
```



Garbage Values



0 0



Compiler Error at line: cout << t.getX() << " ";



Compiler Error at line: cout << t.gety();

Question 29 [5 Marks]

```
Choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

int main()
{
    const char* p = "12345";
    const char **q = &p;
    *q = "abcde";
    const char *s = ++p;
    p = "XYZWVU";
    cout << *++s;
```



Compilation Error



С



b



Garbage Value

Question 30 [5 Marks]

```
choose the correct output from the options given below:

#include <bits/stdc++.h>
using namespace std;

class Base
{
    public:
        virtual void show() { cout<<" In Base\n"; }
};

class Derived: public Base
{</pre>
```



In Base In Base



In Base In Derived



In Derived In Derived



In Derived In Base