1.

```
#include<iostream>
using namespace std;
class base
{
	int baseProperty;
	public:
	void protectme()
	{
		cout <<baseProperty;
	}
};
class derived:protected base
{
	int derivedProperty;
};
int main()
{
	base b;
	derived d;
	b.protectme(); //1
	d.protectme(); //2
	return 0;
}
```

A. line 1 function call executed successfully

B. line 2 function call executed successfully

C. line 1, line 2 functions calls executed successfully

D. line 1, line 2 functions calls not executed successfully

Answers: A

2. What is output of following program?

```
#include <iostream>
using namespace std;
namespace na
{
	int num1 = 10;
}
int main( void )
{
	int num1 = 20; using namespace na;
	cout<<"Num1 ="<<num1;
	cout<<"Num1 ="<<na::num1<<endl;
	return 0;
}
```

A. Num1 =20 Num1 =10

B. Num1 =10 Num1 =20

C. Num1 =20 Num1 =20

D. Compile time error

Answer: A

3.

How to create dynamic array of pointers (to integer) of size 10 using new ?

A. int *arr = new int*[10]

B. int **arr = new int*[10]

C. int *arr = new int[10]

D. not possible

Answer: B

4.

What is output of this program?

```
#include <iostream>
using namespace std;
class date
{
    int day,month,year;
    date()
    {
        day=25;
        month=4;
        year=2020;
    }
    public:
    void printDate()
    {
       cout<<day<<"-"<<month<<"-"<<year<<endl;
    }
};
int main()
{
    date today;
    today.printDate();
    return 0;
}
```

A. Garbage value

B. 25-4-2020

C. Runtime error

D. Compile time Error

Answer: D

5.

What is output of this program?

```
#include <iostream>
using namespace std;

void fun(int=10,int=20,int=30);
void fun(int, int);

int main()
{
    fun(1,2);
    return 0;
}
void fun(int x,int y,int z)
{
    cout<<endl<<x<<endl<<y<<endl<<z;
}
void fun(int x,int y)
{
    cout<<endl<<x<<endl<<y;
}
```

A. 1 2

B. Compile time error

C. 1 2 30

D. none of the above

Answer: B

6.

What is output of following code?

```
#include<iostream>
using namespace std;
int main()
{
    int &p , i=5;
    cout<<"i :"<<i<<endl;
    &p=a;   p++;
    cout<<"i :"<<i<<endl;
    return 0;
}
```

A. 5 5

B. 5 6

C. compile time error

D. 5 6

Answer: C

7.

what is meaning of following statement?

```
#include<iostream>
using namespace std;
int main()
{
    int &a=5;
    cout<<a<<endl;
    return 0;
}
```

A. 5

B. segmentation fault

C. Runtime error

D. compile time error

Answer: D

8.

What is value of arr[3],if we enter 10,25,45,14,8,3 successively?

```
#include<iostream>

using namespace std;
int main( void )
{
	int * arr = new int[ 6 ];
	for( int i = 0; i < 6; ++ i )
	{
		cout<<"Enter element : ";
		cin>>arr[ i ];
	}
	for( int i = 0; i < 6; ++ i)
		cout<<arr[ i ];
	delete[] arr;
	arr = NULL;
	return 0;
}
```

A. 45

B. 14

C. 25

D. 10

Answer: B

9.

What will be the output of the following C++ code?

```
#include<iostream>
using namespace std;
int main( void )
{
    int num1 = 10;
    int num2 = 20;
    int &num3 = num1;
    num3 = num2;
    ++num2;
    cout<<"Num1 : "<<num1<<endl;
    cout<<"Num2 : "<<num2<<endl;
    cout<<"Num3 : "<<num3<<endl;
    return 0;
}
```

A. Num1 : 10 Num2 : 21 Num3 : 10

B. Compile time Error

C. Num1 : 20 Num2 : 21 Num3 : 20

D. Num1 : 10 Num2 : 21 Num3 : 20

Answer: C

10.

What will be the output of the following C++ code?

```
#include<iostream>
using namespace std;
int main(void)
{
    int &num;
    int a=5;
    &num=a;
    cout<<num;
    return 0;
}
```

A. 5

B. Segmentation fault

C. Runtime error

D. Compile time error

Answer: C

11.

What will be the output of the following C++ code?

```
#include<iostream>
using namespace std;
int main()
{
    int arr[2] = { 10, 20, 30, 40, 50 };
    cout<<arr[1]<<endl;
    return 0;
}
```

A. Compile time error

B. program will compile successfully but give one warning

C. 20

D. Both B and C

Answer: A

12.

What will be the output of the following C++ code?

```
#include<iostream>
using namespace std;
class Point
{
    public:
    Point() {
        cout << "Normal Constructor called"<<endl;
    }
    Point(const Point &t){
        cout << "Copy constructor called"<<endl;
    }
};
int main()
{
    Point *t1, *t2;
    t1 = new Point();
    t2 = new Point(*t1);
    Point t3 = *t1;
    Point t4;
    t4 = t3;
    return 0;
}
```

A. Normal Constructor called Copy Constructor called
Copy Constructor called Normal Constructor called

B. Normal Constructor called Normal Constructor called
Normal Constructor called Copy Constructor called
Copy Constructor called Normal Constructor called
Copy Constructor called

C. Normal Constructor called Copy Constructor called
Copy Constructor called Normal Constructor called
Copy Constructor called

D. None of the above

Answer: A

13.

What will be the output of the following C++ code?

```
#include<iostream>
using namespace std;
class Point
{    int x;
     public:
          Point(int x) {
               this->x = x;
          }
          Point(const Point p) {
               x = p.x;
          }
          int getX() {
               return x;
          }
};
```

```
int main()
{
	Point p1(10);
	Point p2 = p1;
	cout << p2.getX();
	return 0;
}
```

A. Compiler Error: p must be passed by reference

B. Garbage value

C. 10

D. None of the above

Answer: A

14. What will be the output of the following program?

```
#include <iostream>

using namespace std;
class Program{
	int id;
	static int count;
	public:
		Program()
		{
			count++;
			id = count;
			cout << "constructor for id " << id << endl;
		}
		~Program() {
			cout << "destructor for id " << id << endl;
		}
};
int Program::count = 0; //Global Definition
```

```
int main()
{
	Program a[3];
	return 0;
}
```

A. constructor for id 1 constructor for id 2 constructor for id 3
destructor for id 3 destructor for id 2 destructor for id 1

B. constructor for id 1 constructor for id 2 constructor for id 3
destructor for id 1 destructor for id 2 destructor for id 3

C. Compiler Dependent

D. constructor for id 1

Answer: A

15.

What will be the output of the following program?

```
#include <iostream>

using namespace std;
class Program{
	static int x;
	public:
		static void Set(int xx)
		{
			x = xx;
		}
		void Display()
		{
			cout<< x ;
		}
};  int Program::x = 0;
```

```
int main()
{
	Program::Set(33);
	Program::Display();
	return 0;
}
```

A. The program will print the output 0.

B. The program will print the output 33.

C. The program will print the output Garbage.

D. The program will report compile time error.

Answer: D

16.

What is the output of following code

```
##include<iostream>
using namespace std;
void print( int x )
{
	cout<<"int : "<<x<<endl;
}
void print( int &x )
{
	cout<<"int& : "<<x<<endl;
}
int main( void )
{
	print( 10 );
	return 0;
}
```

A. int : 10

B. int& : 10

C. Ambiguity error

D. Redefinition error

Answer: A

17.

Which Feature of OOP illustrated the code reusability?

A. Polymorphism

B. Abstraction

C. Encapsulation

D. Inheritance

Answer: D

18.

Which feature can be implemented using encapsulation?

A. Inheritance

B. Abstraction

C. Polymorphism

D. Overloading

Answer: B

19.

Which one of the following do not represent compile time polymorphism?

A. Function Overloading

B. Operator Overloading

C. Function Overriding

D. Template

Answer: C

20.

_____ operator is designed to use with cin.

A. <

B. <<

C. >>

D. >

Answer: C

21.

Select the correct statement about class.

A. State, bahavior and identity are charactericts of class.

B. Class represents structure and behavior of the object.

C. Class get space inside memory.

D. By default, access specifier of the class is public.

Answer: B

22.

Which of the following function get this pointer

A. Global function

B. Static member function

C. Constant member function

D. Friend function

Answer: C

23.

_____ is called when an already created object is assigned to another already created object.

A. Copy Constructor

B. Default Constructor

C. Assignment operator

D. parameterless Constructor

Answer: C

24.

By default how the value are passed in c++?

A. call by value

B. call by reference

C. call by pointer

D. call by object

Answer: A

25.

What is the output of following code

```
#include<iostream>
using namespace std;
void SWAP(int &n1, int n2)
{
    n1=n1*n2;
    n2=n1/n2;
    n1=n1/n2;
}
int main()
{
    int no1=-1, no2=-2;
    cout<<" no1="<<no1<<" no2="<<no2<<endl;
    SWAP(no1, no2);
    cout<<" no1="<<no1<<" no2="<<no2<<endl;
    return 0;
}
```

A. no1=-1 no2=-2 no1=-2 no2=-2

B. no1=-1 no2=-2 no1=-2 no2=-1

C. no1=-1 no2=-2 no1=-1 no2=-2

D. no1=-1 no2=-2 no1=-1 no2=-1

Answer: A

26. What will be the output of the following C++ code?

```
#include <iostream>
using namespace std;
int add(int n1 = 32, int n2)
{
    int sum;
    sum = n1 + n2;
    return sum;
}
int main()
{
    cout << add(23);
    return 0;
}
```

A. 55

B. 32

C. 23

D. compile time error

Answer: D

27.

What is the calling sequence of a destructor compared to a constructor?

A. Destructors are called before constructors.

B. Constructors are called before destructors.

C. Destructors and constructors are called in the same sequence.

D. The calling sequence of destructors and constructors is unpredictable.

Answer: B

28.

Virtual functions are used to achieve

A. Overloading

B. Overriding

C. early binding

D. Static binding

Answer: B

29.

```
#include<iostream>
int main()
{
	int x=10,y=0;
	try
	{
		int res=x/y;
		std::cout<<"res::"<<res<<std::endl;
	}
	catch(int)
	{
		std::cout<<"Enter Other Than 0"<<std::endl;
	}
	catch(...)
	{
	std::cout<<"can not divide by zero"<<std::endl;
	}
	return 0;
}
```

A. program abnormally terminated(run time error).

B. Enter Other Than 0

C. can not divide by zero

D. it continues with the code below the catch block.

Answer: A

30.

Class which contains at least one pure virtual function such type of class is called as called _____

A. abstract class

B. concreate class

C. both A and B

D. none of above

Answer: A