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

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

int main()
{
   Point p1;
   Point p2 = p1;
   cout << "x = " << p2.getX() << " y = " << p2.getY();
   return 0;
}
```

Answers

1. x = garbage value y = garbage value
2. x = 0 y = 0
3. **Compiler Error**
4. None of the above

2. 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;
}
```

Answers

1. Compiler Error: p must be passed by reference
2. Garbage value
3. 10
4. None of the above

3. number of constructors in cpp.

Answers

1. 4
2. 2
3. 3
4. 5

4. correct syntax of copy constructor ?

Answers

1. class_name (const class_name& other)
2. class_name (const class_name* other)
3. class_name (const class_name other)
4. return_type class_name (const class_name& other)

5. Which of the following scenarios where deep copy is generally required?

Answers

1. If an object has pointers to dynamically allocated memory.
2. If dynamically allocated memory needs to be copied when the original object is copied
3. Only 1 is correct
4. Both A and B are correct

6. _______ assigns the value of one object to another object both of which are already exists.

Answers

1. constructor
2. Copy constructor
3. Assignment Operator
4. None of Above

7. The assignment operator can be used to assign an object to another object of same type, this assignment by default performed by

Answers

1. Functions
2. Constructors
3. Memberwise copy
4. Bitwise copy

8. when we assign an already created object to the already created object, the compiler internally calls _____________.

Answers

1. copy constructor
2. default constructor
3. assignment operator function
4. parameterized constructor

9.
```
#include <iostream>
using namespace std;
namespace NArray
{
		class Array
		{
				private:
						int size;
						int *arr;
				public:
						Array(int size=5)
						{
								this->size=size;
								this->arr= new int[this->size];
								for(int index=0; index<this->size; index++)
								{
										this->arr[index]=0;
								}
						}
						Array(const Array& other)
						{
								this->size= other.size;
								this->arr=new int[this->size];
								for(int index=0; index<this->size; index++)
								{
										this->arr[index]=other.arr[index];
								}
						}

						void PrintOutputOnConsole()
						{
								int index;
								for(index=0; index<this->size; index++)
								{
										cout<<"this->arr["<<index<<" ] "<< this-
>arr[index]<<"\t["<< &this->arr[index] <<"]"<<endl;
								}
						}
						~Array()
						{
								if(this->arr!=NULL)
								{
										delete [] this->arr;
										this->arr=NULL;
								}
						}
		};
}
using namespace NArray;
int main()
```

```
{
        Array a1;
        cout<<"a1 :: "<<endl;
        a1.PrintOutputOnConsole();

        Array a2=a1;   // line no 73
        cout<<"a2 :: "<<endl;
        a2.PrintOutputOnConsole();

        Array a3(a1); // line no 77
        cout<<"a3 :: "<<endl;
        a3.PrintOutputOnConsole();
        return 0;
}
```

_______ is called on line no 73 and _______ is called on line no 77.

Answers

1. copy constructor , assignment operator function
2. assignment operator function, copy constructor
3. **copy constructor , copy constructor**
4. assignment operator function , assignment operator function

10. By default the compiler creates a _______ copy. Default copy constructor always creates a ______ copy.

Answers

1. shallow, shallow

2. deep, shallow

3. default, deep

4. shallow, deep