

12. THIS AND SUPER KEYWORD

1.

```
class Main
{
    int a;
    int b;
    Main(int a, int b)
    {
        this.a = a;
        this.b = b;
    }

    void display()
    {
        System.out.println("a = " + a + " b = " + b);
    }

    public static void main(String[] args)
    {
        Main object = new Main(10, 20);
        object.display();
    }
}
```

Output-

a = 10 b = 20

2.

```
class A
{
    void method1()
    {
        System.out.println("method1...");
    }
}
class B extends A
{
    void method1()
    {
        System.out.println("method1...");
    }
    void method2()
    {
        System.out.println("method2...");
    }
    void method3()
    {
```

```

        super.method1();
        method2();
    }
}
class Main
{
    public static void main(String args[])
    {
        B b=new B();
        b.method3();
    }
}

```

Output-
method1...
method2...

3.

```

class Main
{
    int a;
    int b;
    Main()
    {
        this(10, 20);
        System.out.println("Inside default constructor \n");
    }
    Main(int a, int b)
    {
        this.a = a;
        this.b = b;
        System.out.println("Inside parameterized constructor");
    }
    public static void main(String[] args)
    {
        Main object = new Main();
    }
}

```

Output-
Inside parameterized constructor
Inside default constructor

4.

```

class A
{
    B obj;
    A(B obj)

```

```

        {
            this.obj = obj;
            obj.display();
        }
    }

class B
{
    int x = 5;
    B()
    {
        A obj = new A(this);
    }
    void display()
    {
        System.out.println("Value of x in Class B : " + x);
    }

    public static void main(String[] args) {
        B obj = new B();
    }
}

```

Output-
Value of x in Class B : 5

5.

```

class Parentclass
{
    Parentclass(){
        System.out.println("Constructor of parent class");
    }
}
class Subclass extends Parentclass
{
    Subclass(){
        System.out.println("Constructor of child class");
    }
    Subclass(int num){
        System.out.println("arg constructor of child class");
    }
    void display(){
        System.out.println("Hello!");
    }
    public static void main(String args[]){
        Subclass obj= new Subclass();
    }
}

```

```

        obj.display();
        Subclass obj2= new Subclass(10);
        obj2.display();
    }
}

```

Output-

Constructor of parent class

Constructor of child class

Hello!

Constructor of parent class

arg constructor of child class

Hello!

6.

class Main

```

{
    int a;
    int b;
    Main()
    {
        a = 10;
        b = 20;
    }
    void display(Main obj)
    {
        System.out.println("a = " + a + " b = " + b);
    }
    void get()
    {
        display(this);
    }
    public static void main(String[] args)
    {
        Main object = new Main();
        object.get();
    }
}

```

Output-

a = 10 b = 20