Constructor

1. What is constructor? Write with example.

   Ans. A constructor is a member function of a class with the same name as that of its class. It is automatically invoked when the object of the class is created.Example :

```
class Date
{
        private int d,m,y;
        Date()
        {
          d=26;
          m=4;
         y=2015;
        }
        void display()
        {
                System.out.println("Today is : "+d+"/"+m+"/"+y);
        }
        void main()
        {
                Date obj=new Date(); obj.display();
        }
}
```

2. Define default constructor.

   Ans. Default constructor is a constructor that does not take any argument or parameter. If there is no constructor written in the program then java compiler automatically supplies a default constructor

3. Differentiate between constructor and function

Constructor	Function
a) It has the same name as the class name.	a) Class name and function must be different
b) It has no return type, not even void.	b) Must have a return type.
c) Used to initialize instance variables.	c) Used to perform specific task.
d) It is invoked automatically when object is created.	d) It is invoked when object calls the method using dot operator.

4. Define parameterized constructor.
   Ans: Constructor that have arguments or parameters is called parameterized constructor.

5. Can a constructor be private? Explain.

   Ans. We can define a constructor as private, but this constructor will not be available to non-member function i.e. we cannot create object of the class in non-member function. Therefore a constructor should be defined as public, so that object of the class can be created in any function.

6. What is a destructor?
   Ans: It is a function which is invoked automatically by the compiler to destroy objects to free memory space.

7. Write any 3 characteristics of constructor.
   Ans:
   - ❖ It has the same name as the class name.
   - ❖ It has no return type, so it cannot return any value.
   - ❖ It is invoked automatically when an object of the class is created.

8. What is copy constructor?
   Ans: when we create a new object with the same state as that of another object, a copy constructor is generated. It takes argument as object.

9. Explain constructor overloading with example.
   Ans: when 2 or more constructor functions are defined in a class, it is known as constructor overloading. Example:

```
class number
{
        int x, y;
        int num;
        public number()
        {
                x=10;
```

```
        y=20;
    }
    public number(int a)
    {
        x=a;
        y=20;
    }
    public number(int m, int n)
    {
        x=m;
        y=n;
    }
    void display()
    {
        sum=x+y;
        System.out.println(sum);
    }
    void main()
    {
        number ob1=new number();
        number ob2=new number(15);
        number ob3=new number(5,7);
        ob1.display();          // output :  30
        ob2.display();          // output:   35
        ob3.diaplay();          // output:   12
    }
}
```

10. What is the use of 'this' keyword?

    Ans: This keyword is used to access the values of current object. In other word it can be used to access values of global variable. Example:

```
class abc
{
    int x, y;
    abc(int x, int y)
    {
        this.x=x;
        this.y=y;
    }
}
```