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Sub - Programming with java , B.Sc. ITnd Sem. CT1

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## Section - B

### Answer No. 2

while : The while is an entry controlled statement the test condition is true, then the body of loop is executed. After execution of body the test condition is once again evaluated. and if it is true body is executed again. this process continue till the test condition finally become false.

Syntax : Initialization:

```
while (test condition)
{
    body of loop
}
```

The example will be executed 10 times.

example:

```
class Do
{
    public static void
    main (String s[])
    {
        sum = 0;
        n = 1;
        while (n <= 10)
        {
            sum = sum + n * n;
            n = n + 1;
        }
        System.out.println ("sum = " + sum);
    }
}
```

Do while : on reaching the do statement program proceed to evaluate the body of loop at first. At the end of loop the test condition in while is evaluated. if the condition is true, the program continues to evaluate body once again. this is an exit controlled loop. therefore body of loop is executed atleast once.

Syntax : Initialization;

```
do
{
    body of loop
} while (test condition);
```

example,

```

i = 1;
sum = 0
do
{
    sum = sum + 1;
    i = i + 2;
}
while (sum < 40 || i < 10);

```

this loop is executed as long as one of the two relations is true

### Answer No - 3

Method overriding - if subclass has the same method as declared in parent class it is known as overriding in java.

This is used for runtime polymorphism. and also provide specific implementation of method which is already provided by its super class.

example: class Vehicle {

```

void run() { System.out.println("Vehicle is
running"); }

```

class Bike2 extends Vehicle {

```

void run() { System.out.println("Bike is
running safely");}

```

public static void main (String s[]) {

Bike2 obj = new Bike2();

obj.run();

}

}

Output: Bike is running safely

### Answers No. 4

This keyword:-

1. this is a reserved keyword in java, i.e. we can't use it as an identifier.
2. this is used to refer current class instance as well as static members.
3. this can be used to refer instance variable of current class.
4. this can be used to invoke or initiate current class constructor.
5. this can be passed in both constructor and method as argument.

Super keyword:

1. this is also a reserved keyword in java, and can't be used as identifier.
2. Super is used to refer superclass's instance as well as static members.
3. Super is also used to invoke super class's method or constructor.

example: class Parent {

```

        int a=10;
        static int b=20;
    }

    class Base extends Parent {
        void rr() {
        }
        {
            System.out.println(super.a);
            System.out.println(super.b);
        }
        public static void main (String s[])
    }

```

```
{  
    new Base()~r();  
}
```

output: 10  
20

example of super keyword ↗

### Section A

#### Ans - 1

(A) (d) III and IV

(B) (d) only III

(C) (b) this keyword is used to access the overidden member of superclass into subclass.