LOOPS

1. Break Statement

```java
import java.util.Scanner;
public class break2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        do {
            System.out.print("Enter Number: ");
            int n = sc.nextInt();
            if (n % 10 == 0) {
                break;
            }
            System.out.println(n);
        } while (true);
        System.out.println("EXIT! Number is multiple of 10.");
    }
}
```

2. Break Statement

```java
public class breakstatement {
    public static void main(String[] args) {
        for (int i=1; i <= 5; i++) {
            if (i == 3) {
                break;
            }
            System.out.println(i);
        }
        System.out.println("I'm out of the loop.");
    }
}
```

3. Continue Statement

```java
public class Continue {
    public static void main(String[] args) {
        //CONTINUE Statement
        for (int i = 0; i <= 5; i++) {
            if (i == 3) {
                continue;
            }
            System.out.println(i);
        }
    }
}
```

4. Do-while Loop

```java
public class dowhile {
    public static void main(String[] args) {
        int i = 1;
        do {
            System.out.println("Hello World");
            i++;
        } while (i <= 10);
    }
}
```

5. Continue Statement

```java
import java.util.Scanner;
public class Continue2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);

        do {
            System.out.print("Enter Number: ");
            int n = sc.nextInt();

            if (n % 10 == 0) {
                continue;
            }

            System.out.println("Number was: " + n);

        } while (true);
    }
}
```

6. Error

```java
public class error {
    public static void main(String[] args) {
        int i;
        for (i = 0; i <= 5; i++) {
            System.out.println("i = " + i);
        }
        System.out.println("After the loop i = " + i);
    }
}
```

7. Factorial

```java
import java.util.Scanner;
public class factorial {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        int num;
        int factorial = 1;
        System.out.print("Enter the Number: ");
        num = sc.nextInt();
        for (int i = 1; i <= num; i++) {
            factorial *= i;
        }
        System.out.println("Factorial: " + factorial);
    }
}
```

8. For Loop

```java
public class forloop {
    public static void main(String[] args) {
        // int i = 1
        for(int i=1; i<=10; i++) {
            System.out.println("Hello World");
        }
    }
}
```

9. Prime or Composite Number

```java
import java.util.Scanner;

public class primeornot {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);

        System.out.print("Enter your Number: ");
        int n = sc.nextInt();

        boolean isPrime = true;
        for (int i=2; i <= n-1; i++) {
            if(n % i == 0) { // n is a multiple of i (i != 1 or n)
                isPrime = false;
            }
        }

        if (isPrime == true) {
            System.out.println(n + " is a Prime Number.");
        }
        else {
            System.out.println(n + " is not a Prime Number.");
        }
    }
}
```

10. Print 1 to 10 numbers

```java
public class print1to10 {
    public static void main(String[] args) {
        int counter = 1;
        System.out.println("Printing 1 to 10");
        while (counter <= 10) {
            System.out.println(counter);
            counter++;
        }
    }
}
```

11. Print 1 to N

```java
import java.util.Scanner;

public class print1ton {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        System.out.print("Enter value of n: ");
        int n = sc.nextInt();
        int i = 1;
        while (i <= n) {
            System.out.print(i + " ");
            i++;
        }
    }
}
```

12.Question-1

```java
public class que1 {
    public static void main(String[] args) {
        for (int i=0; i<5; i++) {
            System.out.println("Hello");
            i += 2;
        }
    }
}
```

13.Question-2

```java
import java.util.Scanner;
public class que2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        int num;
        int choice;
        int evenSum = 0;
        int oddSum = 0;

        do {
            System.out.print("Enter the Number: ");
            num = sc.nextInt();

            if (num % 2 == 0) {
                evenSum += num;
            } else {
                oddSum += num;
            }

            System.out.println("Do you want to continue? Press 1 for YES or 0 for NO.");

            choice = sc.nextInt();

        } while (choice == 1);

        System.out.println("Sum of even numbers: " + evenSum);
        System.out.println("Sum of odd numbers: " + oddSum);
    }
}
```

14. Reverse of n

```java
import java.util.Scanner;
public class reverseofn {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        System.out.print("Enter value of n: ");
        int n = sc.nextInt();
        int rev = 0;
        while (n > 0) {
            int lastdigit = n % 10;
            rev = (rev*10) + lastdigit;
            n /= 10;
        }
        System.out.print("Afer Reversing: ");
        System.out.println(rev);
    }
}
```

15. Square Pattern

```java
public class squarepattern {
    public static void main(String[] args) {
        System.out.println("Using for loop");
        for (int line = 1; line <= 4; line++) {
            System.out.println("* * * *");
        }

        int line = 1;
        System.out.println("Using while loop");
        while (line <= 4) {
            System.out.println("*****");
            line++;
        }
    }
}
```

16. Sum of n Numbers

```java
import java.util.Scanner;

public class sumofn {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);
        System.out.print("Enter value of n: ");
        int n = sc.nextInt();

        // i = Iterator
        int i = 1;
        int sum = 0;

        while (i <= n) {
            sum = sum + i;
            i++;
        }
        System.out.print("Sum is: " + sum);
    }
}
```

17. Table of N number

```java
import java.util.Scanner;

public class tableofn {
    public static void main(String[] args) {
        Scanner sc = new Scanner (System.in);

        System.out.print("Enter the Number: ");
        int num = sc.nextInt();

        for (int i = 1; i <= 10; i++) {
            System.out.println(num + " * " + i +" = " + num * i);
        }
    }
}
```

18. While Loop

```java
public class whileloop {
    public static void main(String[] args) {

        // Print Hello World 100 Times
        int counter = 0;
        while (counter < 100) {
            System.out.println("Hello World");
            counter++;
        }
        System.out.println("Printed Hello World 100 Times");

    }
}
```