Name: *Shaikh Irfan Soheb*

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Batch-B

ASSIGNMENT NO.2

CONCEPT OF PROGRAMMING

Q1. Write a program to find sum of all integers greater than 100 and less than 200 that are divisible by 7.

Program :

```
1  package Assignment2;
2
3  public class Q1 {
4
5      public static void main(String[] args) {
6
7          int Add = 0;
8
9          for(int i = 100; i <= 200;i++)
10         {
11             if((i % 7)==0)
12             {
13                 Add = Add + i;
14             }
15
16         }
17         System.out.println("sum   =   " + Add);
18     }
19
20 }
21
```

Output :

Sum = 2107

Q2. Write a program in java that ask three numbers from user and print the greatest among three .

Program :

```
1  package Assignment2;
2  import java.util.*;
3  public class Q2 {
4
5      public static void main(String[] args) {
6
7          Scanner s = new Scanner(System.in);
8          int X;
9          int Y;
10         int Z;
11
12         System.out.println("Enter the three numbers  :  ");
13         X = s.nextInt();
14         Y = s.nextInt();
15         Z = s.nextInt();
16
17         int max = X > Y ?(X > Z ? X : Z) : (Y > Z ? Y : Z );
18
19         System.out.println("greater number is : " + max);
20     }
21
22 }
23
```

Output :

```
Enter the three numbers  :
50
60
70
greater number is : 70
```

Q 3. Write a program to find ASCII value of a character .

Program :

```java
package Assignment2;
// program to find ASCII value of character
public class Q3 {

    public static void main(String[] args) {

        char ch1 = 'A';
        char ch2 = 'B';
        char ch3 = 'C';
        char ch4 = 'D';
        char ch5 = 'w';
        char ch6 = 'x';
        char ch7 = 'y';
        char ch8 = 'z';

        System.out.println("ASCII values are  :  " +(int)ch1+" "+(int)ch2+" "+(int)ch3+" "+(int)ch4);
        System.out.println("ASCII values are  :  " +(int)ch5+" "+(int)ch6+" "+(int)ch7+" "+(int)ch8);
    }

}

```

Output :

```
ASCII values are  :  65 66 67 68
ASCII values are  :  119 120 121 122
```

Q 4 Java Program to Check Whether an Alphabet is Vowel or Consonant

Program :

```java
package Assignment2;
import java.util.Scanner;
public class Q4 {

    public static void main(String[] args) {

        Scanner s = new Scanner(System.in);
        char ch;

        System.out.println("Enter the character : ");
        ch = s.next().charAt(0);

        if (ch=='a'||ch=='e'||ch=='i'||ch=='o'||ch=='u'||ch=='A'||ch=='E'||ch=='I'||ch=='O'||ch=='U')
        {
            System.out.println("Entered character " + ch + " is vowel");
        }
        else
        {
            System.out.println("Entered character " + ch + " is consonent");
        }
    }
}
```

Output :

```
Enter the character :
A
Entered character A is vowel
```

```
Enter the character :
R
Entered character R is consonent
```

Q5. Check if a Number is Positive or Negative using if else statement.

Program :

```
1  package Assignment2;
2  import java.util.Scanner;
3  public class Q5 {
4
5      public static void main(String[] args) {
6
7          Scanner s = new Scanner(System.in);
8          int Number;
9          System.out.println("Enter the  number : ");
10         Number = s.nextInt();
11
12         if(Number > 0) {
13
14             System.out.println(Number + " is positive ");
15         }
16         else {
17
18             System.out.println(Number + " is Negative ");
19         }
20
21
22     }
23
24 }
25
```

Output :

```
Enter the  number :
177
177 is positive
```

```
Enter the  number :
-177
-177 is Negative
```

Q 6 Write a program for swapping two numbers without using third variable

Program :

```
1  package Assignment2;
2
3  public class Q6 {
4
5      public static void main(String[] args) {
6
7          int x = 50;
8          int y = 60;
9
10         System.out.println("Values before Swaping  : " + x +" " + y);
11
12         x = x + y; //50+60=110
13         y = x - y;//110-60=50
14         x = x - y;//110-50=60
15
16         System.out.println("Values After Swaping  : " + x +" " + y);
17     }
18
19 }
20
```

Output :

```
Values before Swaping  : 50 60
Values After Swaping  : 60 50
```

Q.8 Write a program to input basic salary of an employee and calculate its Gross salary according to following : Basic Salary <= 10000 : HRA = 20%, DA = 80%, Basic Salary <= 20000 : HRA = 25%, DA = 90% Basic Salary > 20000 : HRA = 30%, DA = 95%

Program :

```
1  package Assignment2;
2  import java.util.*;
3  public class Q8 {
4
5      public static void main(String[] args) {
6
7          Scanner s = new Scanner(System.in);
8          float hra=0, da = 0, gross = 0;
9          System.out.println("Enter the basic salary is    :   ");
10         float basic = s.nextFloat();
11
12         if(basic <=10000)
13         {
14             hra = basic * 0.20f;
15             da = basic * 0.80f;
16         }
17         else if(10000 >= basic || basic <= 20000)
18         {
19             hra = basic * 0.25f;
20             da = basic * 0.90f;
21         }
22         else
23         {
24             hra = basic * 0.30f;
25             da = basic * 0.95f;
26         }
27         gross = basic + hra + da;
28         System.out.println("Gross salary is " + gross);
29         s.close();
30     }
31
32 }
33
```

Output :

```
Enter the basic salary is    :
15000
Gross salary is 32250.0
```

Q 9 Write a program to print even numbers between 10 to 20.

Program :

```
1  package Assignment2;
2
3  public class Q9 {
4
5      public static void main(String[] args) {
6
7          for(int i = 10; i <= 20; i++)
8          {
9              if(i%2 == 0)
10             {
11                 System.out.println(i);
12             }
13         }
14
15     }
16
17 }
18
```

Output :

```
10
12
14
16
18
20
```

Q10 . Write a program to check if a number is prime or not

Program :

```
1  package Assignment2;
2  import java.util.Scanner;
3  public class Q11
4  {
5      public static void main(String[] args)
6      {
7          Scanner s = new Scanner(System.in);
8          System.out.println("Enter a number to check prime.");
9          int n = s.nextInt();
10         int flag = 0;
11
12         if (n == 0 || n == 1)
13         flag = 1;
14
15         for (int i = 2; i <= n / 2; ++i)
16         {
17             if (n % i == 0)
18             {
19                     flag = 1;
20                     break;
21                 }
22               }
23         if (flag == 0)
24         {
25             System.out.println(n+" is a prime number.");
26         }
27         else
28         {
29             System.out.println(n+" is not a prime number.");
30         }
31         }
32     }
```

Output :

```
Enter a number to check prime.
23
23 is a prime number.
```

```
Enter a number to check prime.
23
23 is a prime number.
```

Q11. Write a program to reverse a Number

Program :

```
1  package Assignment2;
2
3  public class Q12REverseString {
4
5      public static void main(String[] args) {
6
7          int i = 123456;
8          for(;i!=0;)
9          {
10             System.out.println(i%10);
11             i = i/10;
12         }
13
14     }
15
16 }
17
```

Ouput :

654321