FIRST ASSIGNMENT
SEPTEMBER/OCTOBER SEMESTER 2020

BACHELOR OF COMPUTER SCIENCE (HONS.)
(IN COLLABORATION WITH IUKL)

OBJECT ORIENTED PROGRAMMING
(CSC 2515)

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GENERAL INSTRUCTIONS

1. This question booklet consists of 3 pages including this page.
2. There is one **SECTION** in this question booklet.
3. Please submit assignment solution in **SOFT COPY FORMAT in A4 size paper.**

SECTION A
This section consists of FOUR (4) questions. Answer all question in your assignment copy.

1. Write a program HighLow.java that implements a simple guessing game High and Low. The program selects a random number between 1 to 100. The player than tries to guess its value. After each, the program gives a hint "higher" or "lower". An execution might look like this:
   Guess 1: 52
           Hint: higher
   Guess 2: 72
           Hint: lower
   Guess 3: 68
           Correct after only 3 guesses – brilliant!!
   The program is terminated after 10 guesses with a suitable comment. Use Scanner class to take input from the user.

   (10 marks)

2. What is the output of the following?
```
int i=5;
while(i<8){
    for(int j=i;j>4; j--)
        System.out.println((j+1) + " ");
    i++;
}
```
   (6 marks)

3. What is the output for the following code segment:
```
int num=2,val=3;
do{
    switch(num) {
        case 2: System.out.print
((num%val==2)?num++:num+=val);
        break;
        case 4: System.out.print (num++ + "" + ++ num);
        default: System.out.print (num++);
    }
    System.out.print (" stars");
}while(num >1 && num <5);
```
   (4 marks)

4. You have been assigned to develop a program, which is able to identify only the even number from a range of positive numbers and accumulate them. As to identify the even numbers and sum them, a method is required to be created. Write a full program to take input numbers from user and display the output as following:

Sample screen of output:
How many integer values to process? 5
Enter 5 integer values: 3 6 2 4 7
Even numbers are: 6 2 4
Total even numbers: 12

Program Outline:

```java
import java.util.Scanner;
public class FindEven
{
    public static void main(String [] args){
        Scanner input=new Scanner(System.in);
        System.out.println("Enter Size:");
        int size=input.nextInt();
        int [] numbers=new int [size];
        System.out.println("Enter " +size + "integer
values:");
        //Assign the value received from user to array, call
appropriate method to find
        // even number and display the sum
                                                (4 marks)
    }

    public static int evenNumbers(int [] num)
    {
        int total=0;
        //determine and print the even numbers and return the
sum of even numbers after calculation
                                                (6 marks)
    }
}
```

End of Questions