Date: 6.2.2021 Time: 2:30-4:00PM

Duration: 1 Hour 30 Minutes Max. Marks: 50

ANSWER ALL QUESTIONS

1) a) Write a C program to find the sum of a sequence of integers. The first integer that you read will specify the number of values remaining to be entered.
For examples, the input sequence 5 50 60 70 80 90 conveys that 5 integers (50, 60, 70, 80, 90) are to be summed.

[5M]

b) Write a C program that calculates and prints the sum of the even integers within a specified range.

[5M]

2) a) Write a C program that asks you to enter an ASCII code value, such as 66, and then prints the character having that ASCII code. [5M]

b) Write a C program to convert a string from lowercase to uppercase. [5M]

3) a) What will be the output of the following code fragment? Justify your answer.

```
int b[10] = {0}, i;
for (i = 0; i <= 10; ++i )
{
        b[i] = 1;
        printf("%d",b[i]);
}
```

[3M]

b) What will be the output of the following program?

```
#include<stdio.h>
struct sample {
        int a;
        char b;
        float c;
};
int main()
{
      struct sample s;
      s.a=3,s.b='A',s.c=6;
      printf("%d, %c, %f", s.a, s.b, s.c);
      return 0;
}
```

[3M]

c) Write a C program to check whether a number is positive, negative or zero. Use switch-case.[4M]

4) a) Write a C program that prints the index of the largest value stored in a one dimensional array.

b) Write a C program that segregates even and odd numbers in an array. The program should put all even numbers first, and then odd numbers.

[5+5=10M]

5) Write a C program with the following specifications/control flow:
   i) Print "Main Function" in main(); Call a function first() from main().
   ii) The function first() should print "First" and call another function second().
   iii) second() should print "Second" and call another function third().
   iv) third() should print "Third" and return a value 5 to second(). Print this value in second().
   v) Print "Exit Second" in second().
   vi) Print "Exit First" in first().
   vii) Print "End" in main().

Expected Output:

```
Main Function
First
Second
Third
5
Exit Second
Exit First
End
```

[10M]