F.Y.BSc IT
SEMESTER I
IMPERATIVE PROGRAMMING
12.2.20

TIME: 2 ½ HOURS   MARKS: 75

N.B: ALL QUESTIONS ARE COMPUSORY
     FIGURES TO THE RIGHT INDICATE FULL MARKS.

Q.1 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Draw a flowchart to calculate area of triangle.
   B) Draw a flowchart to calculate sum of odd numbers between 11 and 50
   C) Write an algorithm to print numbers between 1 and 50.
   D) Write an algorithm to calculate perimeter of a square
   E) Describe the compilation and execution of C program
   F) Describe the data types in C

Q.2 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Explain the logical operator.
   B) Explain the assignment Operator
   C) Explain the library functions in C
   D) Explain the puts( ) function in C
   E) Describe the scanf ( ) function in C
   F) Describe the putch( ) and putchar( ) functions in C

Q.3 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Write a program in C to calculate the sum of following series using while loop:
        s = 1 + 2 + 3 +…… + 100
   B) Write a program in C to display the following using nested loop:

   1

   1 11

   1 11 111

   1 11 111 1111

   1 11 111 1111 11111

   C) Explain the if..else statement with the help of a program
   D) Explain difference between if ( ) and while ( ) with the help of program
   E) Describe the recursive functions in C with the help of an example
   F) Describe the call by reference in C

Q.4 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Explain the external storage class in C with the help of a program
   B) Explain the automatic storage class in C with the help of a program
   C) Explain the concept of macros in C with the help of a program
   D) Write a program in C to sort and array in descending order
   E) Describe two subtract two matrices in C
   F) Describe strings functions in C

Q.5 ANSWER THE FOLLOWING (ANY THREE):   15

   A) Explain the structures in C
   B) Explain passing the pointers as parameters in C with the help of an example
   C) Explain the pointers arithmetic in C with the help of an example
   D) Explain the how arrays can be accessed using pointers with help of program
   E) Describe the union in C
   F) Explain the pointers declaration in C with the help of an example

                                    XXX