INTRODUCTION TO COMPUTER PROGRAMMING

Subject Code: CSL-101

Time Allowed: 03 hours. Maximum Marks: 100

Before answering the question paper the candidate should ensure that they have been supplied the correct question paper. Complaints in this regard, if any, shall not be entertained after the examination.

Note: Attempt any five questions and all questions carry equal marks.

Section – A

1. (a) What is a Computer? Draw a neat labeled block diagram of a computer and explain the functions of each unit. (8)

(b) What is a microprocessor? Briefly discuss the generation of microprocessor. What was the technology used in each generation? (6)

(c) Covert the following:
   i) \((2\text{CDB})_{16} = (?)_{10}\)
   ii) \((89)_{10} = (?)_{8}\)
   iii) \((10101001110)_{2} = (?)_{10}\)

2. (a) What is an operating system. What are the various functions of operating system (6)

(b) List the merits and demerits of:
   i) Machine language  ii) Assembly language  iii) High level language (9)

(c) Differentiate between Compiler and Interpreter (5)

3. (a) What is a Computer Network? Also define the term network topology and various types of topologies with their advantages and limitations (15)

(b) How WAN is different from LAN. Explain (5)

Section – B

4(a) Define the terms:
   i) token  ii) keyword  iii) data types  iv) variable
   v) constant (10)

(b) Evaluate the following expressions
   i) \(2*(i/3)+4*(j-2)\) where \(i=8 \ j=5\) (3)

(c) Write a program that reads three number A, B, and C and prints the largest. (7)

5(a) What is an array. How will you declare and initialize it. Explain it with the help of a program (10)

(b) What is recursion. Write a program to find the factorial of a number using recursion (10)

6(a) What is the difference between structure and union (10)

(b) Differentiate between array and structure. (4*2=8)

(c) How will you access the members of a structure? What is the need of array of structures? Explain with the help of a program. (12)