A-1712

B. Sc. (I.T) (Sem. I) Examination
March / April – 2015
The Science of Programming

Time : 3 Hours] [Total Marks : 70

Instruction:

Fill up strictly the details of sign on your answer book.

Name of the Examination:
B. SC. (I.T) (SEM. I)
Name of the Subject:
THE SCIENCE OF PROGRAMMING

Subject Code No.: 1 7 1 2 Section No. (1, 2,...) Nil

1 Answer following questions: (Any Three) 18

(1) Differentiate between various language translator.

(2) Differentiate between pre test and post test loop with example.

(3) What do you mean by branching. Differentiate between NESTED IF and SELECT CASE structure.

(4) Explain high level, assembly and machine level language with their advantages and disadvantages.

2 Answer following questions: (Any Three) 18

(1) What is flowchart? Explain it with its symbols, advantages and disadvantages.

(2) What do you mean by jumping? Differentiate between forward jumping and backward jumping. Explain GOTO statement with example.

(3) Explain INSTR, ASC and STR$ function with example.

(4) What do you mean by user defined function? How is it different from Sub routine? Explain with example.

A-1712] 1 [Contd...
3 Answer following questions: (Any Three)

(1) Explain MIDS, HEX$ and TIME$ function with example.
(2) What is File? Why is it important? Explain various mode in which file can be opened with example. Write a program to append contents of file "student.dat" into another file "Info.dat".
(3) Differentiate between Debugging and Testing. Explain different type of errors with example.
(4) What is an array? Why is it used? How will you store information of 5 students in two dimensional array.

4 Answer following questions: (Any Four)

(1) Write a program to calculate sum of all digits present in a given number.
(2) Write UDF to check whether a given number is prime or not.
(3) Write a program to perform matrix addition, subtraction and multiplication with example.
(4) Write a program to generate Fibonacci series for number upto N.
(5) The marks obtained by a student in 5 different subject are input through keyboard. The student gets a division as per the following rules:
   Percentage above or equal to 60  →  First Division
   Percentage between 50 and 59   →  Second Division
   Percentage between 40 and 49   →  Third Division
   Percentage less than 40        →  Fail

Draw a flowchart to take input of calculate the division obtained by the student.