LAST MOMENT TUITIONS

Structured Programming Approach - Dec 17

First Year Engineering (Semester 2)

Total marks: 80
Total time: 3 Hours

INSTRUCTIONS
(1) Question 1 is compulsory.
*(2) Attempt **any three** from the remaining questions.*
(3) Draw neat diagrams wherever necessary.

1.a. Define union. Compare structure and union. (4 marks)
1.b. What is an error? Explain different types of errors occurred in program. (4 marks)
1.c. Explain switch case and if-else ladder with example. (4 marks)
1.d. Explain any four standard library functions from string.h. (4 marks)
1.e. Explain break and continue statement with example. (4 marks)

2.a Define Algorithm. Write Algorithm to check whether given number is armstrong Numbers or not also mention input and output specifications to algorithm. (10 marks)
2.b. Explain various storage classes with example. (10 marks)

3.a. Explain Nested Structure. Write a program using nested structure to create an Array of structure to store the details of N students. (5 marks)
The details are,

i)Student name
ii)Student Roll no
iii)Marks of Physics, Chemistry, Maths
Calculate the total of P-C-M. Display the data in the format

Name Roll no. Total Marks

3.b. Define pointer and its use. Explain array of pointer with example. Write program to swap two values by using call by reference concept. (10 marks)

4.a. Explain recursive function. Write a program to find the GCD of a number by using recursive function. (10 marks)

4.b. Write a program to perform matrix multiplication by passing input matrix to the function and printing resultant matrix. (10 marks)

5.a. Write a program to display following pattern:

enter image description here (5 marks)

5.b. Write user defined function to implement string concatenation. (5 marks)

5.c. Explain need of file data and various modes of files also write program to create and edit copy of file. (10 marks)

6.a. Write a program to sort the given array in ascending order. (10 marks)

6.b. Write a program for finding sum of series, 1+2+3+4... upto n terms. (5 marks)

6.c. Draw the flowchart to find roots of a quadratic equation. (5 marks)