Roll No. ......

Second SEMESTER

B.Tech.(A Group)

END SEMESTER EXAMINATION

May-2016

CO-102 Programming Fundamentals

Time: 3:00 Hours

Max. Marks: 40

> Note: Answer any five. All questions carry equal marks.
> Assume suitable missing data, if any.

Q1 (a) What is the difference between algorithm, flow chart and program? Explain the symbols used in flowchart.   4

(b) Using pointers, write a function that receives a character string and a character as argument and replce the first occurrences of this character in the string with '$'. This function should return the corrected string.   4

Q2. (a) What are tokens in C? Explain the relational, arithmetic operators with examples.   4

(b) Write a program in C to print prime numbers from 10 to 30 and their squares.   4

Q3. (a) Write the guidelines, syntax with examples to use scanf() function in C language.   4

(b) Explain the two way selection (if, if-else, nested if-else, cascaded if-else) in C language with syntax .   4

Q4. (a) What is the relationship between function definition, function prototype and type of arguments? How they can be declared within a function? Give relevant code.   4

(b) Write a C program to enter an array from keyboard, then sort using bubble sort. Explain the algorithm.   4

Q5. (a) What is union? How the nesting of union and structure with each other is possible? Give suitable code.   4

(b) Consider

Int I = 10, *ptr, a[5] = {1,3,2,5, 9};

Identify correct and incorrect expressions with proper justification

(i) I = ptr   (ii) ptr = I   (iii) I = *ptr   (iv) prt = a

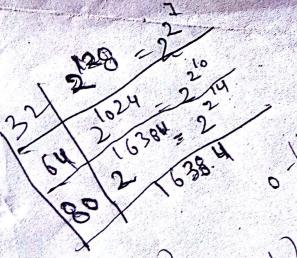(v) a = prt   (vi) ptr = &a   (vii) ptr = &I   (viii) *ptr = &a[4]

Q6. (a) Give the size and value range of the following data types. How range is calculated for each?
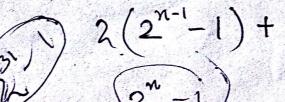
(i) long int   (ii) long unsigned   (iii) short int

(iv) long float   (v) unsigned char   **4**

(b) Explain the terms fopen, fclose, break, void   **4**
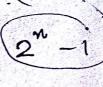
Q7. Write short notes (any two)   **8**

(a) Call by reference

(b) Features of OOP

(c) Recursion