Printed Pages: 02   Sub Code: RAG204

Paper Id: | 1 | 8 | 0 | 2 | 3 | 4 | Roll No.

B. TECH.
(SEM -) THEORY EXAMINATION 2017-18
FUNDAMENTALS OF COMPUTER PROGRAMMING

Time: 3 Hours   *Total Marks: 70*

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. **Attempt *all* questions in brief.**   **2 x 7 = 14**

    a. What do you mean by Flow Chart? Explain its various components.
    b. What do you mean by Hexadecimal number system?
    c. What do you mean by Operating System? Give any two examples.
    d. What do you mean by pointer? Explain it with example.
    e. What is purpose of switch statement in 'C'? Explain it with an example.
    f. What are functions? How many types of functions are there?
    g. What do you mean by an 'Algorithm'? Write an algorithm to add two numbers.

SECTION B

2. **Attempt any *three* of the following:**   **7 x 3 = 21**

    a. Write a C program which reverses the digits of the integer input given to it. For example, an input 54321 produce output as 12345.
    b. What do you mean by Operators? Discuss about arithmetic operators and relational operators.
    c. Write down a program in 'C' language to search an element in an array using binary search.
    d. Write a C program to sort a set of n elements using bubble sort.
    e. Explain the Storage Class used in C Language with their Scope.

SECTION C

3. **Attempt any *one* part of the following:**   **7 x 1 = 7**

    (a) Discuss Enumerated Data Type in C Language with the help of code.
    (b) Explain the Parameter passing by "Value" &" Reference"

4. **Attempt any *one* part of the following:**   **7 x 1 = 7**

    (a) Explain the Followings (i) Top-down Approach (ii) Recursion
    (b) Differentiate between System Software & Application Software with example.

5. **Attempt any *one* part of the following:**   **7 x 1 = 7**

    (a) Define the Operators in C Language with their precedence & Associativity.
    (b) What are different data types in C language? Explain range, memory size of each with its format specifier.

6. **Attempt any *one* part of the following:**   **7 x 1 = 7**

(a) (i) Describe Compiler. Interpreter, Assembler?
(ii) Explain in detail about scope of a variable.
(b) Discuss about the generation of computers along with its advantages and disadvantages

7. **Attempt any *one* part of the following:**   **7 x 1 = 7**

(a) Write down a Program in 'C' to declare a structure which contains the following members. List students having Roll no. Name, Father's name. Age, City
(b) Write short note on the following:
(i) ASCII code
(ii) Array