B.Tech. (Common for all Branches) 2nd Semester

F. Scheme Examination, May–2015

FUNDAMENTALS OF COMPUTER AND

PROGRAMMING IN C

Paper–CSE-101-F

Time allowed : 3 hours]   *[Maximum marks : 100*

Note : ***Question No. 1 is compulsory.*** *Attempt **five** questions in total selecting **one** question from each unit.*

1.   Attempt **all** parts :   2×10=20

    (a)   How number 8 is different from character "8"?

    (b)   What is a logical error ? Give few examples of logical errors.

    (c)   What is the purpose of pre-processor statement define ? Distinguish it from variable declaration statement.

    (d)   What is the header file ?

    (e)   What is local variable and global variable ?

    (f)   What is the purpose of switch statement ? Give its general format.

    (g)   What are reserved words ? What is the limitation imposed upon them ?

    (h)   What function is served by repeater and hubs ?

    (i)   What is macro ?

Section–A

2. (a) Explain different modes of operation of a computer.   10

    (b) What is a language processor ? Explain different types of language processors.   10

3. (a) Explain working of any two input devices.   8

    (b) Explain the layered structure of UNIX. Compare it with windows operating system.   12

Section–B

4. (a) What is data communication ? Explain different modulation schemes.   10

    (b) What do you mean by network topology ? Explain bus and tree topology with their advantages and disadvantages.   10

5. Explain OSI model.   20

Section–C

6. Write a program using structures and function for gathering all the information of all the books in the library including book title, author name, publisher name, date of printing, edition number, cost of book, number of copies of each book.   20

7. (a) Write a program to print reverse of a given number.   10

    (b) Write a program which input an array of 10 characters and find the number of duplicate characters, if any.   10

Section–D

8. (a) Write a program to read a file, count number of lines, number of words, number of characters and white spaces till the end of file is encountered.

12

   (b) Explain the concept of dynamic memory allocation. 8

9. (a) Explain various file operations with an example.

10

   (b) Write a program that accepts two one dimensional arrays and find the sum of corresponding elements, and this sum is stored in the third array. Finally, it prints the resultant array. This program uses dynamic memory allocation. 10

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