

I B. Tech I Semester Supplementary Examinations, November - 2020
COMPUTER PROGRAMMING

(Com. to CE,EEE,ME,ECE,CSE,IT,EIE,Aero E, Auto E, Bio-Tech,Chem E, Metal E, Min E,PCChem E,ECom E,PE)
 Time: 3 hours Max. Marks: 70

- Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)
 2. Answering the question in **Part-A** is Compulsory
 3. Answer any **FOUR** Questions from **Part-B**
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PART -A

1. a) Define bit and byte. How these are useful in computer programming? (2M)
- b) What is an escape sequence? What is its purpose? (2M)
- c) What are the purposes of break and continue statements? (2M)
- d) What is the difference between function declaration and function definition in C? (2M)
- e) What is a recursion? Write its advantages. (2M)
- f) What is a null character? What is its use in a string? (2M)
- g) What is dangling memory problem. (2M)

PART -B

2. a) Explain the following: (7M)
 - (i) Machine Language
 - (ii) Assembly Language
 - (iii) Low and High-Level Languages
 - (iv) Procedural and Object-Oriented Languages.
- b) Describe the steps involved in program development process? (7M)
3. a) Explain basic data types and their sizes with suitable examples. (6M)
- b) What is associativity? Explain the operator precedence. (4M)
- c) Discuss increment and decrement operators available in C and the rules associated with them. (4M)
4. a) Explain the for loop and nested for loop with suitable examples. (5M)
- b) Differentiate between else-if and switch. Illustrate. (5M)
- c) Write a C program to find sum of the digits of any given positive integer. (4M)
5. a) Explain various types of functions supported by C language? Give example for each of the C function. (7M)
- b) Write a recursive function to display the first n terms of the Fibonacci series: (7M)
 0 1 1 2 3 5 8 13
 Also write the main program.

6. a) What is an array? What are the different ways of initializing the arrays? What are the disadvantages of an array? Discuss. (7M)
- b) Write a C program to find the length of a given string without using built-in functions. Also check whether the given string is palindrome or not. (7M)
7. a) Explain the dynamic memory management functions with examples. (7M)
- b) Write a C program to create a text file and read the text from the created file and count the number of vowels and consonants present in the file. (7M)