

**I B. Tech I Semester Supplementary Examinations, May - 2018****C PROGRAMMING**

(Com. to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks  
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1. a) Explain arithmetic, relational and logical operators available in C language with examples. (8M)
- b) What is a data type? Explain basic data types with their sizes. How the range of data stored can be extended? (7M)
2. a) Discuss multi-way selection statements with example. (5M)
- b) What are bitwise logical operators? Explain them with suitable programming example. (4M)
- c) Write a C program to find the biggest of given three numbers using nested if-statement. (6M)
3. a) What are the differences between do while and while loops? Discuss about their usage. (6M)
- b) Write a program to count number of characters, words and lines and white spaces in the given text. (9M)
4. a) Explain about the two-dimensional array and its operations. (7M)
- b) Write a program to evaluate the average of the values in an array. (8M)
5. a) List the storage classes in C. Explain each of them with examples. (9M)
- b) Write a C program to print Fibonacci series using recursion. (6M)
6. a) Discuss various valid arithmetic operations that can be performed on pointers in C. (6M)
- b) What is pointer? Discuss about pointers to pointers with examples. (5M)
- c) Write a short note on dangling memory. (4M)
7. a) What is structure? Explain array of structures with example. (5M)
- b) What is bit-field? What are its uses? Explain with an example. (5M)
- c) How structure is declared and initialized? Explain with an example. (5M)
8. a) Explain the following functions: (i) getw() (ii) putw() (iii) getc() (iv) putc(). (7M)
- b) Two files DATA1 and DATA2 contain sorted lists of integers. Write a C program to produce a third file DATA which holds a single sorted, merged list of these two lists. (8M)