CODE: 17CA05101

B. Tech I Year I Semester Regular Examinations, December 2017

COMPUTER PROGRAMMING

(Common to all branches)

Time: 3 hours Max Marks: 70

PART – A

1. Answer any **ten** questions (10 x 2 = 20 Marks)

(a) Define Algorithm.
(b) Differentiate Compiler and Interpreter.
(c) List the C fundamental data types mentioning their size.
(d) Differentiate structure and union.
(e) Discuss the usage of typedef and sizeof() with suitable example.
(f) Differentiate While and Do-While loop.
(g) Differentiate the usage of break and continue.
(h) Define pointer? Give example.
(i) Define recursive function and give one suitable example.
(j) Differentiate call by value and call by reference.
(k) Describe Dynamic memory management functions.
(l) Differentiate the usage of the preprocessor directives #include and #define.

PART - B

Answer all five units (5 x 10 = 50 Marks)

UNIT-I

2. (a) Describe the steps involved in the Software Development Process.
(b) Draw the Flow chart to find the greatest among the given three numbers

OR

3. (a) If m=12, then find n=m++ * 5 + --m;
If a=12, b=8, find the value of a*=++a/6 + b++ %3
(b) Explain the following with one example each Arithmetic Operator, Relational Operator and Logical Operator

UNIT-II

4. (a) Explain with example the switch Statement in C Program?
(b) Develop a C Program to find the factorial of given number

OR

5. Device a C program that checks whether two matrices can be multiplied or not. If yes, multiply them and display the resultant matrix in the matrix format

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UNIT-III

6. Explain the following string handling functions with proper examples:

i. strcat()
ii. strstr()
iii. strcmp()
iv. strrev()
v. strlen()

OR

7. (a) Develop a C program to find the sum of the elements in any array using pointer arithmetic.
(b) Discuss Array of pointers with suitable example

UNIT-IV

8. (a) What is Structure in C? Explain how to declare and initialize a Structure to store DATE (Day, Month,Year)
(b) Discuss the various Dynamic memory allocation functions supported by C language

OR

9. List and demonstrate various storage classes which can be used with functions.

UNIT-V

10. Define File and File Pointer? Explain different functions used for the various File operations with the help of appropriate examples.

OR

11. Write a program to copy content of one file to another, replacing all lowercase characters with their uppercase equivalents

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