15CS111

8. a) Explain with suitable example initialization of one-dimensional array and two dimensional array.   10   L2

    b) Explain any four string handling functions in 'C'. Write a C program to find if string is palindrome or not.   10   L2

Unit – V

9. a) Explain with an example, how opening and closing of file is performed.   8   L2

    b) Define Pointer. How to initialize pointer variable?   6   L2

    c) Define a structure. Give its general syntax and explain with an example.   6   L2

10. a) Write a program in C to exchange the values stored in two locations in the memory, using pointer.   8   L

    b) Write a note on Arrays of Structures.   6   L

    c) Discuss getc and putc functions with suitable example.   6   L

BT* Bloom's Taxonomy, L* Level

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NMAM INSTITUTE OF TECHNOLOGY, NITTE

(An Autonomous Institution affiliated to VTU, Belagavi)

First Semester B.E. (Credit System) Degree Examinations

November - December 2015

15CS111 – COMPUTER CONCEPTS AND 'C' PROGRAMMING

Duration: 3Hours   Max. Marks: 100

Note: Answer Five full questions choosing One full question from each Unit.

Unit – I

				Marks	BT*
1.	a)	Differentiate between the following. i. Secondary memory and primary memory. ii. Application software and System software.		8	L*2
	b)	List any functions of operating system.		6	L2
	c)	Explain working of CRT monitor with a neat diagram.		6	L2
2.	a)	List the different types of computers. Explain types of computers that are designed for use by organizations.		8	L1 / L2
	b)	List different types of printers. Explain working of Dot matrix printer with a neat diagram.		6	L1 / L2
	c)	Explain the various factors affecting the processing speed of a computer.		6	L2

Unit – II

3.	a)	List out the various symbols used in the flowchart. Design an algorithm & flowchart to calculate factorial of a number.	10	L1 / L6
	b)	What are variables? Discuss how variables are declared & initialized in C.	4	L2
	c)	Explain the following i. Relational Operator ii. Logical operator iii. Assignment Operator	6	L2
4.	a)	Differentiate between Keywords and Identifiers.	4	L4
	b)	What are constants? Explain the different types of constants in C.	8	L2
	c)	Evaluate the following expressions: i=3, j=4, k=2 (i) i++ - j-- (ii) j+1 / i-1 (iii) j++ / i-- (iv) ++k % --j	8	L3

Unit – III

5.	a)	Explain the format for standard output function along all the options with an example	10	L2
	b)	Design and develop a C program to find a year is leap year or not using if – else statement	6	L5
	c)	Justify why a goto statement is a bad programming practice with a suitable example.	4	L6
6.	a)	Write a flow chart for if – else statement.	6	L2
	b)	Design and develop a C program to find the given number is an armstrong number or not and print the suitable message (Armstrong Number : 371 = 3*3*3+7*7*7+1*1*1 = 371)	8	L5
	c)	Compute a program in C to find the given input character is a vowel or consonant. Also display the input character's ASCII value and print the suitable messages.	6	L4

Unit – IV

a)	Explain the different categories of functions with example for each.	10	L2
b)	Design a C program using functions to perform linear search for a given integer in a single dimensional array of numbers and report success or failure in the form of a suitable message.	6	L5
c)	Explain with an example, how do you pass array as a parameter to a function.	4	L2

P.T.O.