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NMAM INSTITUTE OF TECHNOLOGY, NITTE
(An Autonomous Institution affiliated to VTU, Belagavi)

III Sem B.E. (Credit System) Mid Semester Examinations - II, March 2017

16CS111 – COMPUTER CONCEPTS AND 'C' PROGRAMMING

Duration: 1 Hour   Max. Marks: 20

*Note: Answer any **One** full question from **each Unit**.*

		Marks	BT*
	Unit – I		
a)	Define function? Illustrate the elements of user-defined functions with proper syntax and example.	4	L*4

b)	Consider the following string initializations;
	 char s1[20] = "BeginnersBook";
	 char s2[20] = "BeginnersBook.COM";
	 Write the output of the following string handling functions with justifications:
	 i)strncmp(s1, s2, 8); ii)strncat(s1,s2, 3);
	 iii)strcpy(s1,s2); iv)strstr(s1,"Book");
		6	L6

a)	Explain the initialization of one dimensional and two dimensional arrays with suitable examples.	5	L3
b)	Write a user-defined function to perform bubble sort in an ascending order for a given input array of n elements and also show the number of passes on the input elements 50,40,1,20,10.	5	L5
	Unit – II		
a)	What is pointer in C? Explain the declaration and initialization of pointer variables with example.	3	L2
b)	List out the difference between arrays and structures.	3	L3
c)	Explain the file handling function fopen() with proper syntax and example and also mention the different modes of operations in files.	4	L1
a)	Discuss the structure definition and different methods of structure variable declarations with suitable examples.	5	L2
b)	Write a C program to read N integers into an array and find the sum of elements using pointers.	5	L5

Bloom's Taxonomy, L* Level

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NMAM INSTITUTE OF TECHNOLOGY, NITTE

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II Sem B.E. (CSE) Mid Semester Examinations - I, February 2017

16CS111 – COMPUTER CONCEPTS AND C PROGRAMMING

Duration: 1 Hour   Max. Marks: 20

*Note: Answer any **One** full question from **each** Unit.*

	Unit – I	Marks	BT*

1. a) Give rules for framing variable name in C. Identify the valid variable names from the list given below:
   - i. int_float
   - ii. price$
   - iii. char
   - iv. num_1
   - v. 5num
   - vi. Group one

   5 L*4

   b) Define Algorithm. Design an algorithm and flowchart to accept the *year* as the parameter and check whether the year is a leap year or not.

   5 L5

2. a) Describe the Structure of C program with programming example.

   4 L2

   b) Evaluate the following expressions:
   - i. a + 2 > b && !c || a != d && a – 2 <= e where a=10, b= -6, c=1, d=10, e=5
   - ii. x=(--x)-(x--) where x=5
   - iii. a+=(a++)+(++a) where a=3

   6 L5

Unit – II

3. a) Explain the following unformatted Input/Output function with programming example for each.
   - i. getchar()
   - ii. putchar()
   - iii. getch()
   - iv. getche()
   - v. gets()
   - vi. puts()

   6 L2

   b) Write a program to find the reverse of a given number and check whether its a palindrome or not. Also, Check if the number entered is a negative number and display an appropriate error message for the same.

   4 L5

4. a) Explain **else if** ladder statement. Design a C program for simulation of a simple calculator using else-if-Ladder.

   6 L5

   b) Differentiate between the Pre-test and Post-test loop.

   4 L2

BT* Bloom's Taxonomy, L* Level

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NMAM INSTITUTE OF TECHNOLOGY, NITTE
(An Autonomous Institution affiliated to VTU, Belagavi)

I Sem B.E. (Credit System) Mid Semester Examinations - II, October 2017

17CS111 – COMPUTER CONCEPTS AND 'C' PROGRAMMING

Duration: 1 Hour

Max. Marks: 20

Note: Answer any One full question from each Unit.

Unit – I

			Marks	BT*
1.	a)	Write a C program to find largest of 3 numbers using nested if..else statements.	5	L*3
	b)	Explain the general form of switch statement with an example.	5	L2
2.	a)	Explain formatted output with suitable examples.	5	L2
	b)	Write a C program to generate multiplication table of a number using for loop.	5	L3

Unit – II

			Marks	BT*
3.	a)	Explain the call by value concept in function with a suitable example.	5	L3
	b)	Write a C program to find the sum of diagonal elements in a matrix, print a suitable message if a matrix is non square matrix.	5	L3
4.	a)	Write a C program to perform binary search on unsorted elements.	6	L4
	b)	Explain elements of user defined function.	4	L3

BT* Bloom's Taxonomy, L* Level

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