LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

SECOND SEMESTER – **APRIL 2023**

UCA 2502 – PROGRAMMING TECHNIQUES AND C

Date: 03-05-2023 Dept. No. Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

	SECTION A - K1 (CO1)
	Answer ALL the Questions **(10 x 1 = 10)**
1.	**Answer the following**
a)	Define variables.
b)	What is syntax?
c)	Define keywords.
d)	What is the use of Pointer in C?
e)	What is fread()?
2.	**Multiple Choice Question**
a)	_____ error is syntactically correct but has no meaning. 1. Semantic 2. Syntax 3. Linker 4. Runtime
b)	____ are a way to group several related variables into one place. 1. Pointers 2. Structures 3. Conditional statements 4. Files
c)	____is used to dynamically allocate a single block of memory in C. 1. typedef() 2. main() 3. malloc() 4. None of the above
d)	_____are used to store multiple values in a single variable. 1. Function 2. Pointer to structure 3. Recursion 4. Arrays
e)	_____are the variables which contain the addresses of some other variables. 1. Arrays 2. Structures 3. Pointers 4. None of the above
	SECTION A - K2 (CO1)
	Answer ALL the Questions **(10 x 1 = 10)**
3.	**Fill in the blanks**
a)	Boolean data type header file can be used as _____
b)	Any function which calls itself is called____.
c)	____specifies the type of data that a variable can store such as integer, floating, character, etc.
d)	To access an array element, refer to its___
e)	An array involving three subscripts [ ] [ ][ ] is known as a____
4.	**True or False**
a)	Variable name num and NUM are same.
b)	A nested structure in C is a structure within structure.

c)	int money; Here, int is a keyword.
d)	A multi-dimensional array can be termed as an array of arrays that stores homogeneous data in tabular form.
e)	typedef is used in c to provide some meaningful names to the already existing variable.
	SECTION B - K3 (CO2)
	Answer any TWO of the following in 100 words (2 x 10 = 20)
5.	Illustrate Boolean data type in c with a sample program code.
6.	Describe the various steps of designing complex programs.
7.	Interpret the concept of expressions with its types.
8.	Demonstrate type conversions in C with an example.
	SECTION C – K4 (CO3)
	Answer any TWO of the following in 100 words (2 x 10 = 20)
9.	Illustrate the concept of arrays to pointers with an example.
10.	Describe any four types of string functions.
11.	Explain the various pointer operations.
12.	Examine standard I/O in C.
	SECTION D – K5 (CO4)
	Answer any ONE of the following in 250 words (1 x 20 = 20)
13.	Explain the various operators in C with an example code.
14.	Explain the various conditional statements with examples.
	SECTION E – K6 (CO5)
	Answer any ONE of the following in 250 words (1 x 20 = 20)
15.	Write a detailed note on types of an array with sample programs.
16.	Illustrate communicating with files in C with an example program.

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