

BRAINWARE UNIVERSITY

Course – B. Tech.(CS)

Basic Computation and Principles of Programming (BCSE101)

(Semester - 1)

Time allotted: 3 Hours Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group -A

(Multiple Choice Type Question) $10 \times 1 = 10$ 1. Choose the correct alternative from the following (i) C language is invented in _____. a. 1968 b. 1970 c. 1971 d. 1972 How many keywords are present in C language? (ii) a. 26 b. 32 c. 108 d. 40 (iii) Which one is a keyword? a. pointer b. malloc c. string d. do (iv) In UNIX system the size of a character is a. 2 bit b. 8 bit c. 4 bit d. 6 bit (v) Logic error is obtained in a. Run time b. Compilation time c. Loading time d. Linking time (vi) ASCII stands for a. American Standard Code for b. American Standard Code for Information Interchange **Instruction Interchange** c. American Standard Code for d. American Secured Code for **Interchange Institute** Information Interchange

		DC	3L101/201/ 10
(vii)	Which one is the assignment operator?		
	a. &&	b. <	
	c. <<	d. +=	
(viii)	typedef is a/ an		
	a. operator	b. function	
	c. keyword	d. none of these	
(ix)	By default the return type of a function	is	
	a. void	b. int	
	c. float	d. None	
(x)	%d is called as		
	a. format Painter	b. format Syntax	
	c. format Specifier	d. format Symbol	
	Gro	oup – B	
	(Short Answe	r Type Question)	$3 \times 5 = 15$
 Answer any <i>three</i> from the following What is the difference between while and do while loop? What is an algorithm? Write down the characteristics of an algorithm. Draw a flowchart to find out the average of 'n' numbers. Write short note on – a) Unary operator. b) Nested Loop. c) Ternary operator Illustrate the functionality of switch statement with an example. What is the use of 'default' case? 			[5] [2+3] [5] [1+2+2] [4+1]
		oup – C	
	(Long Answe	er Type Question)	$3 \times 15 = 45$
7. (er any <i>three</i> from the following (a) Give a numerical example of using (b) What will heppen if % is used betw (c) How can you evaluate ((-b±√(b²-4ac))) (d) Write a program to check if a given	een two float variable? c)/2a) in C language?	[3] [2] [5] [5]

			BCSE101 / 2017 - 18
8.	(a)	What are the different data types in C?	[5]
	(b)	Briefly discuss about storage classes in C.	[5]
	(c)	Write short note on array of pointer.	[5]
9. (a) (b)		Write a program to find the maximum of 10 numbers using user	[6]
	(4)	defined functions.	[5]
	(h)	Write a C program to find the multiplication of two matrices. The	
	(0)	size of matrices and the data must be user-input.	[10]
10	(a)	<u>.</u>	
10. (a)		1	[5]
	(b)	Write a C code to print the following pattern using "while" loop	
		* *	
		· · · · · · · · · · · · · · · · · · ·	
		* * *	
		* * * * * * *	
		* * * * * * *	
			[10]
11.	(a)	What is Dynamic Memory Allocation? Give Example.	[5]
(b) (c)		Write a C program to print the Fibonacci series using function ca	
			= =
	(0)	What is "EOF"? How a file can be read by a C Program? What a	
		the different modes in which a file can be read?	[1+2+2]