Q. Code: 856809

Reg. No. | | | | | | | | | |

B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

First Semester

GE16151 – COMPUTER PROGRAMMING

(Common to all branches)

(Regulation 2016)

Time: Three Hours **Maximum : 100 Marks**

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

		CO	RBT
1.	Find the decimal equivalent of the binary number (1011.011)2 .	1	AN
2.	What is meant by Pseudocode?	2	R
3.	Distinguish between variable and constant.	3	AN
4.	What is the structure of C program?	4	R
5.	List out the features of Arrays.	3	R
6.	Show a C function to compare two strings.	3	AP
7.	Why is scope of variable necessary in function?	3	U
8.	Define array of pointers with example.	3	R
9.	How typedef is used in structure?	3	AN
10.	Discover the meaning of enum.	3	AP

PART B - (5 X16 = 80 Marks)

11.	(a)	(i)	Write an algorithm and draw the flowchart for finding the sum of the numbers 2, 4, 6, 8, …, n.	(8)	2	U
		(ii)	Write the pseudocode to print the square root of the given number until the input number is zero.	(8)	2	U
			(OR)			
	(b)		Brief on organization and classification of computer.	(16)	2	U
12.	(a)	(i)	Design a grade sheet of the students based on following conditions: • 1. If mark <50 then Grade is F • 2. if mark >=50 <60 then Grade is D • 3. if mark >=60 <70 then Grade is C	(8)	4	U

- 4. if mark >=70 <80 then Grade is B
- 5. if mark >=80 <90 then Grade is A
- 6. if mark >=90 then Grade is A+

		(ii)	Write a C program segment to print out each character typed at a keyboard until the character 'q' is entered.	**(8)**	**4**	**U**
			(OR)			
	(b)		State and explain various identifiers in C language. Also, discuss about operator precedence in expression evaluation with a suitable example.	**(16)**	**4**	**U**
13.	(a)		Write a C Program to find Kth smallest element in an unsorted array.	**(16)**	**4**	**U**
			(OR)			
	(b)	(i)	Write a 'C' program to perform strcpy without using library function.	**(8)**	**4**	**U**
		(ii)	Elaborate on library functions available to perform string manipulation with suitable example.	**(8)**	**4**	**U**
14.	(a)	(i)	Write a recursive function to perform binary search on a set of sorted numbers.	**(8)**	**3**	**AP**
		(ii)	Write a C program to find the first repeating element in an array of integers.	**(8)**	**3**	**AP**
			(OR)			
	(b)	(i)	Brief on pointers arithmetic with suitable example.	**(8)**	**3**	**U**
		(ii)	Write a C program to perform one dimensional array rotation using pointers.	**(8)**	**3**	**U**
15.	(a)	(i)	What is a structure? Express a structure with data members of various types and declare two structure variables. Write a program to read data into these and print the same.	**(8)**	**3**	**AP**
		(ii)	Justify the need for structured data type.	**(8)**	**3**	**AP**
			(OR)			
	(b)	(i)	Develop a C Program to use the arrays inside union variables.	**(8)**	**3**	**AP**
		(ii)	Write a Union to store the name, account number and balance of customers (more than 10) and to print the names of all the customers having balance less than $200.	**(8)**	**3**	**AP**