SEE MODEL QUESTION PAPER

UG

First Semester B.E. Degree Examination, April - 2021

C Programming

Time: 3 hrs. **Course Code; 20CSE13** **Max. Marks: 100**

***Note: answer any Five full questions, choosing ONE full question from each module*.**

Q. No.		MODULE - 1	Marks
1	a	Explain basic structure of C program with an example.	8
	b	Define Datatype. Explain different types of primary datatype.	8
	c	Write a program that converts given temperature in Fahrenheit to Celsius using the conversion formula: $C=\frac{F-32}{1.8}$	4
2	a	Define Expression. Explain Bitwise and logical operators with an example.	10
	b	Explain different types of type conversions with an example.	6
	c	Evaluate the following expressions: i) 22+3<6 && !5 ||22==7 && 22-2>=5 ii) p+=(--p+5)*(p++)*(r/2), where p=7	4
		MODULE - 2	
3	a	Explain while statement with syntax and example. Write a program to check whether a given number is palindrome or not.	10
	b	An electricity board charges the following rates for the use of electricity: For the first 200 units : 80P per unit For the next 100 units: 90P per unit Beyond 300 units: Rs. 1.00 per unit All users are charged a minimum of Rs. 100 as meter charge. If the total amount is more than Rs. 400, then an additional surcharge of 15% of total amount is charged. Write a program to read customer id and number of units consumed and print out the charges with names.	10
4	a	Explain different types of Decision making with IF Statement with syntax and example.	10
	b	Write a program to read the age of 100 persons and count the number of persons in the age group 50 to 60. Use for and continue statements.	10
		MODULE - 3	
5	a	Define array. How to declare and initialize two dimensional array?	8
	b	Write a program to implement Selection sort.	7
	c	Define string. Explain declaration and initialization of a string.	5
6	a	Explain the following String Handling with syntax and example i) strcat() ii) strcmp() iii) strcpy() iv) strlen()	8
	b	Write a C program to count number of vowels, digits, blank space and special characters from the given string.	7
	c	Write a program to compare two strings without using built-in function.	5

		MODULE - 4	
7	**a**	Explain different categories of functions.	**8**
	b	Write a program to sort the elements by passing array as function argument.	**8**
	c	Define recursion with example.	**4**
8	**a**	Define pointer. Explain intializtion and Declaration of a pointer.	**8**
	b	Explain the diffrence between call by value and call by reference with an example.	**8**
	c	Write a program to add two numbers using pointers.	**4**
		MODULE - 5	
9	**a**	What is structure? Explain declaration, initialization and assigning value to structures with an example.	**10**
	b	Write a program to store and print name, USN, subject and IA marks of students using structure.	**10**
10	**a**	Explain fopen( ), putc( ), getc( ), fseek( ) and ftell( ) functions with syntax.	**10**
	b	Write a program to open a file named INVENTORY and store in it the following data: **ITEM NAME** **NUMBER** **PRICE** **QUANTITY** a 101 17.50 115 b 201 36.00 75 c 247 31.75 104 Extend the program to read this data from the file INVENTORY and display the INVENTORY table with the value of each item.	**10**

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