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 a general structure of C program with an example.	**8**
	b	What is a token? With example explain any four types of tokens available in C language.	8
	c	If originally x=2, y=3 and z=1; what is the value of each of the following expressions: i) x + 2 / 6 + y ii) y – 3 * z + 2 iii) z – (x + z) % 2 + 4 iv) x – 2 * (3 + z) + y	4
2	**a**	Explain relational and logical operators with examples.	8
	b	Define i) variable ii) constant iii) associativity iv) precedence	8
	c	Evaluate the following expressions i) 100%20 <= 20 -5+100/5+10-20 = = 5 >=1!=20 ii) a+=b*=c-=5 where a=3, b=5 and c=8	4
		MODULE – 2	

3	**a**	What is the output of the following program?
		#define product(x) (x*x)
		main() {
		   int i=3,j;
		   j=product(i+1);
		   printf("\n %d ",j);
		}
		
		What is the output of the following program?
		main()
		   float a=3.5;
		   switch(a) {
		      case 0.5 : printf("\n 0.5 ");
		      case 1.5 : printf("\n 1.5 ");
		      case 2.5 : printf("\n 2.5 ");
		      case 3.5 : printf("\n 3.5 ");
		    }
		}
			4

	b	Explain if-else, nested if-else and switch with syntax and example.	8
	c	Write a C Program to find the sum of individual digits of the number reducing it to a single digit. For example – if the number is 456; then the output should be 4+5+6=15; further this 15 should be reduced to 1+5=6.	8

4	**a**	What is the output f the following program?
		#define cube(p) p*p*p
		main(){
		   int k;
		   k=27/cube(3);
		   printf("\n %d",k);
		}
		
		What is the output f the following program?
		main() {
		   int x=1;
		   while(x==1){
		      x=x-1;
		      printf("\n x=%d",x);
		    }
		}
			4

	b	Explain the different types of loops in C with syntax and example.	8
	c	Write a C Program to find the occurrence of a particular digit in the given number. For example – if the number is 4565 and the digit is 5; then the output should be – Digit 5 occurs 2 times in the number 4565. Care should be taken to output if the digit does not occur in the number.	8

		MODULE - 3	
5	a	Write a C Program to sort N number of elements in an array using BUBBLE SORT algorithm.	10
	b	Explain the following string library functions with syntax and example. i) strlen()　　ii) strcpy()　　iii) strcmp()　　iv) strcat()	10
6	a	Write a C Program to read a sentence and print the frequency of each of the vowels and also the total number of consonants.	10
	b	What is an array? How a single dimension and two dimension arrays are declared and initialized?	10
		MODULE - 4	
7	a	Define recursion. Write a C program to find factorial of a number using recursion.	6
	b	Explain various components of function with example.	8
	c	What is a pointer? Explain how the pointer variable declared and initialized.	6
8	a	Define local and global variables. Explain with suitable example.	6
	b	Explain call by value and call by reference with example	8
	c	Write a C program to find the sum and mean of all elements in an array using pointers	6
		MODULE - 5	
9	a	Explain the following with syntax and example: i) Declaration of structure type ii) Declaration of structure variables iii) Accessing of structure variables.	10
	b	Write a program to accept the text from the keyboard and display it onto a file. Further read the contents of the file and display it on the monitor.	10
10	a	Explain array of structures. Write a C program to demonstrate array of structures.	10
	b	Explain following functions related to FILE HANDLING i) fopen()　　ii) fclose()　　iii) getc()　　　iv) putc()	10

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