Exam	Internal Assessment		
Level	BE	Full Marks	30
Program	BEI/ BCT	Pass Marks	12
Year/Part	I/I	Time	1.5 hrs

Subject: Computer Programming (CT 101)

✔ Candidates are required to give their answers in their own words as far as practicable.
✔ Attempt **All** Questions.
✔ The figures in the margin indicate **Full Marks**.
✔ Assume suitable data if necessary.

1.	In C programming, consider the following two scenarios: Scenario 1: Scenario 2: int arr[5]; char str[100]; scanf("%d", &arr[0]); scanf("%s", str); Why is the `&` operator used when reading input for an array of integers (`arr[0]`), but not when reading input for an array of characters (`str`)? Explain how the behavior of arrays and pointers in C relates to this difference.	[4]
2.	Write a program to take a list of values from user into an array. Pass the list to a function which sorts the values in ascending order.Display the sorted list from the main program.	[4]

3.	What is null pointer?What will be the output of the following program,explain.
	
	#include<stdio.h>
	
	int main()
	
	{
	
	if(!NULL)
	
	printf("C programming is easy!!");
	
	else
	
	printf("C programming is not easy");
	
	return 0;
	
	}
		[1+3]

4.	What do you mean by nested structures? Give suitable example. Write a program to read the heights of two students and display the difference between their heights.Use feet and inch as a member of structure to define height. OR Define the structures in C programming? Write a program using structure and passing the structure to the function that returns the result to convert the date(in format YY/MM/DD) in B.S to A.D.	[2+4]
5.	What is the purpose of 'w' and 'a' mode in text file? Write a program in C that creates a structure named VEHICLE with its member year and brand_name. Read 'n' number of vehicles information and write it to a file named vehicle.dat OR What do you mean by opening a data file? How is this accomplished ? Explain fprintf(),fscanf(),fread() and fwrite().	[6]

6.	Compare switch and if…else-if ladder with example.	[6]
	Write a program to print the following pattern:	

1 2 3 4 5 6 7 8 9

 1 2 3 4 5 6 7

  1 2 3 4 5

   1 2 3

    1

OR

Write a program to print the following pattern.

Programming

 rogrammin

 ogrammi

  gramm

   ram

    a