



Department of Electrical and Electronic Engineering

Level-1 Term-I

Term Final Examination, Spring-2022

Course Code: CSE-111

Course Title: Computer Programming I

Notes:

a. Each question carries 25 marks.

b. Figure on the right of each question indicates marks for the respective question.

Time: 3 hrs.

Full Marks: 150

PART-A

Answer any 03(three) from the following 04(four) questions

1. a) "All arithmetic operators do not have the same level of precedence in the C code"- justify the statement. 08
- b) Write a C program that takes a number from the user and displays if the number is even or odd by using *If-else*. 10
- c) Show the differences between variable and constant. 07
2. a) Write down the meaning of the following relational operators: 07

Relational Operator	Example of C condition
==	$x==y$
=	$x=y$
!=	$x!=y$
>	$x>y$
=>	$x=>y$
<	$x<y$
=<	$x=<y$

- b) Consider a case where a student got the following marks in his term final examination. Write a C code to find the final grade of this student using *switch-case*. 12

Given Numbers:

Course A: 87

Course B: 56

Course C: 79

Course D: 67

Course E: 83

Average Score	Grade
≥ 90	A
80-89	B
70-79	C
60-69	D
50-59	E
< 50	F



- c) Suppose you have the following code segment and input sequences. Find out the output of the program: 06

```
#include<stdio.h>
void main () {
int num, sum=0;
int i,n;
printf("Enter Number of inputs\n");
scanf("%d",&n);
for(i=1;i<=n;++i){
printf("Enter num%d: ",i);
scanf("%d",&num);
if(num==0) {
break;
printf("Loop Breaked\n");}
sum=sum+num;}
printf("Total is %d",sum);}
```

Input Sequence: 3 5 0 8 10

3. a) Write a C program to swap two variables without using a third variable 10
- b) Implement a C code to find the sum of all odd numbers from 1 to n. 10
- c) Why do we need the continue statement in a code segment? 05
4. a) Write a C code to implement the following pattern sequence. 10
- ```
*
**


```
- b) Show the differences between array index and array value. 05
- c) Write a program in C to display the cube of the number upto given an integer: 10

Test Data :

Input number of terms : 5

Expected Output :

Number is : 1 and cube of the 1 is :1

Number is : 2 and cube of the 2 is :8

Number is : 3 and cube of the 3 is :27

Number is : 4 and cube of the 4 is :64

Number is : 5 and cube of the 5 is :125



**PART-B**

**Answer any 03(three) from the following 04(four) questions**

5. a) Differentiate between call by value and call by reference. 08
- b) Consider a case where you are given 10 numbers to put into an array and then find out the average of the given numbers. Write a C code to find out the sum and average of the above-mentioned case. 10  
Test Data :  
Given Input: 1 2 3 4 5 6 7 8 9 10  
Average: 5.5
- c) Briefly explain why do we need an array? 07
6. a) Suppose you are given a number which is 4582. Write a C program to calculate the sum of the digits of the given number. 10  
Test Data :  
Given Input: 4582  
Output: 19
- b) Differentiate between while loop and do-while loop. 05
- c) Write a C code that will take an array and print them in reverse order. 10  
Test Data :  
Given array: 1 2 3 4 5  
Reverse array: 5 4 3 2 1
7. a) Write a program to find out the subtraction of two 2-D matrices. 15
- b) Briefly describe four categories of functions with proper example 10
8. a) How can we declare a user-defined function? Why do we need user-defined functions? 10
- b) Write a Program that uses a user-defined function named **SQUARE()** to calculate and print the area of a square 15