



বাংলাদেশ আর্মি ইন্টারন্যাশনাল ইউনিভার্সিটি অব সায়েন্স এন্ড টেকনোলজি (বিএআইইউএসটি), কুমিল্লা  
BANGLADESH ARMY INTERNATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY (BAIUST), CUMILLA

Department of Electrical and Electronic Engineering

Level-1, Term-I

Mid Term Examination, Spring-2023

Course Code: CSE 111

Course Title: Computer Programming I

Notes:

Time: 1 Hour

a. Each question carries 30 marks.

Full Marks: 60

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

Answer any two questions including question no.1

1. a. Describe the structure of a C program (05)

b. Explain the meaning of the following relational operators. You have to write the meaning of each row of 'Example of C condition' column. (5)

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

c. Write a program where you can take 2 number as input from user and print the value of addition, subtraction, multiplication and division. During division operation you have to print the value of both quotient and also remainder. (12)

d. Suppose you want to print some values and for that you have written following code: (8)

```
#include <stdio.h>
int main()
{
char a;
a = 10;
printf("Value of a is %d\n", a);
a = -100;
printf("Value of a is %d\n", a);
a = 127;
printf("Value of a is %d\n", a);
a = 128;
```

```

printf("Value of a is %d\n", a);
a = 140;
printf("Value of a is %d\n", a);
a = -127;
printf("Value of a is %d\n", a);
a = -128;
printf("Value of a is %d\n", a);
a = -200;
printf("Value of a is %d\n", a);
return 0;
}

```

Does the code show all the values correctly? If not, compare between which values will be shown correctly and incorrectly. Explain the reason.

2. a. Consider a case where a student got the marks in his term final examination. Write C code to find the grade of this student using **if-else** logic. (12)

**Given Numbers**

Course 1 : 87  
 Course 2 : 56  
 Course 3 : 79  
 Course 4 : 67  
 Course 5 : 83

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

- b. Write a C program to determine whether a given number is 'odd' or 'even' and print the message : (12)

'NUMBER IS EVEN' Or 'NUMBER IS ODD'.

- c. What will be the difference between the output of the following two code segments? Compare between these two and explain the reason for different output (6)

**Code Segment 1 :**

```

#include <stdio.h>
int main()
{
int n = 10;
if (n < 30) {
printf("n is less than 30.\n");
}
else if(n < 50) {
printf("n is less than 50.\n");
}
return 0;
}

```

**Code Segment 2 :**

```
#include <stdio.h>
int main()
{
int n = 10;
if (n < 30) {
printf("n is less than 30.\n");
}
if(n < 50) {
printf("n is less than 50.\n");
}
return 0;
}
```

3. a. What do you mean by looping? Mention the statements used in looping in C, and briefly explain while loop. (6)
- b. Implement a C code to find the sum of all odd numbers from 1 to n. (12)
- c. Implement a C code so that you can print a multiplication table like following : (12)

```
9*1=9
9*2=18
9*3=27
9*4=36
9*5=45
9*6=54
9*7=63
9*8=72
9*9=81
9*10=90
```

----THE END ---