



COURSE: (CL-1004) OBJECT ORIENTED PROGRAMMING LAB

LAB TASK # 3

NOTE:

Only submit .cpp file of each question in a folder. Anyone who submits any other format file will get straight **ZERO**. Each question should have a separate .cpp file. Copy Paste or other UFM will also get **ZERO**. Use the following format for naming the folder Roll#_Name (P18-1234_NAME).

Q No.01: Problem

Assume that you want to generate a table of multiples of any given number. Write a program that allows the user to enter the number and then generates the table, formatting it into 10 columns and 10 lines.

Problem (Output)

```
Enter a number: 2
```

2	4	6	8	10	12	14	16	18	20
22	24	26	28	30	32	34	36	38	40
42	44	46	48	50	52	54	56	58	60
62	64	66	68	70	72	74	76	78	80
82	84	86	88	90	92	94	96	98	100
102	104	106	108	110	112	114	116	118	120
122	124	126	128	130	132	134	136	138	140
142	144	146	148	150	152	154	156	158	160
162	164	166	168	170	172	174	176	178	180
182	184	186	188	190	192	194	196	198	200

Q No.02: Problem (Statement)

Create the equivalent of a four-function calculator. The program should ask the user to enter a number, an operator, and another number. (Use floating point.) It should then carry out the specified arithmetical operation: adding, subtracting, multiplying, or dividing the two numbers. Use a switch statement to select the operation. Finally, display the result.

When it finishes the calculation, the program should ask whether the user wants to do another calculation. The response can be 'y' or 'n'. Some sample interaction with the program might look like this:

Problem (Output)

```
Enter first number, operator, second number: 5 * 8
Answer = 40
Do another (Enter 'y' or 'n')? y

Enter first number, operator, second number: 5+3
Answer = 8
Do another (Enter 'y' or 'n')?
```

Q No.03: Problem –3 (Statement)

Write a C++ program that will display * in the following pattern:

Problem (Output)

```
*****
****
***
**
*
```

Q No.04: Problem –4 (Statement)

Suppose that x, y, and z are int variables, and x = 10, y = 15, and z = 20. Write a program that will print the output of the following:

1. $!(x > 10)$
2. $x \leq 5 \parallel y < 15$
3. $(x \neq 5) \&\& (y \neq z)$
4. $x \geq z \parallel (x + y \geq z)$
5. $(x \leq y - 2) \&\& (y \geq z) \parallel (z - 2 \neq 20)$

Q No.05: Problem –5 (Statement)

In a company, there are deductions from the salary of the employees for a fund. The deductions rules are as follows:

- If salary is less than Rs.10,000 then no deduction
- If salary is equal to or more than Rs.10,000 and less than Rs.20,000 then deduct Rs.1,000 as fund
- If salary is equal to or more than 20,000 then deduct 7 % of the salary for fund
- Input salary from user and after appropriate deduction show the net payable amount.