

CL1002 – Programming Fundamentals Lab

Quiz # 01

Difficulty level: ★☆☆☆☆

Note:

- Submit a pdf containing all your C code with all possible screenshots of every task output on Google Classroom.
- Please submit your file in this format (roll-no-name) i.e. (22P-8743-Zain.pdf).

Problem: 1

Write a program that prints the following patterns using single printf statement.

| Output |
|------------------------------------|
| <pre> * *** ***** *** *</pre> |

Problem: 2

Write a C program that calculates the kinetic energy of an object using the formula:

$$KE = \frac{1}{2} \times m \times v^2$$

Where:

- KE represents kinetic energy.
- m represents the mass of the object in kilograms.
- v represents the velocity of the object in meters per second.

Your program should prompt the user to enter the mass (in grams) and velocity (in meters per second) of an object. Convert mass in grams to kilogram. Then, it should calculate and display the kinetic energy of the object.

Provide the code for this program and a sample output for a mass of 550 g and a velocity of 10 m/s.