NETTUR TECHNICAL TRAINING FOUNDATION
COMMON FOR ALL PROGRAMMES
I SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JAN 2023

Subject: Applied Science **Total Time: 2 Hr.**
Subject Code: CP00103T **Total Marks: 50 Marks**

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING **2*8=16**

1.1 Name the 3 systems of units.
1.2 What do you mean by linear motion?
1.3 How much energy does a 60 W bulb consume per second?
1.4 What are the three methods to find the resultant force?
1.5 What is moment of a force?
1.6 Write two ways of increasing and reducing friction
1.7 What is the significance of Moment of Inertia?
1.8 Write down various instruments used to measure temperature (any 2)
1.9 What are batteries? Name the different types of batteries
1.10 Name the two types of wind turbine

2.0 ANSWER ANY SIX OF THE FOLLOWING **3*6=18**

2.1 Write the prefixes of the following:
a)10^{3} b)10^{-3} c)10^{6} d)10^{-6} e)10^{9} f)10^{-9}
2.2 State the law of conservation of energy
2.3 What do you understand by couple of force? Explain with neat sketch
2.4 Write down the three equations of motion
2.5 Explain the terms Stress and strain
2.6 How is the temperature difference measured via a thermocouple sensor? Explain with neat sketch
2.7 What are the necessary conditions for rusting?
2.8 Write the difference between centroid & Centre of gravity

3.0 ANSWER ANY FOUR OF THE FOLLOWING **4*4=16**

3.1 Write the Newton's three laws of motion
3.2 What are the types of friction? Explain with example
3.3 Explain the different systems of forces
3.4 Explain Young's Modulus, Bulk Modulus, and Rigidity Modulus
3.5 Write a short note on different modes of heat transfer methods
3.6 What are the various factors to be considered when selecting a battery?