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**School of University Polytechnic**

Diploma in Mechanical Engineering

Mid Term Examination - Nov 2023

Duration : 90 Minutes

Max Marks : 50

**Sem III - N1DL301B - Applied Mechanics**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Write the force law of equilibrium. K2 (2)
- 2) Define space and matter. K1 (3)
- 3) Define moment law of equilibrium. K2 (4)
- 4) Define general conditions of equilibrium. K2 (6)
- 5) Explain the reactions at supports and connections. K3 (6)
- 6) Explain the law's of equilibrium. K3 (9)
- 7) Investigate the application of newton's law. K4 (8)
  
- 8) Investigate the principles of physical independence of forces. K4 (12)

**OR**

State the properties of a couple. K4 (12)