M.Sc. DEGREE EXAMINATION,ODD SEMESTER 2020
II Year III Semester
Classical Mechanics

Max.marks :25

Answer any **FIVE** questions $(5 \times 5 = 25)$ Marks

1. Derive D'Alembert's principle.

2. Discuss the problem of finding the shortest distance between two points in a plane.

3. Define Coriolis force and explain its role with an example.

4. Obtain an expression for moment of inertia about the axis of rotation from inertia tensor.

5. Derive the principle of least action.

6. Explain the lagrangian formulation in the Atwood's machine.

7. Discuss Legendre transformation.