

**U. G. 1<sup>st</sup> Semester Examination- 2021**

**PHYSICS**

**[Programme]**

**Course Code- PHY-G-CC-P1**

**[PRACTICAL]**

**(Mechanics)**

Full Marks: 20

Time- 2 hr

*Answer any two from the following questions*

1. How does we calculate gravitational acceleration (g) using Kater's Pendulum? What is the difference between a simple pendulum and a compound pendulum?

8+2

2. What is vernier constant? How does it calculate? What is screw pitch? What is least count? Write down the working formula to calculate Young's modulus (Y) of a bar.

2+2+2+2+2

3. What are meant by 'moment of inertia' and 'radius of gyration'? Will the moment of inertia be different if the axis of rotation changes? Write the formula to calculate moment of inertia of a solid cylinder and a solid rectangular bar.

4+2+2+2