

U.G. 1st Semester Examination - 2020

PHYSICS

[PROGRAMME]

Course code : PHY-G-CC-P-01 (MECHANICS)

PRACTICAL

Full Marks : 20

Time : 2 Hours

Answer any **two** questions from the following :

1. Define gravitational field and gravitational potential. Write down Kepler's laws of planetary motion. Define refractive index. Write down the value of the refractive index for water. (4+3+2+1)
2. Define Moment of Inertia and radius of gyration. What is the unit of Moment of inertia ? State Hooke's law and define Young's Modulus. Write the working formula for finding rigidity modulus. How does the value of rigidity modulus depend on the length and the diameter of the wire ? (3+1+2+2+2)
3. Define coefficient of viscosity. Write down Stokes law of viscosity. Write about the procedure and related theory used to measure the coefficient of viscosity by Stoke's method. (2+3+5)