

UG 3rd Semester Examination 2021

PHYSICS

Course Code: PHY-H-GE-P-01

[PRACTICAL]

(Mechanics)

Full Marks : 20

Time : 2 Hours

The figure in the right-hand margin indicates marks

Answer any four questions:

(5x4 = 20)

1. What is the minimum distance that can be measured by travelling microscope ? How can you measure the radius of a tube using travelling microscope? 1+4
2. What does Young's modulus depend on? Does stress depends on Young's modulus? Which one between L and d to be measured cautiously in this experiment and why ? 2+1+2
3. What is a sextant? How can the height of a building be determined by it? 1+4
4. What is inertia? Describe an experimental setup to determine the moment of inertia of a flywheel. 1+4
5. How can the modulus of rigidity of a wire be determined by Maxwell's needle? 5
6. How can you determine the elastic constant of a wire by Searle's method? 5
7. What do you mean by a bar pendulum? How it can be used to determine 'g'? 1+4
8. How you can determine 'g' (acceleration due to gravity) by Kater's pendulum? Why is this called reversible pendulum ? 1+4
9. By studying the motion of a spring how you can calculate spring constant and 'g'? 5