UG 5TH Semester Examination 2022

PHYSICS[PROGRAMME COURSE]

Course Code PHY-G-DSE-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 vernier constant? Describe the working principle of a travelling microscope.
2. Give the working principle of a sextant. How can the height of a building be determined with it?
3. Describe an experimental technique to determine the moment of inertia of a flywheel.
4. Describe the working principle of an optical lever. How can the Young's modulus of a wire be determined using this technique?
5. What is Maxwell's needle? How can the modulus of rigidity of a wire be determined with it?
6. Describe Searle's method to find the elastic constants of a wire.
7. How can the acceleration due to gravity 'g' be determined by a bar pendulum?
8. How can the acceleration due to gravity 'g' be determined by a Kater's pendulum?
9. Describe an experimental technique to study the motion of a spring and eventually calculate the spring constant.