

SECTION - B (5 X 5 = 25 Marks)

SEMESTER EXAMINATIONS - NOVEMBER - 2018

SEMESTER EXAMINATIONS, NOVEMBER - 2018

SEMESTER I

⑤

Maximum: 75 Marks

CONCLUSIONS

ation for theory of banding of beams

- b) Calculate the work done in twisting a wire.
- a) Derive an expression for an internal bending moment of a bar.
(Or)
- b) State the basic assumption for theory of bending of beams.
- a) Obtain an expression for the excess of pressure inside (i) a spherical soap bubble and (ii) a spherical liquid drop.
(Or)
- b) Explain the variation of viscosity with temperature and pressure.
- a) Explain in brief about the superposition of waves.
(Or)
- b) Describe the average kinetic energy of vibrating particle.
- a) Define Intensity and Loudness of sound and write down distinctions between them.
(Or)
- b) Explain how ultrasonic waves are produced in a magnetostriction oscillator.

SECTION - C (3 X10 = 30 Marks)

Answer **ANY THREE** Questions.

16. Derive the relation between elastic constants.
17. Describe with relevant theory, an experiment to determine Young's modulus of a bar by cantilever depression method.
18. Describe Jaeger's method of studying the variation of Surface tension of water with temperature.
19. What are damped oscillations? Discuss analytically the motion of a particle executing damped simple harmonic oscillation.
20. Define the reverberation time. Derive Sabine's formula for reverberation time. Explain its significance.
