

MELVISHARAM - 632 509.

SEMESTER EXAMINATIONS, NOVEMBER - 2018

SEMESTER I

U15MPH101 - PROPERTIES OF MATTER AND ACOUSTICS

Maximum: 75 Marks

Answer **ALL** Questions.

- SECTION - B (5 X 5 = 25 Marks)

Answer ALL Questions.

- R18603

b) Explain the construction and working of rotary pump.

13. a) Write a short note on Interference and Superposition of waves.

b) State and explain the Fourier theorem.

14. a) Explain the working of NDT (Non-destructive testing) method.

b) Describe the determination of velocity of ultrasonic waves in a liquid.

15. a) Write the conditions for a good acoustical design of an auditorium.

b) How will you measure the intensity of Sound? Explain.

SECTION - C (3 X 10 = 30 Marks)

Answer ANY THREE Questions.

16. Describe Koenig's method for the determination of Young's Modulus of a beam by non-uniform bending method.
17. Describe the Jaegar's method of studying the variation of surface tension of water with temperature.
18. What are damped vibrations? Derive the differential equation of damped oscillatory motion and give its general solution.
19. Explain the principle of Magnetostriction method of producing Ultrasonics.
20. Derive Sabine's formula for reverberation time. Explain its significance.
