

S.B. Roll No.....

APPLIED PHYSICS-I
1st Exam/Common/5752/Feb'2021
(For 2018 batch onwards)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- i. Write advantages of SI system of units
- ii. Write differences between Scalar Vector quantities
- iii. Write short note on Banking of Roads
- iv. Friction is necessary Evil. Explain Why?
- v. Define Kinetic Energy. Derive expression for it.
- vi. State and prove Law of conservation of angular momentum
- vii. State and explain Stoke's law.

SECTION-B

Q2. Attempt any one question.

1x10=10

- a. If velocity (V) of sound in medium depends on its Elasticity (E) and Density (d). Derive the relation for velocity of sound by method of dimension.
- b. State and prove Principle of conservation of linear momentum.
- c. Show that for a freely falling body, Total mechanical energy remain constant.
- d. Derive relation between Co-efficient of linear (α), Surface (β) and Cubical (γ) expansions.