Engineering Physics-I
Important 10 Mark questions

Unit I

1. Derive the expressions for the magnitude and directions of the resultant of two forces acting at a point with an acute angle.
2. Derive an expression for the maximum height and time of flight of the projectile.
3. Describe an experiment to verify the Lami's theorem.

Unit II

1. Describe an experiment to determine the co-efficient of viscosity of a high viscous liquid by Stoke's method.
2. Describe an experiment to determine the Young's modulus of the material of a beam by uniform bending method.
3. Describe an experiment to compare the coefficient of viscosities of two liquids.

Unit III

1. Derive an expression for the angle of banking of a curved railway track.
2. Describe an experiment to determine the mass of the given body using principle of moments.
3. Prove that the path of projectile is a parabola.

Unit IV

1. Obtain an expression for the variation of acceleration due to gravity with altitude.
2. Derive an expression for the kinetic energy of the rigid body rotating about an axis.
3. Derive an expression for the orbital velocity of a satellite.

Unit V

1. Describe the experiment to determine the frequency of a tuning fork using sonometer.
2. Explain the uses of hysteresis loop.
3. Explain the method of drawing hysteresis loop of a specimen taken in the form of a rod, using solenoid.