

Ln-1 (5 Marks):

1. Triangulation method & parallax method (Pg 13)
2. Types of error (Pg 20)
3. Types of error analysis (Pg 22)
4. Propagation of error derivation (Add, Sub, Multiply, Division) (Pg 23-25)
5. Rules for counting off and significant figure (Pg 28)
6. Principle of homogeneity (def) (Applications & Limitation)
7. All the problems

Ln-2

1. Properties of scalar and vector (Pg 53, 56)
2. Triangle law of addition (Pg 48)
3. Equation of motion by calculus method (Pg 76)
4. Horizontal projection (Pg 82-84)
5. Angular projection (Pg 84-86)
6. Falling vertically, projected vertically (Pg 77, 80)

Ln-3

1. Motion of block (vertical motion, horizontal motion) (Pg 126)
2. Law of conservation of linear momentum with example (Pg 130, 132) (gun example)
3. Difference between static friction and kinetic friction (Pg 140)
4. Push or pull, Angle of friction, Angle of repose (Pg 140-142)
5. Banking of tracks (Pg 152)
6. Similarities and difference between centripetal and centrifugal forces
7. State Newton's three laws and discuss their significance
8. What are the concurrent forces? State lami's theorem.
9. Particle moving in a inclined plan

Ln-4

1. Workdone by a constant and variable force (Pg 170, 172)
2. Work-Kinetic energy principle (Pg 174)  
Relation between Momentum and Kinetic energy
3. Derive elastic potential energy (Pg 178)
4. Difference between conservative forces and non-conservative forces (Pg 182)
5. Vertical circle (Pg 187)
6. Relation between power and velocity (Pg 192)
7. Derive Elastic collision in one dimension (Pg 194)
8. Difference between Elastic and inelastic collision (Pg 192)
9. Inelastic collision (Pg 199) and define coefficient of restitution (Pg 200)

Ln-5

1. Uniform Ring (Pg 236)
2. Uniform disc (Pg 236)
3. Uniform rod (Pg 234)
4. Parallel axis theorem
5. Perpendicular axis theorem
6. Bending of cyclist (Pg 232)
7. Types of equilibrium (Pg 228)
8. Rolling on inclined plane (Pg 256)
9. Derive Kinetic energy in rotation (Pg 249)

Relation between

1. Torque and angular acceleration (Pg 224)
2. Angular momentum and Angular velocity (Pg 226)
3. Torque and Angular momentum (Pg 226)
4. Kinetic energy and angular momentum (Pg 249)
5. Power and velocity (Pg 192)
6. Momentum and Kinetic energy (Pg 175)

Ln-1 (2 Marks)

1. Define physical quantity (Pg 7)
2. Types of physical quantities (Pg 7)
3. Define unit (Pg 8)
4. Different types of measurement systems (Pg 8)
5. Define Radian and Steradian (Pg 11)
6. Accuracy and precision (Pg 19)
7. How to minimize Random error and Systematic error (Pg 21)
8. Limitations of dimensional analysis (Pg 32)
9. Dimensional variables, Dimensionless variables, Dimensional constant, Dimensionless constant (Pg 32)

Ln-2

1. Types of motion (Pg 43)
2. Define scalar and vector with examples (Pg 46)
3. Different types of vectors (all types) (Pg 46, 47)
4. Define scalar product (Pg 53)
5. Define vector product (Pg 55)
6. Distance and displacement (Pg 60, 61)
7. Average velocity and Average speed (Pg 65, 66)
8. Instantaneous velocity (Pg 66)
9. Right hand rule (Pg 55)
10. Momentum (Pg 68)
11. Average acceleration and Instantaneous acceleration (Pg 73)
12. Projectile & Trajectory with examples (Pg 81)
13. Time of flight (Pg 82)
14. Angular velocity, displacement, acceleration (Pg 89)

Ln-3

1. Newton's first, second, third law with formula
2. Define one newton (Pg 109)
3. Concurrent force and Lami's theorem (Pg 129)
4. Law of conservation of Linear momentum (Pg 131)
5. Define Impulse with formula (Pg 133)
6. Static and Kinetic friction (Pg 139)
7. Angle of friction (Pg 141)
8. Types of friction and methods to reduce friction (Pg 145)

9. Define centripetal force (Pg 148)
10. Under what condition will a car skid on a leveled circular road?
11. Why does a parachute descend slowly?

Ln-4

1. Define work (Pg 167)
2. Kinetic energy and potential energy (Pg 173)
3. Types of potential energy (Pg 176)
4. Define elastic potential energy (Pg 178)
5. Define conservative force and non-conservative force with example (Pg 181)
6. Difference between conservative and non-conservative force (Pg 182)
7. Law of conservation of energy (Pg 184)
8. Define power and average power (formula and unit) (Pg 190)
9. Define Elastic collision and Inelastic collision (Pg 193)
10. Difference between Elastic collision and Inelastic collision (Pg 194)
11. Coefficient of restitution (Pg 200)

Ln-5

1. Centre of mass (Pg 209)
2. Torque with unit (Pg 217)
3. Example for Torque in day to day (Pg 217)
4. Define Angular momentum (Pg 224)
5. Conservation of Angular momentum (Pg 227)
6. Couple (Pg 230)
7. Principle of moment
8. Center of gravity (Pg 231)
9. Parallel axis theorem & define perpendicular axis theorem (Pg 240)
10. Radius of gyration (Pg 237)
11. Difference between Translational motion and Rotational motion (Pg 250)
12. Condition for pure rolling
13. Difference between slipping and sliding (Pg 253)