

Mechanics Theory Questions

Unit-I

Unit-IV

1. Explain Moment of force - 3
2. Triangle law of forces example - 6
3. Varignon principle of moments - 3
4. Force system and classification - 6
5. Force and its characteristics - 2
6. Law of transmissibility of force - 3
7. Mass and Weight, space, time - 3
8. Law of parallelogram of force -
9. Law of polygon of force
10. Scalar and vector quantities
11. Fundamental and derived units SI units
12. flexible and rigid body
13. Resolution and Composition of force
14. Bow's notation

Unit - II

1. Types of Beams - 5
2. Types of supports of Beam - 6
3. Types of loads on Beam - 3
4. Lami's theorem - 2
5. Conditions of equilibrium - 3
6. What is equilibrium.

Unit III

1. Define Co-efficient of friction - 3
2. Static and dynamic friction - 3
3. Laws of static friction - 6
4. Coefficient of friction VS angle of friction - 3
5. Advantages and disadvantages of friction - 3
6. Angle of repose
7. Limiting friction
8. relation between coefficient of friction and angle of friction

Unit IV

1. Centre of gravity VS Centroid -3
2. Centre of gravity -3
3. Centroid -3

Unit V

1. Mechanical Advantage
2. Velocity Ratio
3. Efficiency of machine
4. Reversibility of machine conditions
5. Load and effort
6. Law of machine
7. Ideal machine
8. Maximum Mechanical Advantage
9. Maximum Efficiency