

PES University

Department of Civil Engineering

B.Tech – 1st Semester

Subject : Engineering Mechanics

Unit:1 – Force System

Assignment

1	Explain the terms: a) Space b) Time c) Mass d) Force e) Particle f) Rigid Body
2	Explain the difference between Scalars and Vectors.
3	Explain the terms a) Free Vector b) Sliding Vector c) Fixed Vector
4	Explain the terms (with sketches) a. Collinear Forces b. Coplanar Forces c. Concurrent Forces.
5	What are (Explain with Sketches) a) Rectangular Components of a Force b) Components of a Force c) Projections of a Force
6	Explain the Transmissibility of a force with a neat sketch.
7	Define Force and State its Characteristics.
8	Explain the term Moment of a force with neat sketch
9	State and Prove the Varignon's theorem/Principle of Moments.
10	What is Couple?
11	Define the term Couple and State its Characteristics.
12	Explain the term Force –Couple System with the help of neat sketch.

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