

HOME ASSIGNMENT

Semester-IV

Subject- Mathematics(Major) (Mechanics)

Marks: 15

1. What do you mean by central axis for a system of forces? Is it unique? What is wrench? 2 + 1 + 1 = 4
2. Equal forces act along the axes and along the straight lines

$$\frac{x - \alpha}{l} = \frac{y - \beta}{m} = \frac{z - \gamma}{n}$$

Find the equation of the central axis of the system. 6

3. Find the centre of gravity of a segment of a circle that subtends an angle 2α at the centre. 5
