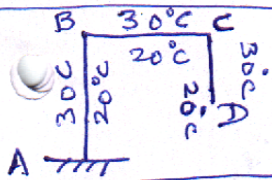
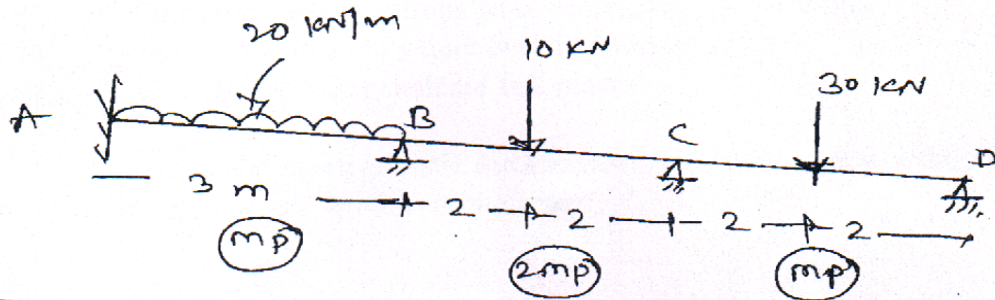


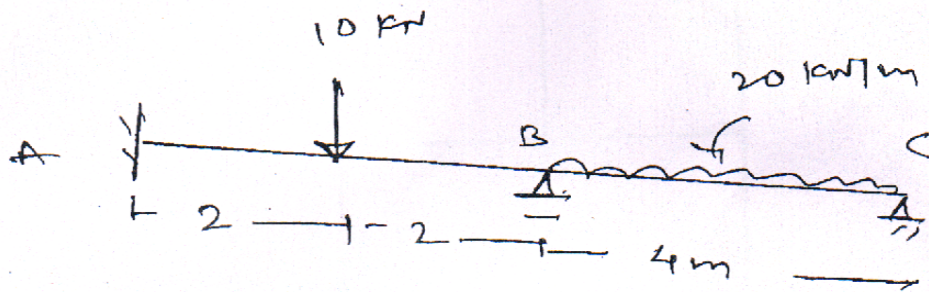
SA-II

6. (a) Determine the plastic moment capacity for the beam as shown in fig. take Load factor 1.5 14



- (b) For the rigid Jointed frame as shown in fig. Det. horizontal deflection at D, Assume $\alpha = 12 \times 10^{-6}/^{\circ}\text{C}$ and depth of all members as 400 mm. Neglect the effect of axial forces. $l_{AB} = 4\text{m}$; $l_{BC} = 3\text{m}$; $l_{CD} = 2\text{m}$. 6

7. (a) Analyse the beam by three moment theorem and draw BMD. 12



Take EI - constant.

- (b) A two hinged parabolic arch of span 30 m and rise 5 m carries u.d.l. of 20 kN/m on left half span find reactions at supports and draw BMD. 8