

Que → 1. Explain HART'S mechanism? (5)

(a) Explain steering mechanism and also explain Davis steering mechanism? (5)

Que → 2 Explain Cone Clutch? (5)

(a) Derive an expression of flat pivot bearing? (5)

Que → 3 Derive an expression of friction of a body lying on an inclined plane? (5)

(b) A single plate clutch, effective on both sides, is required to transmit 25 kW at 3000 rpm. Determine the outer and inner radii of frictional surface if the coefficient of friction is 0.255, the ratio of radii is 1.25 and the maximum pressure is not to exceed 0.1 N/mm^2 . Also determine the axial thrust to be provided by springs. (5)