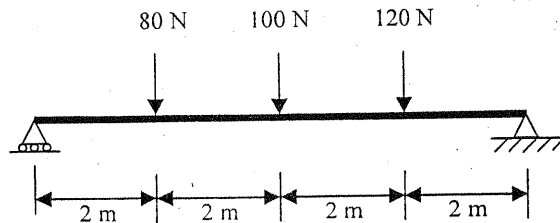


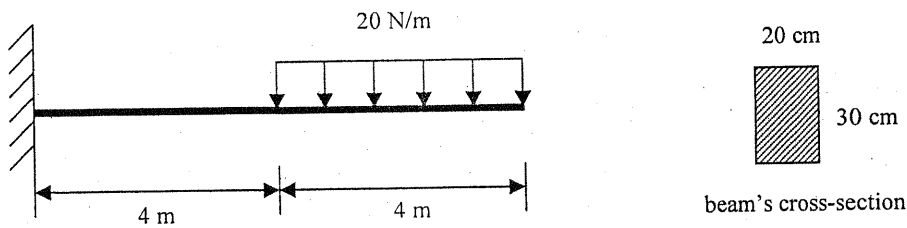
科目	材料力學	適用系所	航太與系統工程學系固力組	時間	100 分鐘
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※請務必在答案卷作答區內作答。 共 2 頁第 1 頁

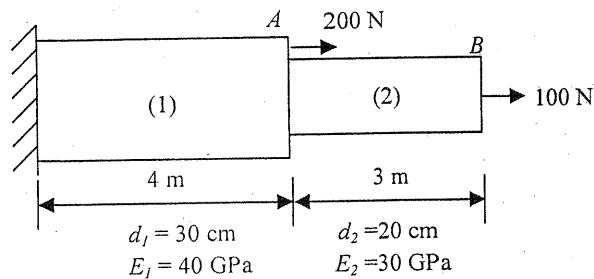
1. Draw the shear force (V) and bending moment (M) diagrams of the beam. (20%)



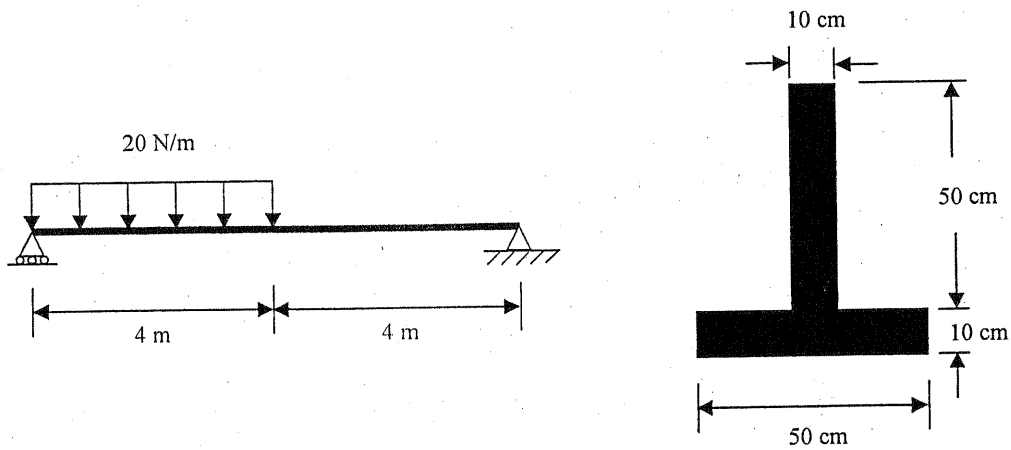
2. Find (a) the maximum normal stress σ_{\max} , (b) the maximum shear stress τ_{\max} in the beam. (20%)



3. A beam is composed of two sections. In the figure, E is the modulus, and d is the diameter. Find the displacement of the point B . (20%)



4. A beam is subjected to a distributive load, as shown below. The beam has a T-shaped cross-section. Find the (a) maximum tensile stress, (b) maximum compressive stress in the beam. (20%)



5. A cantilever beam is fixed at point $x=0$. The beam is under a uniform distributive load q . Find the deflection curve $v(x)$ of the beam, expressed in terms of E , I , L , q and x . (20%)

