

Q:1) Determine the magnitude and direction of the smallest force F_3 so that the resultant force of all three forces has a magnitude of (100 N). see Fig.(1). [10 Mark]

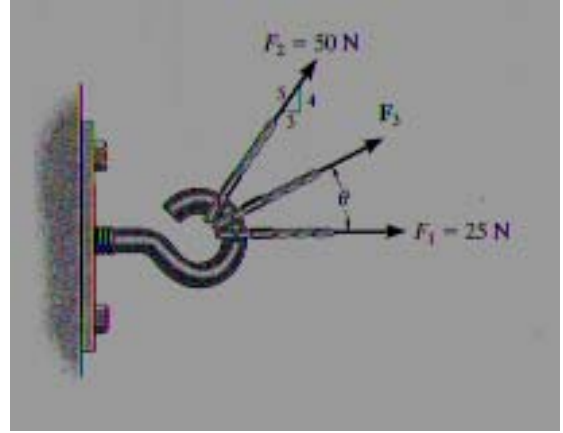


Fig.(1)

Q:2) Determine the moment of the force [3 kN] about point O by **at least any three way**. See Fig.(2).

[15 Mark]

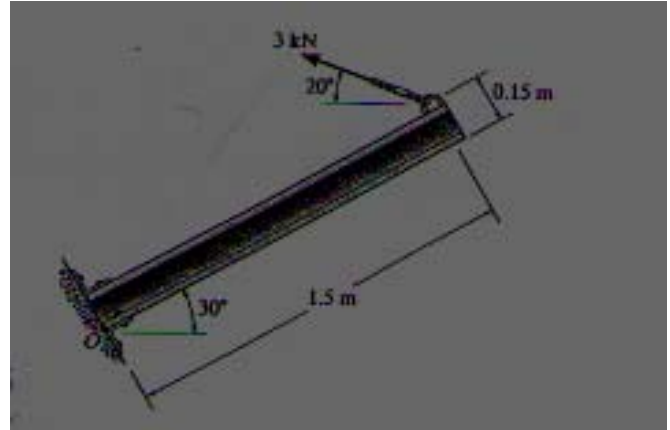


Fig.(2)

Q:3) For the member shown in Fig (3), determine the reaction components at the fixed support (at point A) [15 Mark]

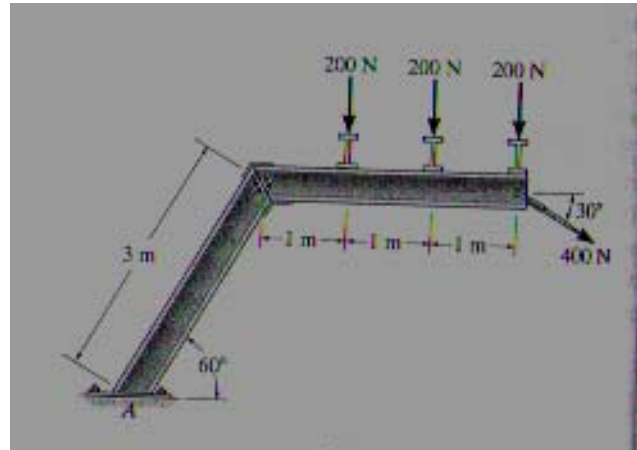


Fig.(3)

Q:4) Using the parallel axis theorem , determine the M.O.I for the cross – sectional area shown in Fig(4). About its (X-axis And centroidal X- axis) [20 Mark]

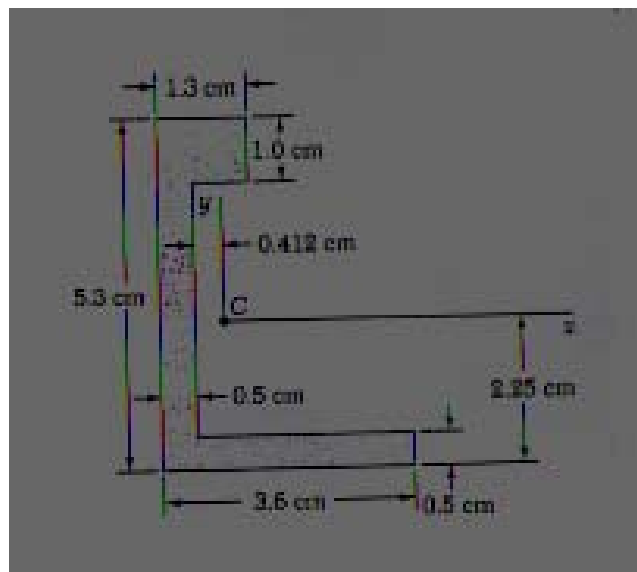


Fig.(4)

رئيس القسم

م.د

مدرس المادة:

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