Kafrelsheikh University
Faculty of Engineering
Department of Civil Engineering
Arch. Dept., 2nd year, Theory of structures
Dr. Magdy Israel Salama

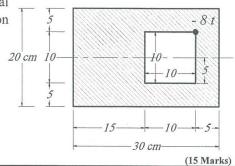


Date: 28-5-2016 Time allowed: (3) hours Full Mark: 55 Second term Exam: 1 page

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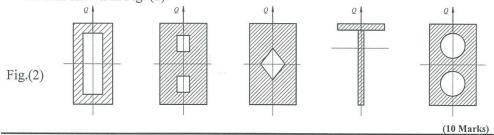
## Answer as much as you can

1- Locate the neutral axis and plot the normal stress distribution across the cross section shown in Fig. (1).



2- Without any calculation, plot the shear stress distribution diagrams for the cross-sections shown in Fig. (2).

Fig.(1)



3- Using the <u>method of consistent deformation</u> [force method], draw N.F, S.F. and B.M.Ds. for the beam shown in Fig. (3). EI = Constant

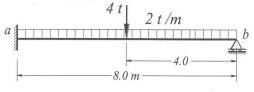
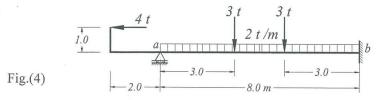


Fig.(3)

(15 Mark)

4- Using the three moments equation method, draw N.F., S.F. and B.M.Ds. for the beam shown in Fig. (4).



Best Wishes: Dr. Magdy Israel

(15 Marks)