Menoufia University

Faculty of Engineering, Shebin El-Kom

Civil Eng. Department

First Semester Examination, 2013-2014

Date of Exam: /1/2015



Subject: Elective Course - Steel

Code: CVE415A

Year : Fourth Year-Civil Time Allowed : 3 hours Total Marks : 60 marks

Answer the following questions

Clean Sketches and Proper Calculations are strictly required Question 1 [15 marks]

Marks [60 Marks]

1- Sketch with scale 1:100 the horizontal and vertical bracing for Structure steel building Span = 5m, length 48m, has frame spacing 6m. If height of

frame spacing 6m. If height of column=6m & slope of main rafter [beam] 1:10 as shown

in figure.

Question 2 [25 marks]

- 2- For shown connection with given straining action Design:
 - a) The main column with height=8m prevented from movement at mid span out of plan with fixed end.
 - b) The cant. At connection.
 - c) The bolted connection (plate, diameter & spacing of bolts, grade of bolts) at connection [A]
 - d) Draw the main connection with full detail with scale 1:10

Question 3 [20 marks]

- 3- Design the composite simple beam carrying moment from D.L.=moment from L.L = 12 t.m for with span =7m, Spacing = 1.5m & R.C. slab thick.= 10cm for :
 - a) Shoring structure.
 - b) Unshoring Structure.

Best wishes

