# SHEETS— CT 112

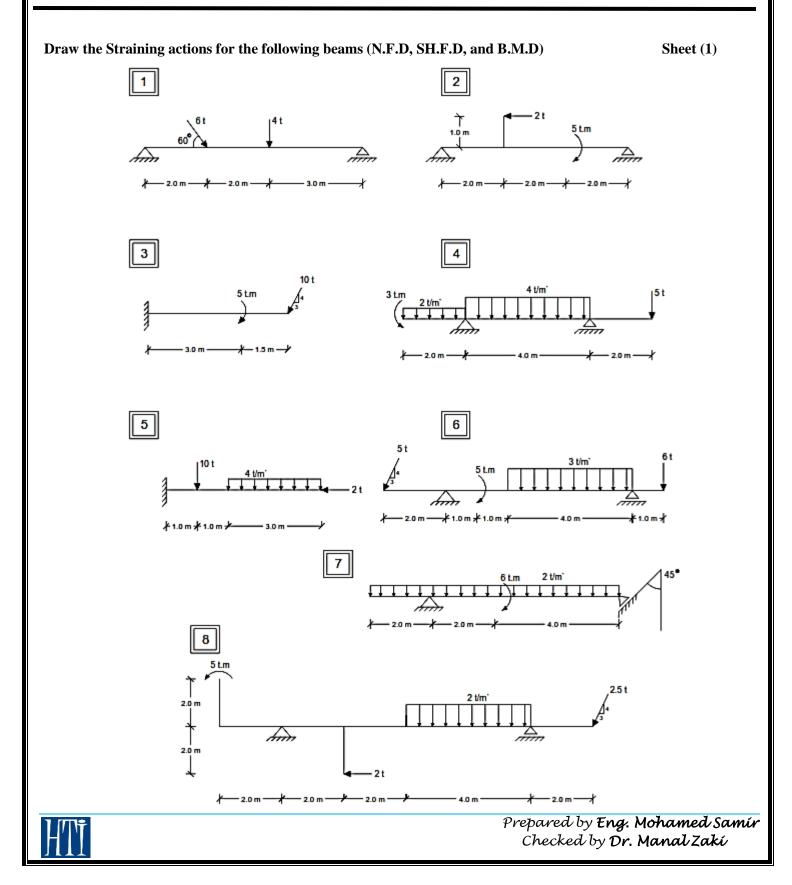
## **Structure Analysis (II) For Civil Department**





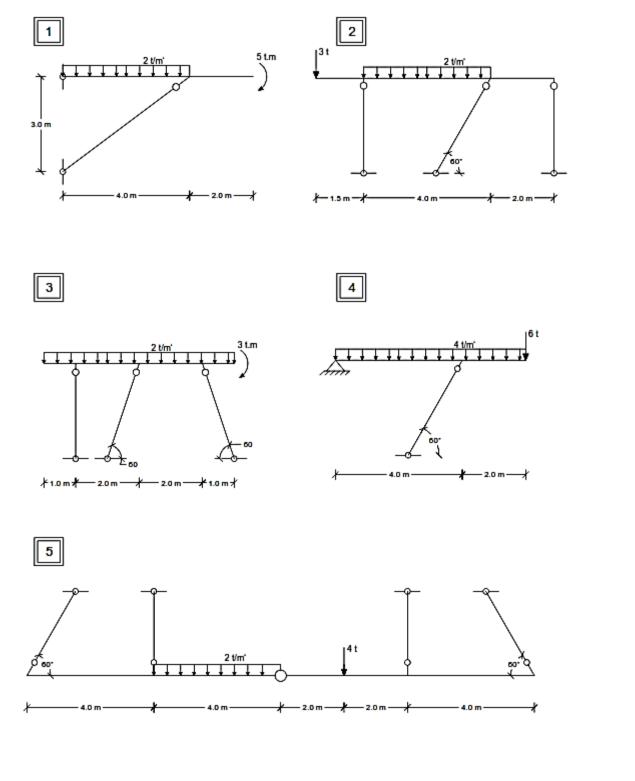


Structure Analysis (II) – CT-112 Beams & Beams with cantilever Sheet (1) – part (1) – page 1/1





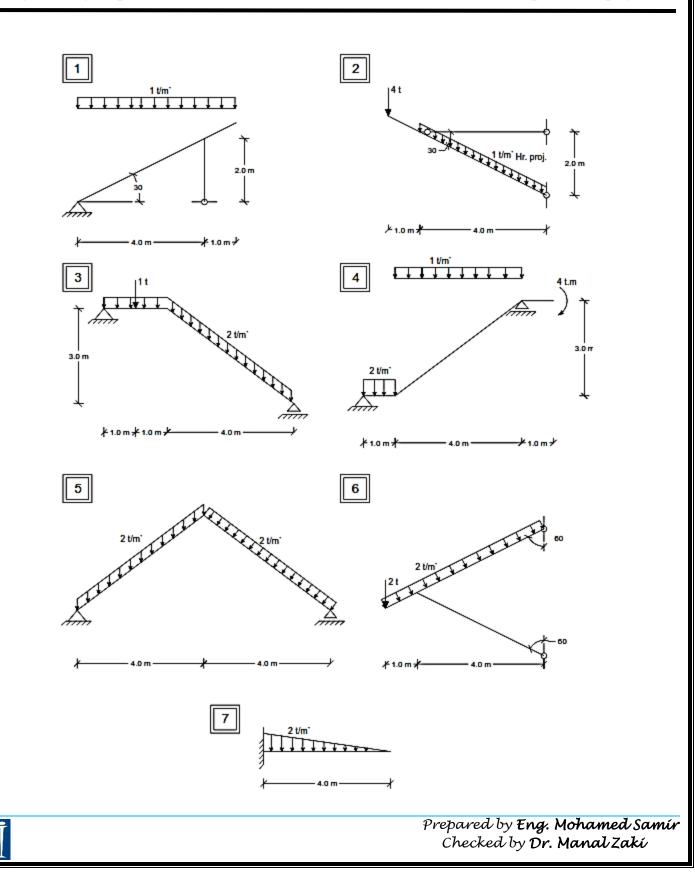
Structure Analysis (II) – CT-112 Beams on links Sheet (1) – part (2) – page 1/1





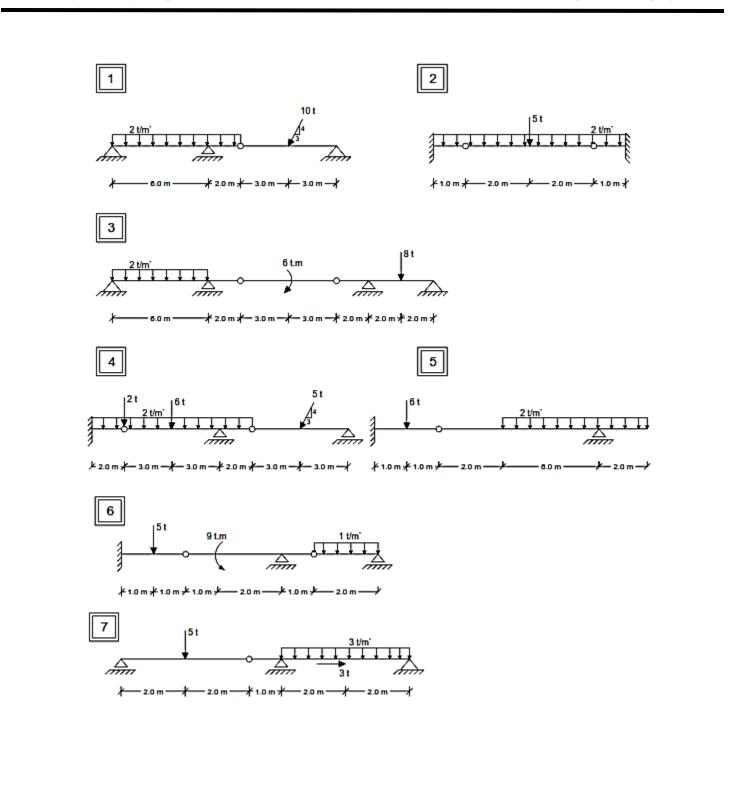


Structure Analysis (II) – CT-112 Inclined Beams Sheet (1) – part (3) – page 1/1





Structure Analysis (II) – CT-112 Beams with internal support Sheet (1) – part (4) – page 1/1

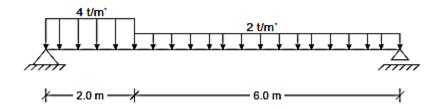


HTT

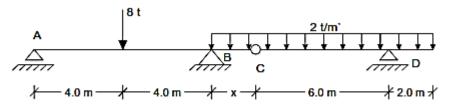


Structure Analysis (II) – CT-112 Maximum Moment location Sheet (1) – part (5) - page 1/2

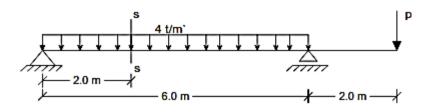
1- Find analytically the point of maximum moment and compute the value of the moment of this point?



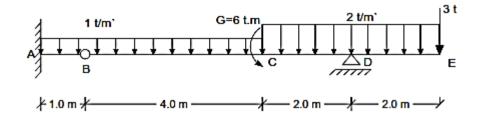
2- Find the value of the distance x such that the maximum positive and the negative bending moments are equal. Hence draw action diagrams?



3- Find the value of (P) such that the maximum positive moment occurs at section S.S. Hence draw action diagrams?



- 4- For the following beam:-
  - Draw S.F.D & B.M.D.
  - Determine the magnitude and dir. Of the couple (G) such that max. Positive moment equal max negative moment in part BCDE.

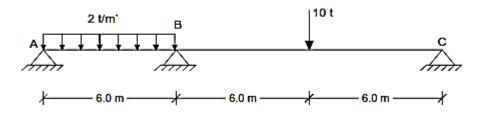






Structure Analysis (II) – CT-112 Maximum Moment location Sheet (1) – part (5) - page 2/2

5- Draw S.F.D & B.M.D for the shown statically indetermine beam given that B.M. at B = -10 t.m.

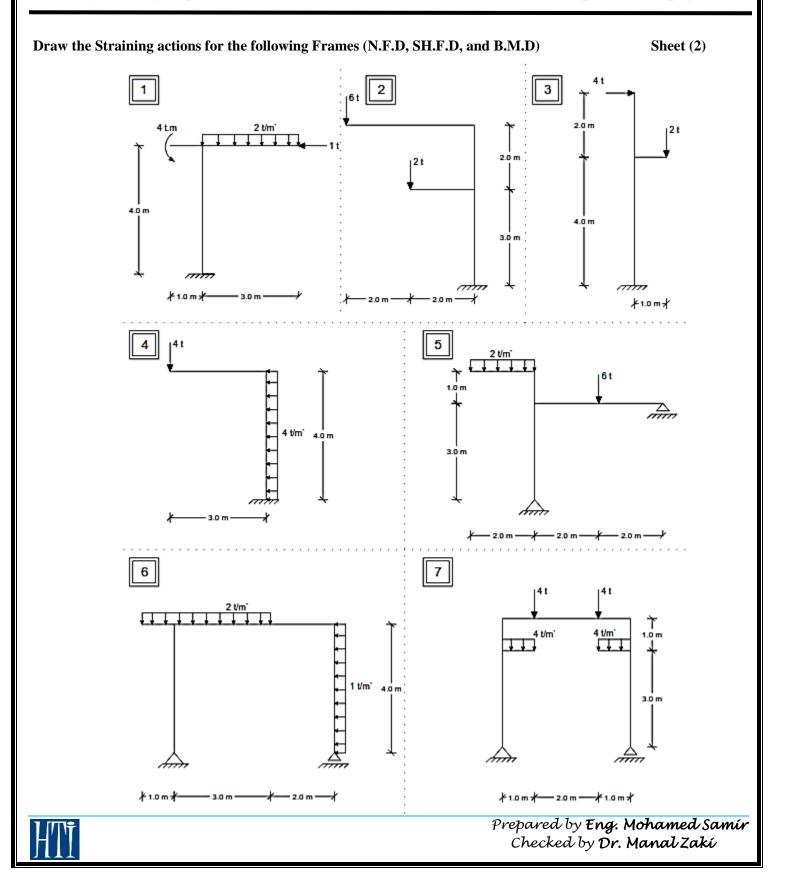


Good Luck .....



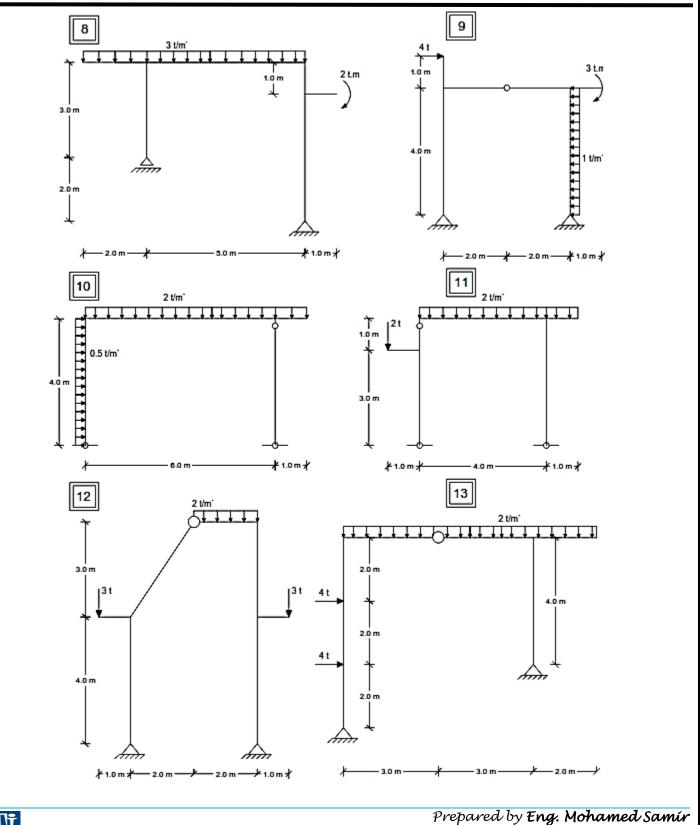


Structure Analysis (II) – CT-112 Frames Sheet (2/5) – part (1/4) - page (1/2)





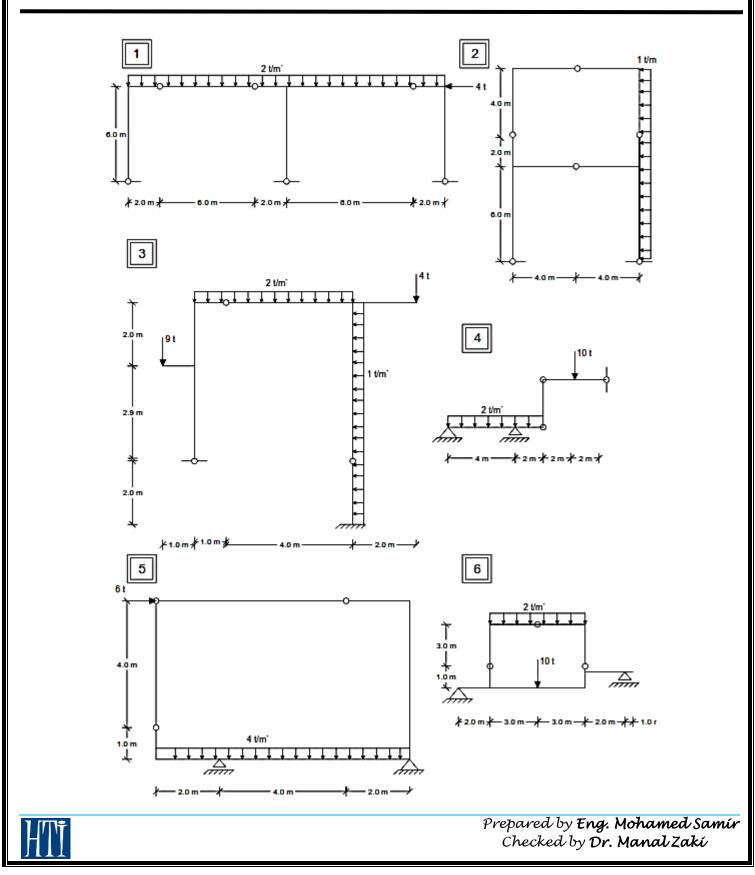
Structure Analysis (II) – CT-112 Frames Sheet (2/5) – part (1/4) - page (2/2)





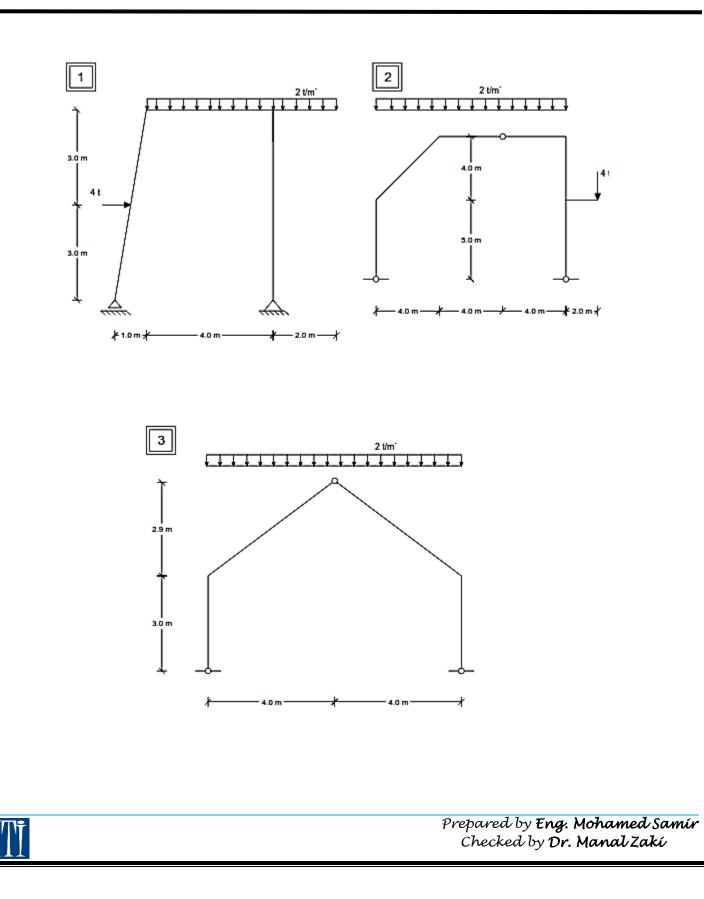


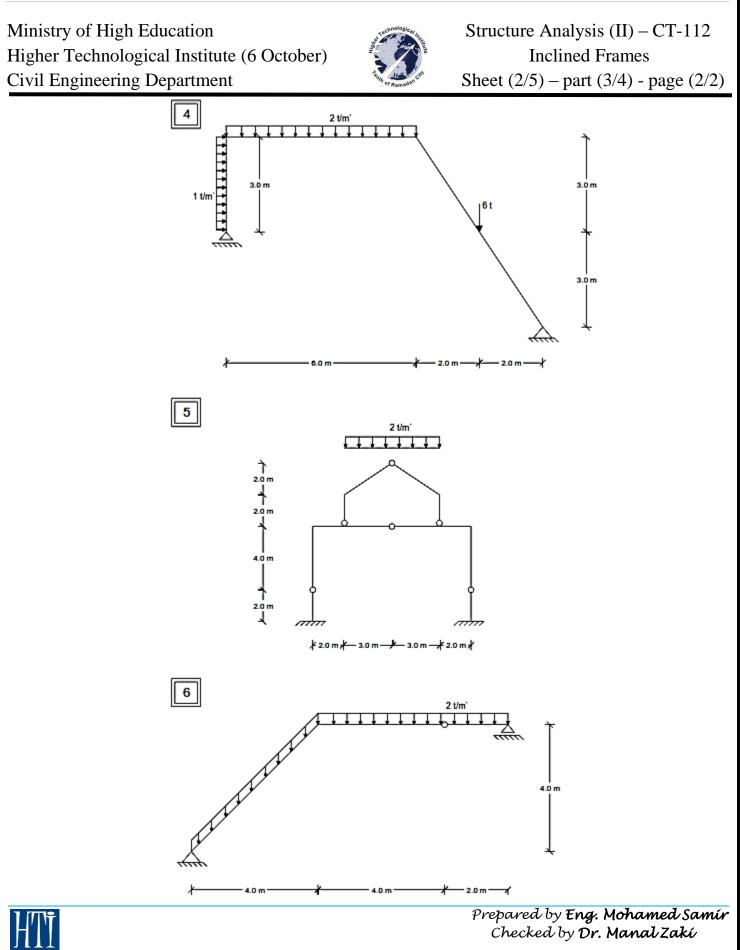
Structure Analysis (II) – CT-112 3- hinged Frames Sheet (2/5) – part (2/4) - page (1/1)

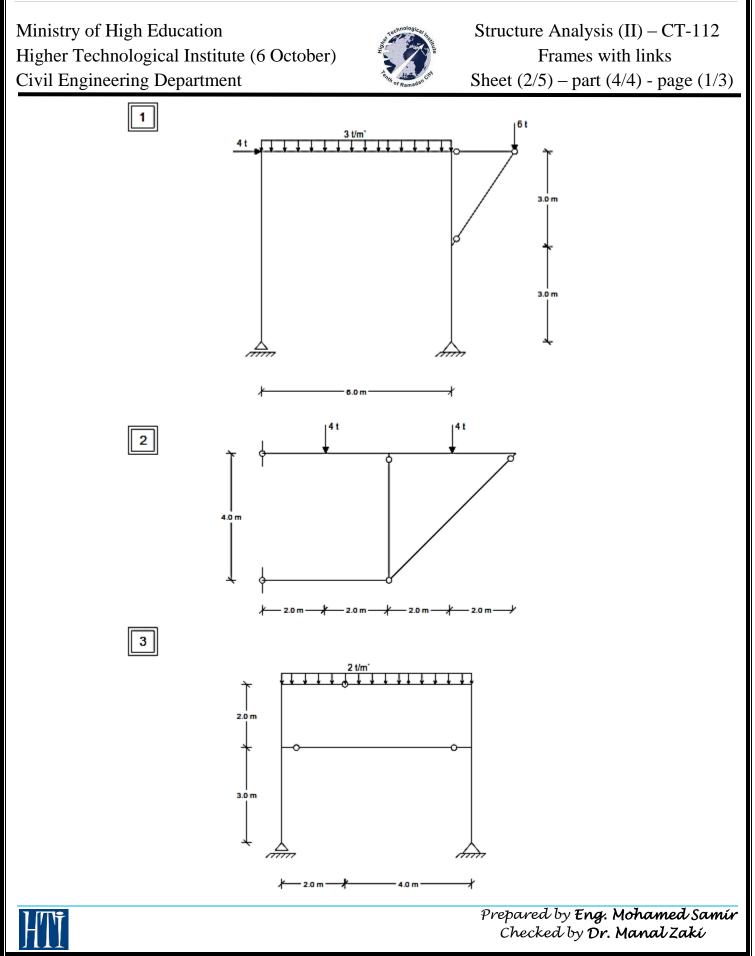




Structure Analysis (II) – CT-112 Inclined Frames Sheet (2/5) – part (3/4) - page (1/2)

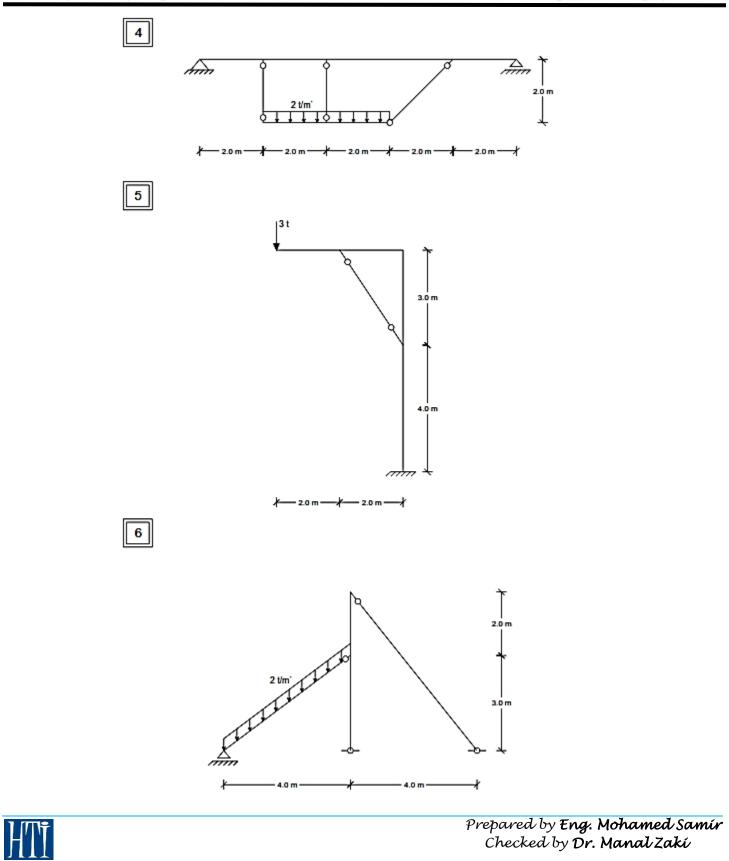


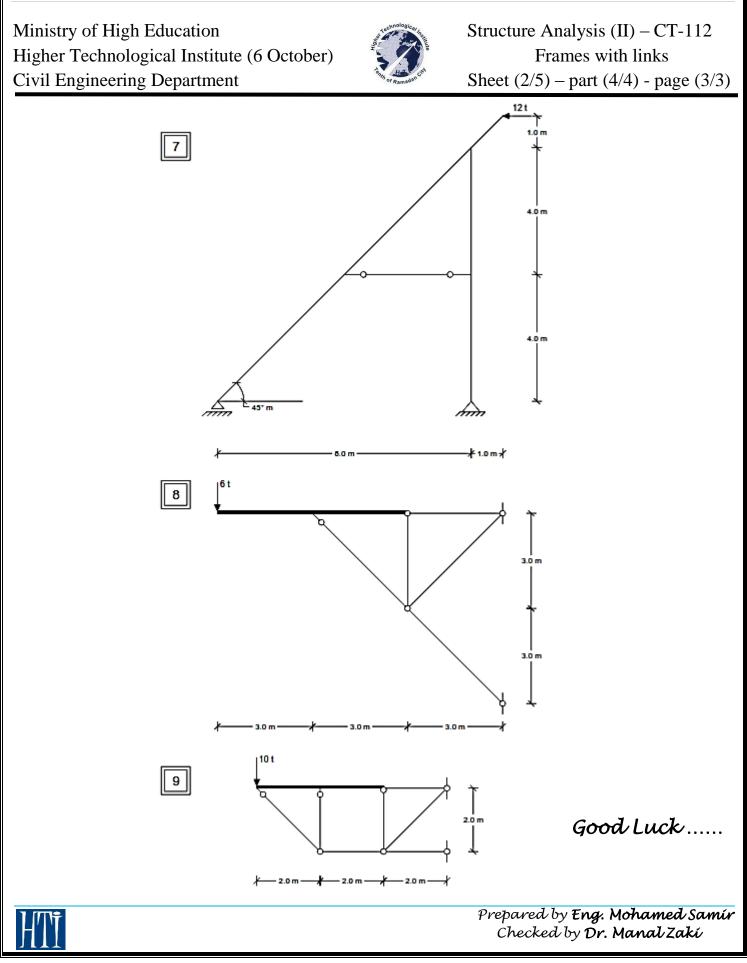






Structure Analysis (II) – CT-112 Frames with links Sheet (2/5) – part (4/4) - page (2/3)





#### 15 | Page

Ministry of High Education Higher Technological Institute (6 October) Civil Engineering Department

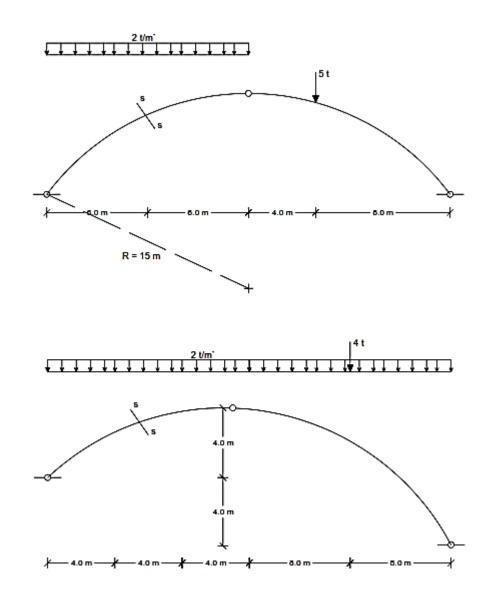


Structure Analysis (II) – CT-112 Arches – Circular arches Sheet (3/5) – part (1/1) - page (1/2)

- Draw the line of pressure.

Sheet (3)

Find analytically & check graphically the N.F.D, SH.F.D & B.M.D at sec s-s.





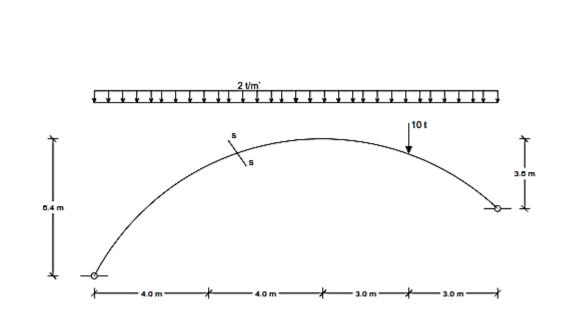
 $\mathbf{Y} = \mathbf{a}\mathbf{x}\mathbf{2}$ 

Ministry of High Education Higher Technological Institute (6 October) Civil Engineering Department



Structure Analysis (II) – CT-112 Arches – Parabolic arches Sheet (3/5) – part (1/1) - page (2/2)

- Find analytically & check graphically the N.F.D, SH.F.D & B.M.D at sec s-s.



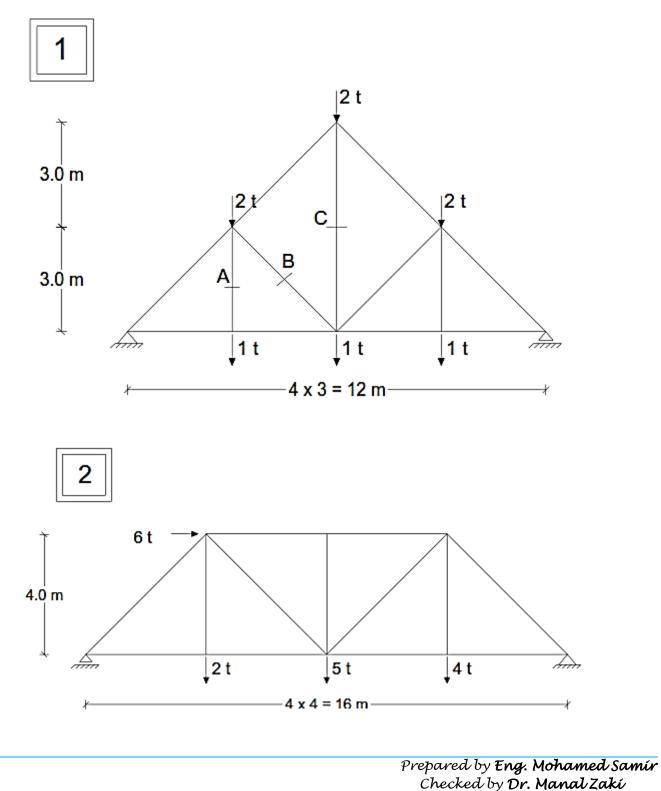
Good Luck .....





Structure Analysis (II) – CT-112 Trusses Sheet (4/5) – part (1/2) - page (1/6)

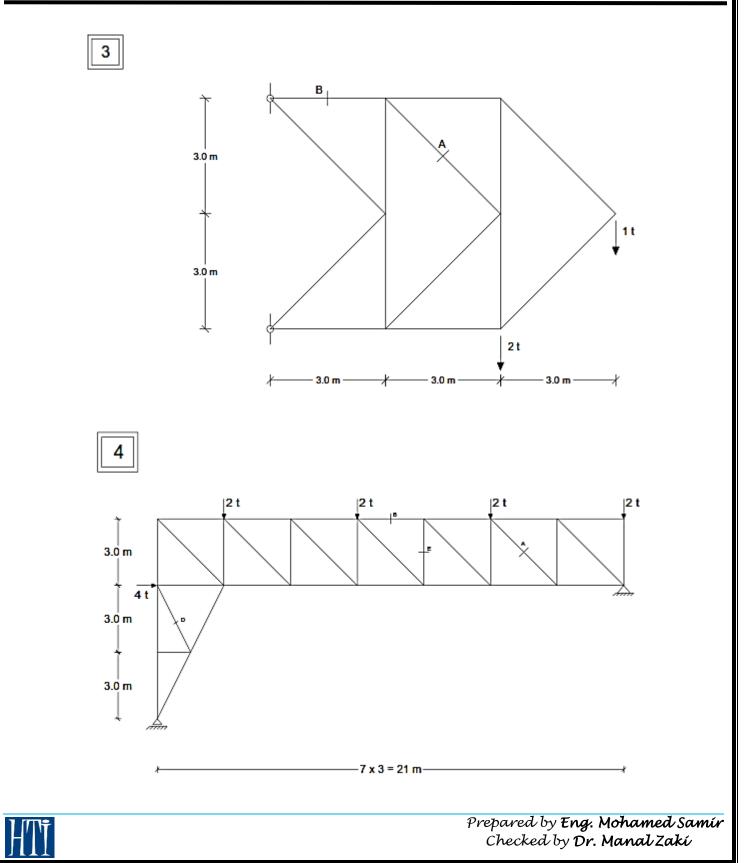
- Find the internal forces at these members.





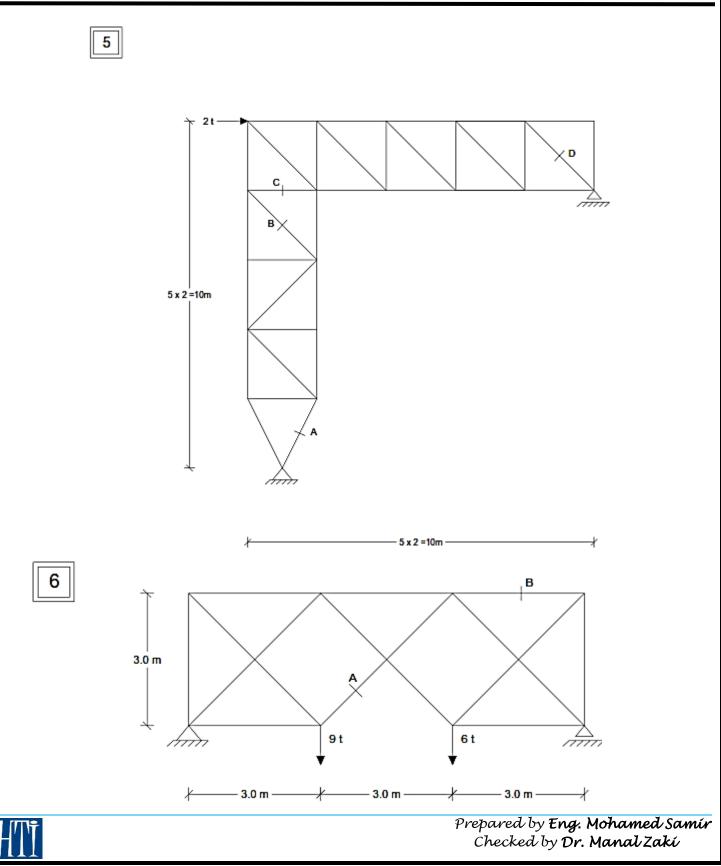


Structure Analysis (II) – CT-112 Trusses Sheet (4/5) – part (1/2) - page (2/6)



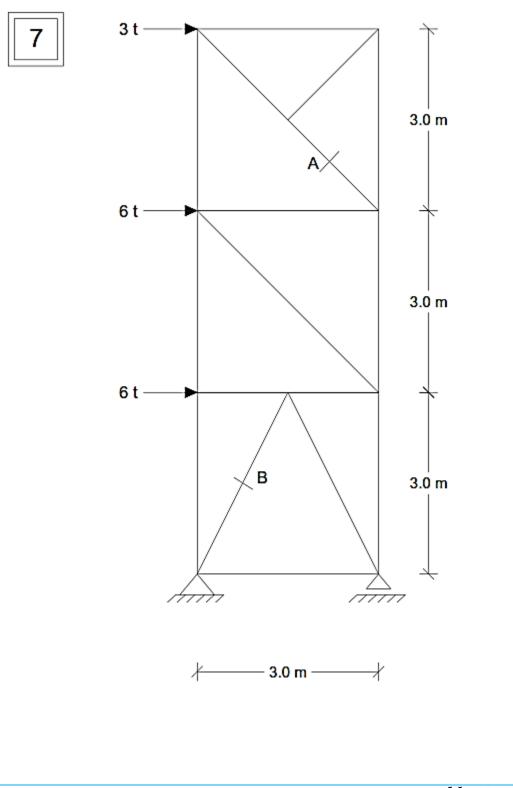


Structure Analysis (II) – CT-112 Trusses Sheet (4/5) – part (1/2) - page (3/6)





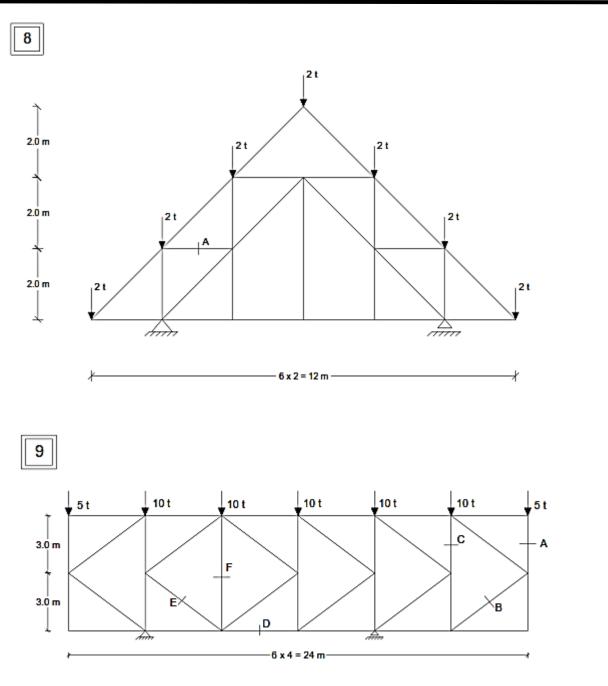
Structure Analysis (II) – CT-112 Trusses Sheet (4/5) – part (1/2) - page (4/6)







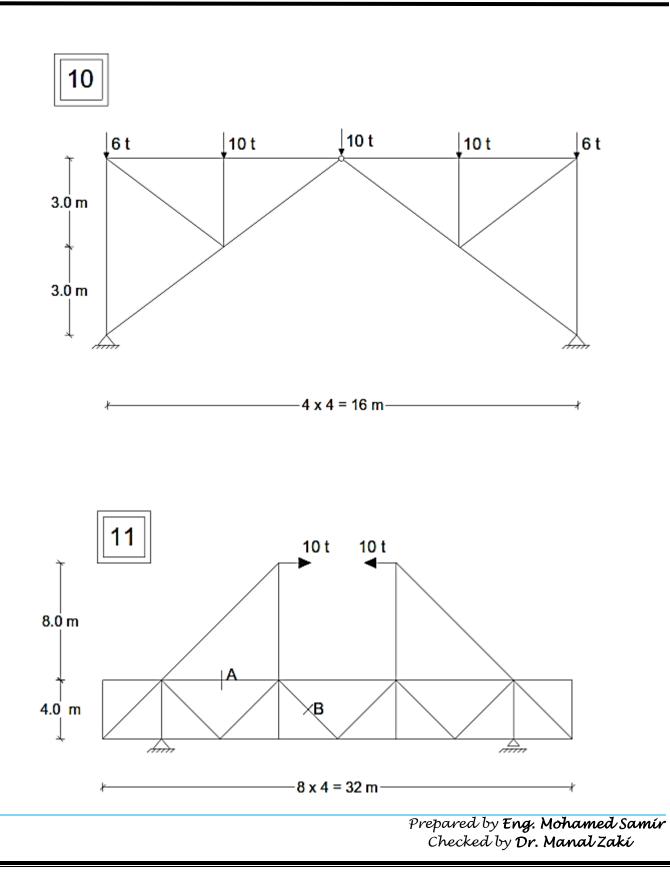
Structure Analysis (II) – CT-112 Trusses Sheet (4/5) – part (1/2) - page (5/6)





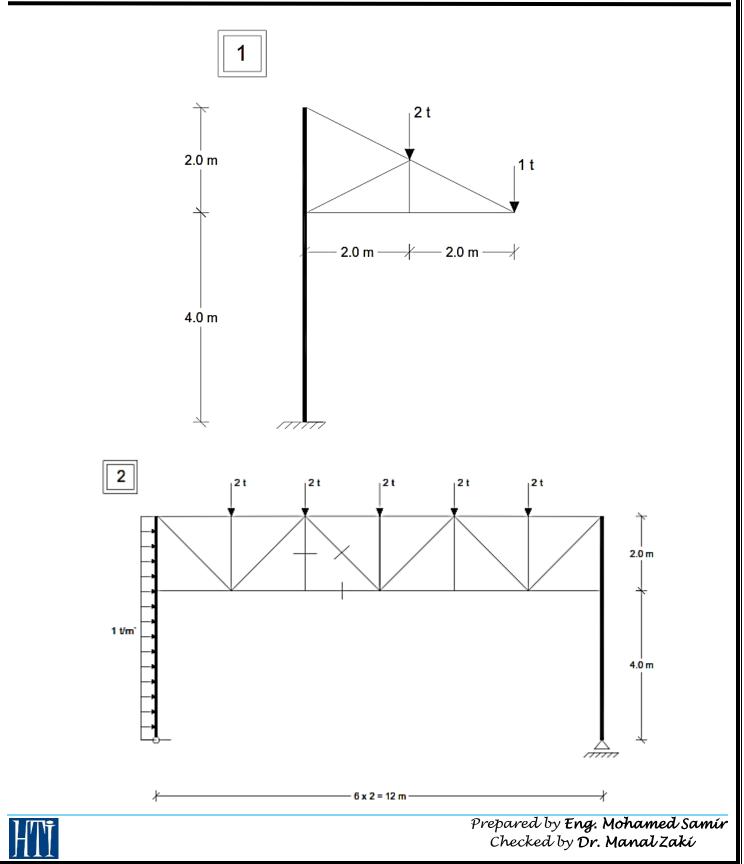


Structure Analysis (II) – CT-112 Trusses Sheet (4/5) – part (1/2) - page (6/6)



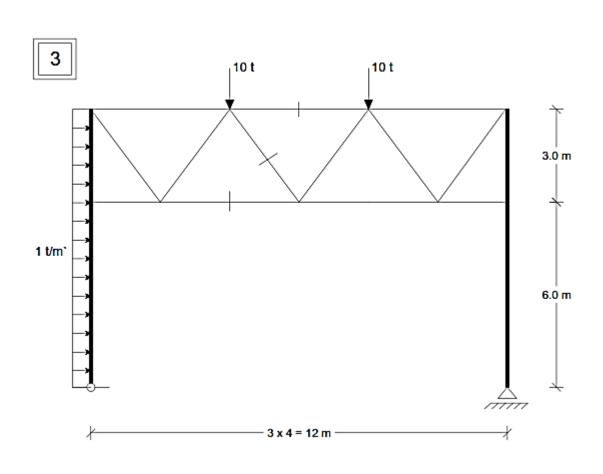


Structure Analysis (II) – CT-112 Trusses with columns Sheet (4/5) – part (2/2) - page (1/2)





Structure Analysis (II) – CT-112 Trusses with columns Sheet (4/5) – part (2/2) - page (2/2)

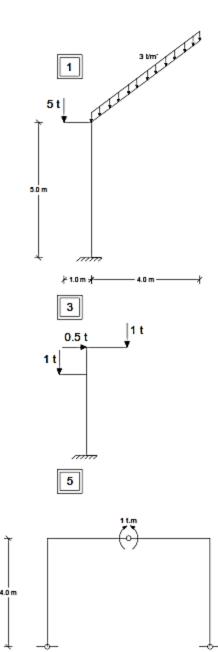


Good Luck .....



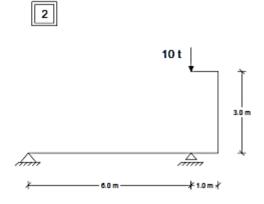
Structure Analysis (II) – CT-112 Draw Bending only Sheet (5/5) – part (2/2) - page (1/2)

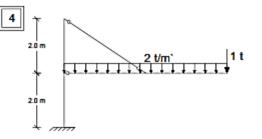
#### Draw B.M.D only.

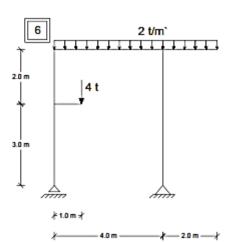


3.0 m

3.0 m







HTĪ



Structure Analysis (II) – CT-112 Draw Bending only Sheet (5/5) – part (2/2) - page (2/2)

