Quiz.2
Fall 2014-2015
(November 26, 2014)
CIVE210 – STATICS
CLOSED BOOK, 1 HR 30 Minutes

Name: **ID#:** **Section:**

NOTES

- 2 PROBLEMS– 11 PAGES.
- ALL YOUR ANSWERS SHOULD BE PROVIDED ON THE QUESTION SHEETS.
- **TWO EXTRA SHEETS IS PROVIDED AT THE END.**
- **ASK FOR ADDITIONAL SHEETS IF YOU NEED MORE SPACE.**
- SOME ANSWERS MAY REQUIRE MUCH LESS THAN THE SPACE PROVIDED.
- ***DO NOT*** USE THE BACK OF THE SHEETS FOR ANSWERS.
- *DRAFT BOOKLET WILL BE PROVIDED; BUT DO NOT USE FOR ANSWERS.*
- BOTH QUESTION SHEETS AND DRAFT BOOKLET SHOULD BE RETURNED.
- CHECK BOXES ARE TO CONFIRM THAT YOU HAVE SOLVED A QUESTION. ☑

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YOUR COMMENT(S)

_ _

_ _

DO NOT WRITE IN THE SPACE BELOW

MY COMMENT(S)

_ _

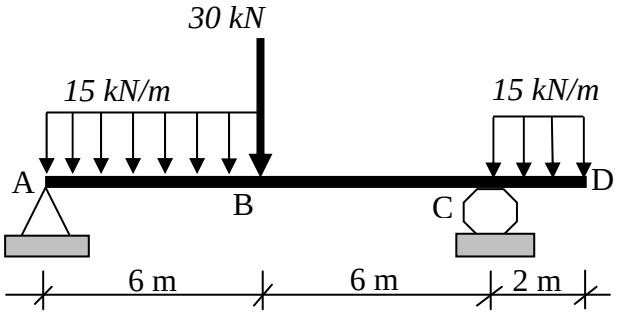
_ _

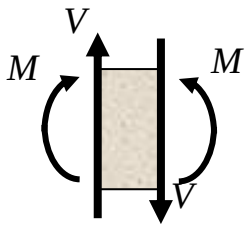
YOUR GRADE

Problem I: _ _ _ /35
Problem II: _ _ _ /65

TOTAL: /100

Problem I: *(35 points)*





(+) Convention

Figure I

Tick Boxes to check that you solved all questions

For the beam shown in Figure I:

1- Compute the reactions at supports A and C. *(5 points)* ☐
2- Using the method of sections, write the equations for shear and moments between A and B, B and C, and C and D. *(18 points)* ☐
3- Draw the shear force and bending moment diagrams (use the space provided below for the diagrams and draw to scale as much as you can). Show the important and necessary features and values on the diagrams and indicate the maximum positive and negative shears and moments in the beam. *(12 points)* ☐

Calculations and/or Diagrams:

S.F.D

B.M.D

Calculations and/or Diagrams (cont'd):

Calculations and/or Diagrams (cont'd):

Problem II: *(65 points)*

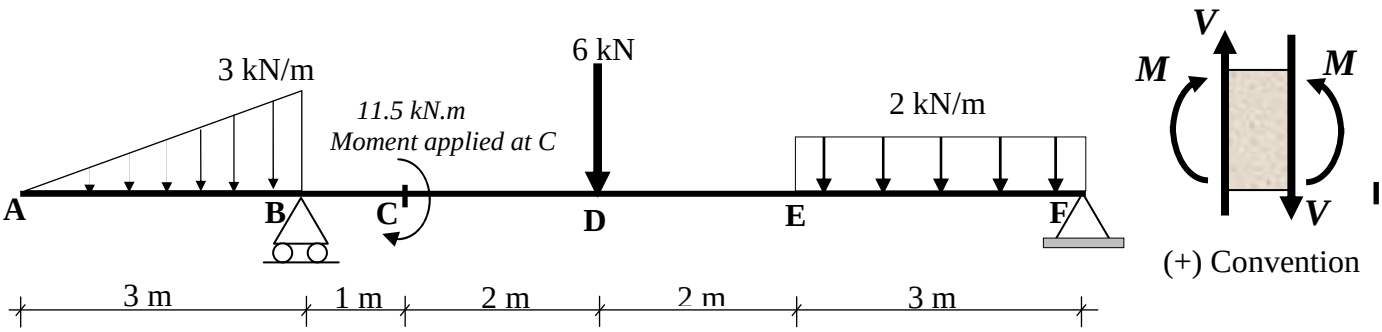


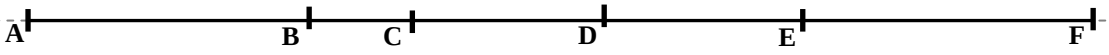
Figure II

For the beam shown in Figure II:

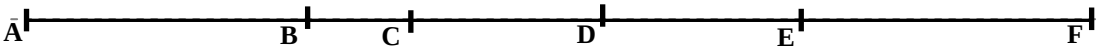
1- Compute the reactions at supports B and F. *(5 points)* ☐
2- Using sections, compute the shear force and bending moments at points A, B,C, D,E, and F. *(20 points)* ☐
3- Using a proper origin, write the equations for shear and moments between A and B and E and F, confirm your results obtained in question 2. *(10 points)* ☐
4- Using the method of integration (or areas), draw the shear force and bending moment diagrams (use the space provided below for the diagrams and draw to scale as much as you can). Show the important and necessary features and values on the diagrams and indicate the maximum positive and negative shears and moments in the beam. *(30 points)* ☐

Calculations and/or Diagrams:

S.F.D



B.M.D



Calculations and/or Diagrams (cont'd):

Calculations and/or Diagrams (cont'd):

Calculations and/or Diagrams (cont'd):

Calculations and/or Diagrams (cont'd):

EXTRA SHEET 1: Continued from page _____

Name: _____ **ID#:** _____

Calculations and/or Diagrams:

EXTRA SHEET 2: Continued from page _____

Name: _____ **ID#:** _____

Calculations and/or Diagrams: