

### ARCH 614: Practice Quiz 3

Note: No aids are allowed for part 1. One side of a letter sized paper with notes is allowed during part 2, along with a silent, **non-programmable** calculator. There are no reference charts for part 2.

Clearly show your work and answer.

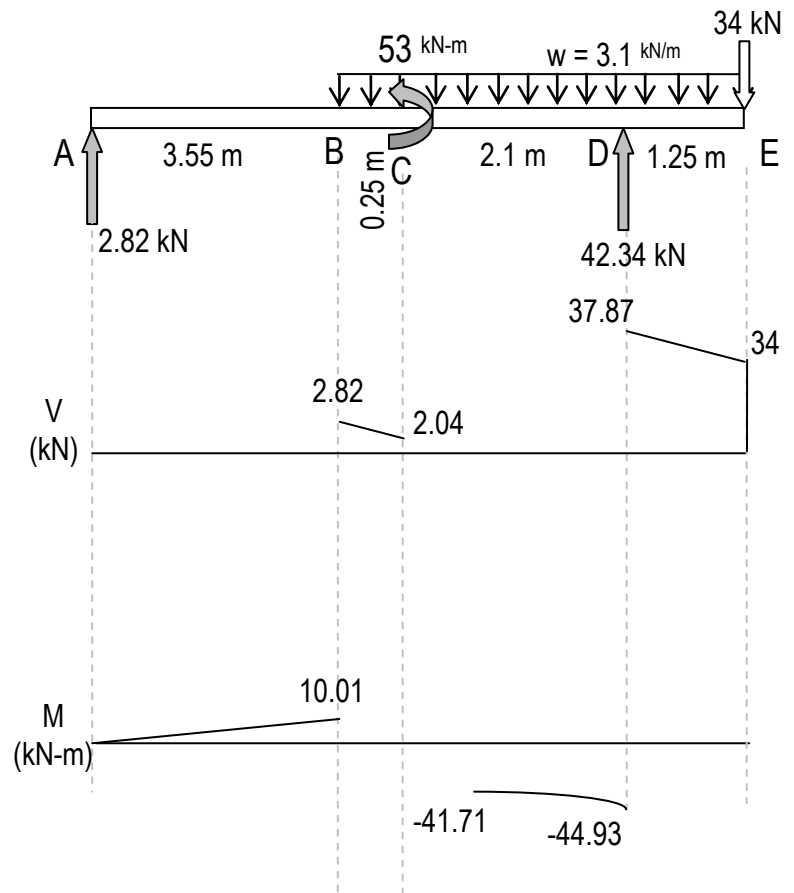
Part 1) Worth 5 points  
(conceptual questions)

Part 2) Worth 45 points

(NOTE: The units, dimensions, loading and reactions for the beam can and will be changed for the quiz! The loading types will not.)

Given the beam to the right with the following loading and for which all support reactions have been determined, find:

- The completed shear diagram by indicating key values. Identify and locate the maximum shear necessary for design.
- The completed bending moment diagram by indicating key values. Identify and locate the maximum bending moment necessary for design.



**Disclaimer: Answers have NOT been painstakingly researched.**

Answers – Not provided on actual quiz!

- values are not all marked
- $V_{max} = 37.8 \text{ kN}$  at D,  $M_{max} = -44.93 \text{ kN-m}$  at D

