

King Fahd University of Petroleum & Minerals

Department of Civil and Environmental Engineering

CE 201 – Static

Semester: 112
Examination: Final
Date (Day): May 28, 2012 (Monday)
Time: 07:30 – 10:30 a.m.

Section	1 & 11	2 & 5	3	4	7 & 9	10 & 12	13
Instructor	Chowdhary	Mandil	Qahtani	Hussein	Malack	Arifulzaman	Sharif
Time	09:00 & 11:00	08:00 & 09:00	09:00	10:00	08:00 & 13:10	10:00 & 09:00	11:00
Tick							

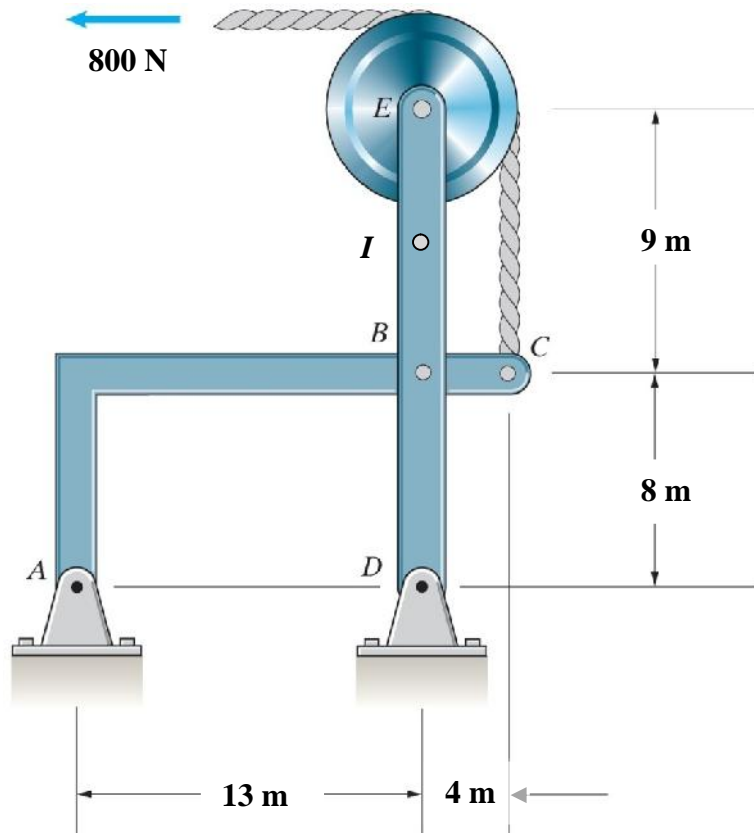
Student's Name :
Student's ID :

Problem	Assigned Grade	Earned Grade
1	20 (Points)	
2	25 (Points)	
3	25 (Points)	
4	15 (Points)	
5	15 (Points)	
Total	100 (Points)	

Good Luck

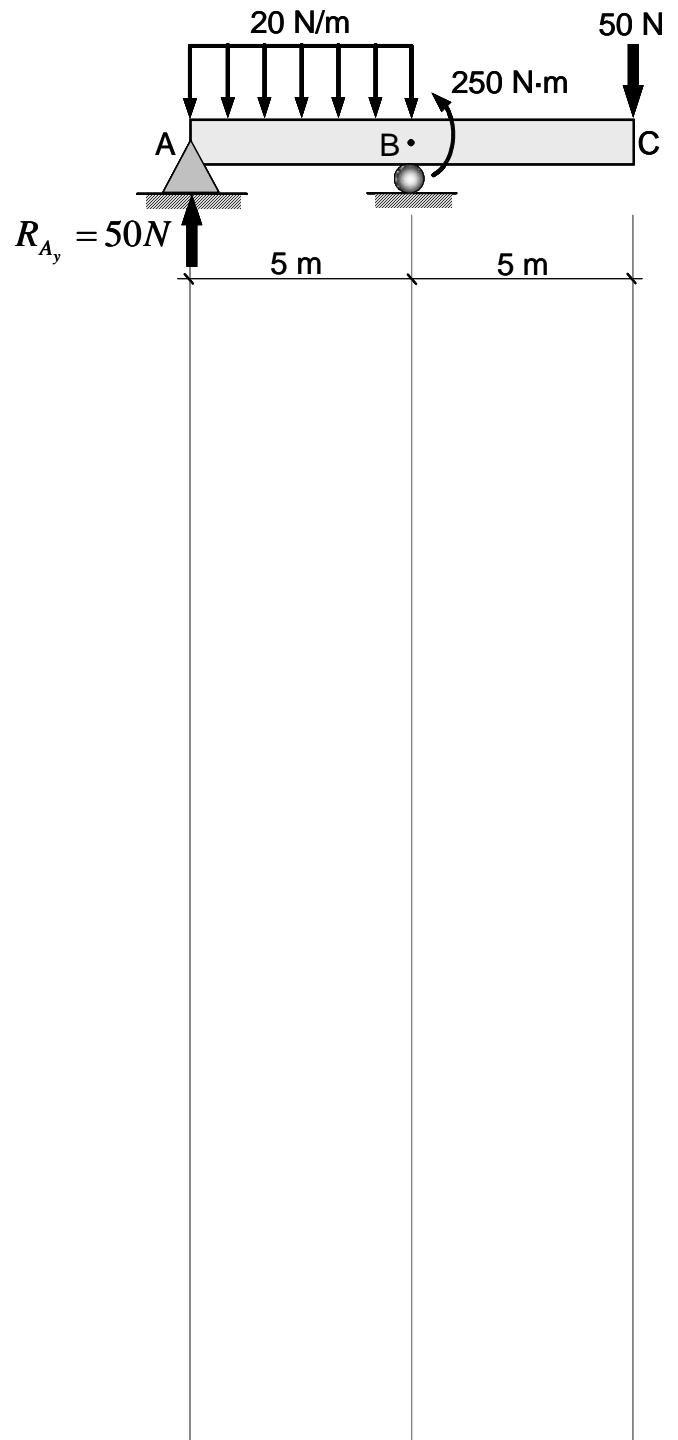
Problem 1 (20 Points)

- (14 Points) 1. Determine the reactions on member ABC at A and B .
- (6 Points) 2. Determine the internal shear force, normal force and bending moment at point I which is mid-way between points B and E .



Problem 2 (25 Points)

Draw shear and moment diagrams for beam ABC.



Problem 3 (25 Points)

Find the smallest force (P) required to cause impending motion in the two box assembly shown below.

Given $W_A = 300 \text{ N}$, $\mu_A = 0.45$
 $W_B = 500 \text{ N}$, $\mu_B = 0.35$

