

Spring 2008
ENTC 463 Mechanical Design Applications II
Homework Assignment

HW#1, Due 1/24/2008
Chapter 7
Problem – 1, 2, 3, 10, 13

HW #2, Due 1/29/2008
Chapter 7
Problem – 30, 32, 33, 39

HW# 3, Due 1/31/2008
Estimate the load carrying capacity of a wire rope:

- ¼” x 6 x 7 haulage wire rope
- Plow steel
- Max. operating height at 30 ft
- No significant acceleration
- Cast iron sheave

Lab #1, Due 2/7/2008

HW #4, Due 2/12/2008
Chapter 8 – 4, 22, 35, 39
Chapter 9 – 2, 38, 44

HW#5, Due 2/14/2008
Helical Gears
Chapter 8 – 44
Chapter 10 – 2 (change helix angle to 25 degree), 6.

HW#6, due 2/26/2008
Bevel Gears
Chapter 8 – 49
Chapter 10 – 15

HW#7 Worm and Wormgear, due 2/28/2008
Chapter 8 – 55
Chapter 10 – 19

HW#8 Rolling contact bearing, due 3/4
Chapter 14 – 4, 9

HW #9 Rolling contact bearing, due 3/18
Chapter 14 – 12, 21

HW #10 Plain Surface Bearing,
Due 3/25/2008
Chapter 16 – 3, 11, 19

HW#11 Key, Spline, and Coupling
Due 4/1/2008
Chapter 11 – 1, 3, 5 (for the application in problem 3)

HW #12 Shafts
Due 4/15/2008
Chapter 12 – 2, 4, 25, 27

HW # 13 Clutches and Brakes
Due 4/22/2008
Chapter 22 -10