

Your Name: _____

Section day and time: _____

T&AM 202 Prelim 1

Tuesday Oct 1, 2002

Draft September 26, 2002

3 problems, 100 points, and 90+60 minutes.

Please follow these directions to ease grading and to maximize your score.

- a) No calculators, books or notes allowed. A blank page for tentative scrap work is provided at the back. Ask for extra scrap paper if you need it.
- b) Full credit if
- →free body diagrams← are drawn whenever force or moment balance is used;
 - correct vector notation is used, when appropriate;
 - ↑→ any dimensions, coordinates, variables and base vectors that you add are clearly defined;
 - ± all signs and directions are well defined with sketches and/or words;
 - reasonable justification, enough to distinguish an informed answer from a guess, is given;
 - you clearly state any reasonable assumptions if a problem seems *poorly defined*;
 - work is I.) neat,
II.) clear, and
III.) well organized;
 - your answers are TIDILY REDUCED (Don't leave simplifiable algebraic expressions.);
 - your answers are boxed in; and
 - ≫ unless otherwise stated, you will get full credit for, instead of doing a calculation, presenting Matlab code that would generate the desired answer. To ease grading and save space, your Matlab code can use shortcut notation like " $\dot{\theta}_7 = 18$ " instead of, say, "`theta7dot = 18`".
- c) Substantial partial credit if your answer is in terms of well defined variables and you have not substituted in the numerical values. Substantial partial credit if you reduce the problem to a clearly defined set of equations to solve.

Problem 1: _____/_____

Problem 2: _____/_____

Problem 3: _____/_____

TOTAL: _____/100