## Instructions:

Print and sign your name on this exam (no nicknames, print and sign your name exactly how it appears in Blackboard). In doing so, you are (1) agreeing to all the rules and regulations set forth in the syllabus and this page pertaining to cell phones and calculators for this exam and are in addition (2) acknowledging and agreeing to all aspects of all Marshall University's policies, specifically the policies on Academic Dishonesty and the Student Code of Conduct.

All questions must be answered in the space provided on the test or on provided scratch paper. Scratch paper must be turned in with your exam and stapled to it if you have items to be graded on it (let me know by writing in your exam for me to look at your scrap paper if used).

You may use a simple non-graphing calculator, nothing else; no cell phone calculator apps (raise your hand if you need a real calculator before the exam starts, I might have a single spare one in case someone's batteries die, but it is your responsibility to bring one). Cell phones need to be off and stowed away out of sight and reach. If your cell phone is out during an exam, you will receive a zero, automatically, no questions asked. Make sure nothing is in the calculator cover. If any notes are found in your calculator cover, or anywhere else, you fail the exam (breaking either may result in academic dishonesty investigations/charges and/or failing the course). Questions about the formula sheet cannot be addressed during the exam. Raise your hand if you have a question or need clarification on any exam question(s).

## Part I – (40%) Conceptual & Quick Problems – Multiple choice, True (T) and False (F), fill in the blank, etc.

• Circle the single choice that represents the best possible answer. Usually only one answer is correct, maybe more possibilities are correct if indicated in the question (do not fill obligated to choose more if you feel only one answer is correct). These problems are meant to test your comprehension of the concepts, equations, and ability to solve simple problems. Some of these problems may (1) require no mathematical work and focus on the concepts, (2) some may be simple recognition questions, (3) while some may require a small amount of work and should be relatively quick to solve, and (4) some maybe fill in the blank or true or false. Use the space provided to work out your answer. This section should take about 15 minutes; if you find yourself spending more time than this on this section, move on to the Written Problems section and come back to this section if you complete the other parts of the exam. This will typically be 10 problems at 3 points apiece. Do not waste considerable time on a single problem worth only 3 points. Skip it, move on! No partial credit will be awarded for these problems. Ask for scratch paper if needed.

## Part II – (60%) Written Problems – Show ALL your work in a clear organized manner (follow E.C.A.N.S.U. in the syllabus):

• To receive the maximum amount of points (1) show all starting basic full Equations with just variables (show which terms Cancel/go to zero explicitly for the given problem), (2) show all sketches, diagrams, and Force Body Diagrams (FBDs) that are needed, (3) complete all Algebraic steps first with no numbers, (4) then plug in Numbers at the end after algebraic manipulation is complete, and (5) make sure your final answer has the correct number of Significant figures correct Units. Typically, 3 problems at 15 points apiece will be given for each in-class exam. Do not just write down random equations - no points will be awarded for incorrect equations, so this will just clutter up the page. Partial credit will be given for partial solutions. Correct answers lacking supporting calculations and algebra will receive only partial points. A page full of numbers with no supporting algebraic equations and algebra manipulation will receive zero credit. SHOW YOUR WORK and SHOW ME WHAT YOU KNOW! FOLLOW E.C.A.N.S.U.

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