

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Kinetic Processes in Materials

3.21 Spring 2001

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Exam 1: March 9, 2001 4-237 10:05-10:55 AM

NAME: _____

This exam has two different types of questions. Please read them carefully and thoughtfully before you answer.

Question 1 has five parts, each of which is a short conceptual question about the subject material that has been covered up to Monday March 5. These “*short-answer questions*” should be answerable with **fewer than three clearly written sentences**. Your answers will be graded on accuracy, physical insight, and clarity. A concise clear answer will get a better score than a longer answer with the same content.

Question 2 will require quantitative or analytic reasoning.

Your answers should fit in the space provided in the exam. If you find that the provided space is insufficient, use the back of the previous page and clearly indicate that your answer continues.

You may wish to work your answer out on scratch paper before writing on the exam. Your answers will be graded on their accuracy, physical insight, and clarity. A concise clear answer will get a better score with a longer answer with the same content. You may supplement your answer with a figure, a plot, or equations. Your answers will be graded in their entirety—extraneous or irrelevant equations or remarks may reduce the clarity or accuracy of your answer.

The questions are not necessarily ordered according to their difficulty—it would be prudent to read them all before you start. Finally, each question is not weighted equally in the grading; the weights are given below.

Question 1-1-a: 15 points possible _____

Question 1-1-b: 15 points possible _____

Question 1-1-c: 15 points possible _____

Question 1-1-d: 15 points possible _____

Question 1-1-e: 15 points possible _____

Question 1-2: 25 points possible _____

Total: 100 points possible _____