Introduction: Key

1. Which which subfield(s) of macroeconomics best fits the following questions:

a. This is a classic question in the subfield of business cycles as it concerns short-run macroeconomic performance. Because monetary policy's effects are largely limited to the short run, growth economists are less interested in it. Both theoretical and empirical macroeconomists are interested in this question.

b. The term "exactly how many" suggests that this is an empirical question. Empirical work is much better than theoretical work at quantifying effects. It is of interest to growth economists because it affects the long run level of macroeconomic performance and business cycle macroeconomists because the productivity slowdown contributed to the business cycle.

c. This is largely a question for economic growth because the long run effects of these types of changes are more important than the short-run effects. It is also of interest to both theoretical and empirical macroeconomists.

d. The inclusion of "why" suggests that this is largely a question for theoretical growth macroeconomists. Theory is better than empirics at explaining behavior as opposed to quantifying it. Fertility's effects are more important to the long run than the short run.

e. This is an existential question that is critically important for all humans.

2. Suppose that wages unexpectedly increase by 10% while prices for goods and services unexpectedly increase by 5%. Discuss the redistributive effects of this inflation on the following relationships:

a. This type of inflation would likely benefit workers who see their real wages (nominal wages over the price level) increase. The owners of firms would be worse off.

b. Because this inflation is unexpected, the real value of debts will be lessened. Lenders are worse off and borrowers are better off.

3. Which of the following are examples of Pareto efficient allocations?

a. The conditions of the first welfare theorem apply to this model so equilibrium is Pareto efficient. Recall that this model assumes that all agents are price takers (resulting in perfect competition), so there is no market power.

b. These represent public goods. In a free and unregulated market, households will choose to underprovide these goods and equilibrium will not be efficient.

c. Monopolists exploit market power by restricting supply in order to drive up prices. Because the labor market is not competitive, equilibrium is not efficient.

d. Technically, labor suppliers still have some market power so the answer from 3c. still applies. The degree of market power is so small, however, that it is unlikely to ever justify any type of regulation.

e. This is a positive externality. Each firm will produce too little because they do not care about the effect on other firms. Equilibrium is not Pareto efficient.

f. In this case, the government corrects the distortion from 3a. A proportional tax, however, is also a distortion that causes households to supply too little labor and equilibrium to thus be Pareto inefficient. The government goods must be financed with a lump sum tax to avoid this. Most people, however, find a lump sum tax to be unpalatable for equity reasons.