

INSTRUCTIONS:

1. Answer **ONLY** the specified number of questions from the options provided in each section. Do not answer more than the required number of questions. Each section takes one hour.
2. Your answers must be on the paper provided. No more than one answer per page. Do not answer two questions on the same sheet of paper.
3. If you use more than one sheet of paper for a question, write "Page 1 of 2" and "Page 2 of 2."
4. Write **ONLY** on one side of each sheet. Use only pen. Answers in pencil will be disqualified.
5. Write ----- **END** ----- at the end of each answer.
6. Write your exam identification number in the upper right-hand corner of each sheet of paper.
7. Write the question number in the upper right-hand corner of each sheet of paper.

Section 3: Applied Economics—Answer Any Two Questions.

3A. (Econ 212: Lombardi) Capital is a common component of growth models.

- (a) In detail, please explain how capital contributes to economic growth in the Solow Model.
- (b) Explain how labor shifts around in the Lewis Two Sector Model. Generally speaking, does the model match the empirical evidence? Explain.

3B. (Econ 232: Ukil) Answer all of the following parts:

- (a) Consider the theoretical model on the impact of income taxes on the labor supply of a representative consumer. Assume this worker has wage rate of \$15 and then faces a tax rate of 25% on income. Draw the indifference curve and the budget constraint(s) both before and after such a taxation. Please label the axes and all equilibrium points and consumption levels carefully.
- (b) Now, explain graphically why the net effect of taxation on labor supply is theoretically ambiguous. For this answer, please use insight from the two types of effects that taxes may have on labor supply. Name and explain these two effects, and then clearly show (using graphs) how these two effects may have different effects based on one being larger than the other. In all graphs, please label the axes and all equilibrium points and consumption levels carefully.
- (c) Name a federal income tax policy that was aimed at promoting labor supply. Provide an overview of the empirical evidence on the impact of this policy on labor supply in the U.S.

3C. (Econ 221: Lombardi) Assume we start in an equilibrium where two firms compete and have equal marginal costs. Now suppose there is an increase in the marginal cost for one of the firms. In detail, please explain how the change affects each of the firms' behavior (i.e., their price, quantity, etc.) and the market equilibrium.

Repeat the above thought experiment for three market types: Cournot, Bertrand, and perfectly competitive. Note: For the perfectly competitive market, you can treat it as one dis-innovator (i.e., the firm with a higher marginal cost) versus all the other firms.

(over)