

University of Saskatchewan
Department of Economics
Econ 417.3
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Professor: Cristina Echevarria

Instructions: Answer all questions. Total: 180 points. You have 180 minutes.

PART I (short responses): 60 points (15 points each question)

1. Social infrastructure

- (a) Explain the relation between (total factor) productivity, efficiency and technological level.
- (b) There are two countries, X and Z . Productivity in Country X is twice as high as productivity in Country Z . Technology in Country X is four times as high as technology in Country Z . How does efficiency in the two countries compare?

2. True or false. Evaluate the validity of the following statements by providing a brief explanation or analysis:

- (a) The income gap ratio and the head count, as measures of poverty, may lead to different uses of antipoverty resources by policy makers.
- (b) World poverty shows a steadily diminishing trend all through the 1970s, 1980s and 1990s.

3. Misallocation among sectors. Consider a country in which there are two sectors, called Sector 1 and Sector 2. One of the sectors is the industrial sector and the other is farming. The production function in the two sectors are:

$$\begin{aligned} Y_1 &= L_1^{1/2} \\ Y_2 &= L_2^{1/2} \end{aligned}$$

where L_i is the number of workers employed in sector i . The total number of workers in the economy is L . Workers move freely between sectors so that wages are equalized.

- (a) Calculate the optimal allocation of labour (the case in which workers are paid the marginal product in both sectors). Calculate GDP in this case assuming the price of both goods to be the same (equal to one).
- (b) Calculate the allocation if workers in Sector 1 are paid their marginal product while workers in Sector 2 are paid their average product. Calculate GDP in this case. Is output higher or lower than in the optimal allocation (case a)?
- (c) Explain this type of inefficiency (misallocation of resources). What is a likely explanation for workers in the second sector receiving the average product rather than the marginal product? Which sector is the industrial sector and which one is farming?

4. Inequality. How is the Gini coefficient constructed? What values of the Gini coefficient corresponds to perfect equality and perfect inequality?

PART II (long responses): 120 points (30 points each question)

5. Is poverty an absolute concept or a relative concept? Poverty is defined as the inability to fulfill "minimum needs". There are clearly some components of "minimum needs" that we would consider necessary in any society, but there are other components of minimum needs that are society-specific.

- (a) Absolute poverty. Try and identify some components of minimum needs that we should consider necessary in any society.
- (b) Relative poverty.

1. Identify some components of minimum needs that you feel are specific to one society but not another.
 2. Do you think these relative components of minimum needs are purely social (cultural) or are they apt to change with the per capita income of a country?
- (c) Consider the following poverty measure: anybody who has less than half (or some predetermined fraction) of the per capita income of a society is poor.
1. Is this a measure of absolute or relative poverty?
 2. When is this a bad approach to poverty measurement? When is this a good approach to poverty measurement? Explain your answer.
6. What is the **natural resource curse**? What are some potential explanations for it?
7. **How does government affect growth?**
- (a) What are some of the reasons for poor governance?
 - (b) What are the explanations for the positive correlation between GDP per capita and the quality of government? Discuss the question of causality.
8. **Financial role of families.** According to Cox and Jimenez (1990),
- (a) what are the main benefits derived from private transfers?
 - (b) Who are these transfers addressed to?
 - (c) Are they motivated by altruism or exchange? Why does the motivation matter?

PART III: 10 extra points

9. **The role of cooperatives in development** and the interrelation with governance in a country: explain Prof. M. Fulton's argument of how poor governance can halt the beneficial effects of cooperatives.