

ECO 375
Fall 2018
Midterm Exam 2
11/15/2018
Time Limit: 75 Minutes

Name (Print): _____

This exam contains 8 short answer questions, 1 longer answer question, and 2 long answer questions. You must complete all short answer and longer answer questions; however, you only need to complete 1 of the long answer questions. Check to see if any pages are missing.

You may *not* use your books or notes on this exam. Calculators are permitted.

You are required to show your work on each problem on this exam. The following rules apply:

- **Organize your work**, in a reasonably neat and coherent way, in the space provided. Work scattered all over the page without a clear ordering will receive very little credit.
- **Show your work**. A correct answer, unsupported by calculations, explanation, or algebraic work will receive no credit; an incorrect answer supported by substantially correct calculations and explanations might still receive partial credit.
- If you need more space, use the back of the pages; clearly indicate when you have done this.

Multiple Choice: Circle the correct answer.

1. (5 points) The Soviet Union was attractive to developing countries because:
 - A. it was very effective at producing and supplying consumer goods.
 - B. it had transformed a backward economy into an industrial powerhouse that defeated the strongest military in the world-Nazi Germany
 - C. Lenin's Capitalism, the Highest Stage of Imperialism was a best-seller in their nations.
 - D. the people were fascinated with the idea of becoming technocrats.
2. (5 points) The design of social safety nets differs from income transfers in that the former:
 - A. recognize that poverty is often transitory and not permanent.
 - B. do not always go to poor people.
 - C. are expensive to administer and lack public support.
 - D. none of the above.

3. (5 points) A very small decrease in the poverty line is likely to do what?
 - A. Increase the poverty gap.
 - B. Decrease the poverty gap
 - C. Decrease the headcount index.
 - D. Decrease the mean consumption of those under the poverty line.
4. (5 points) Which education indicator refers to enrollments of those only in the relevant age group?
 - A. gross enrollment rates
 - B. net enrollment rates
 - C. grade survival rates
 - D. learning outcomes
5. (5 points) Which of the following is NOT considered a school of thought on population and development?
 - A. population optimism
 - B. population revisionism
 - C. population pessimism
 - D. population reactionism
6. (5 points) Which of the following statements are true about total fertility rates over the past 40 years?
 - A. Higher rates of population growth are strongly associated with lower rates of economic growth.
 - B. High-income countries have larger fertility rates than low-income countries.
 - C. Low-income countries have higher rates of population growth.
 - D. All of the above.
7. (5 points) If everyone in a country had the same level of income, then the value of the Gini concentration ratio would be:
 - A. 1.0
 - B. 0.0
 - C. 0.5
 - D. infinity.
8. (5 points) In the Solow Neoclassical Growth model, a decrease in the population rate cause which of long run change.
 - A. The per year change in capital per worker will go up.
 - B. The amount of capital per worker decreases.
 - C. The per year change in capital per worker will go down.
 - D. Output per worker increases.

Longer Answer Question: Please answer the following. Be sure to label any graphs.

1. (30 points) Use the following graph to answer the questions.

TABLE 8-1 Changes in Schooling, Gross Enrollment Rates by Region, 1975-2005

REGION*	PRIMARY		SECONDARY		TERTIARY	
	1975	2005	1975	2005	1980	2005
East Asia and the Pacific	112.8	111.4	36.5	72.5	2.5	20.1
Europe and central Asia	96.9	96.9	84.7	87.9	32.9	54.7
Latin America and the Caribbean	109.1	117.7	38.3	89.7	13.1	29.6
Middle East and North Africa	81.5	106.3	31.2	75.6	10.5	26.1
South Asia	76.7	109.7	26.5	49.5	4.5	10.4
Sub-Saharan Africa	58.8	92.0	11.3	31.8	1.2	5.3
High-income economies	98.4	99.8	78.6	97.7	34.3	62.3

*Data for each region are aggregated from country-level data. Countries in the region were not included if data were unavailable.

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), Institute of Statistics, available at <http://stats.uis.unesco.org/unesco/tableviewer/document.aspx?ReportId=143>.

- (a) (10 points) Explain why the primary gross enrollment rates in East Asia and the Pacific are above 100.
- (b) (10 points) What can you say about the developed to developing ratio of Europe based on the information on this graph? Why?
- (c) (10 points) What could explain the growth in tertiary education in East Asia and the Pacific.

Long Answer Questions: Please answer the following. Show all work. Draw graphs where needed. Only answer 1 of the 2 questions.

1. (30 points) The country of Grenyarnia only has 5 people. 3 of those people make \$100 a day. 1 person makes \$0.50 a day. The last person makes \$1.20 a day. The poverty line is \$1.25

- (a) (10 points) What is the poverty gap for this country. For the headcount index, use the ratio of those living under the poverty line to total population.

- (b) (10 points) Suppose, we change the poverty line to \$1. Has the poverty gap gone up or down? Show your work.

- (c) (10 points) Draw the Lorenz curve for this country.

2. (30 points) Freedonia, a developing country, has a computer industry that is dominated by one firm. The industry demand in Freedonia for computers can be described as $Q = 100 - 2P$, where Q represents the total amount of quantity in the market.
- (a) (10 points) The monopoly firm has a constant marginal cost of 5. Also, the firm has a fixed cost of 10. What is the equilibrium price and quantity.
- (b) (10 points) Now, a second firm comes into the market. This firm has a marginal cost of 10 with no fixed cost. What is the profit of each firm?
- (c) (10 points) Suppose that the government wants to pursue a “big push.” So, they begin investing in the corn, shoes, wheat, metal, textiles, coal, glass, chemical, and software industries. As an economist from the modern century, how might you change the government’s investing strategy. Be sure to explain your answer.

Extra Credit: Find the Gini coefficient when the Lorenz curve is described as $\frac{1}{100}x^2$.