Final. Spring 2011

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Economics of Development

Each question is worth the total number of points in parentheses; sub-questions are allocated an equal share of the total points per question. Final is worth 30 points.

1) Kuznets curves. (4 points)

a) Draw the original Kuznets curve presented when we first discussed the concept in class.

b) Explain the logic behind the shape of this curve.

c) Draw an example of an environmental Kuznets curve.

d) Explain the logic behind the shape of this curve.

e) Provide a critique of the original Kuznets curve.

f) Provide a critique of the environmental Kuznets curve.

2) True or False (3 points)

|  |  |
| --- | --- |
| Statement | Circle whether the statement is true or false |
| The majority of people in the developing world live in rural areas. | True False |
| The majority of people in the developing world’s labor force are employed in the service sector. | True False |
| The majority of GNP in the developing world comes from the agricultural sector. | True False |
| The share of natural capital in total wealth is higher for low income countries than it is for high income countries according to the World Bank’s ‘Where is the Wealth of Nations?’ | True False |
| The share of the urban population in a country is positively correlated with income per capita in that country when we compare a cross section of countries. | True False |
| The world population growth rate is currently the highest it has ever been. | True False |
| Current estimates of global population are in the 11-11.2 billion people range. | True False |
| First city bias describes the large population size difference found between the largest city in a developing country and the second largest city. | True False |
| The United States is the second largest donor of official development assistance of any country in the world. | True False |
| The United States allocates over 1% of GNP to official development assistance. | True False |
| “Bread and Circuses” is a theory that in order to stay in power, unstable governments provide benefits to urban dwellers to keep them content, thus bringing about further urban migration. | True False |
| Drug trafficking and prostitution are considered part of the informal sector in the developing world. | True False |
| Urban giantism describes the phenomena that the largest city in developing countries tends to hold the largest share of the national population who have higher height for age measures. | True False |
| The evidence from the WHO presented in class reported that malnutrition is a contributing factor to over half the deaths of children under five in developing countries. | True False |
| Female literacy rate is lower than male literacy rate when we take developing countries as a whole. | True False |

3) Population issues (3 points)

a) Fill in the following table. Fr stands for the total fertility rate of the associated age cohort during their reproductive years. Assume future youth cohorts will have a total fertility rate of 2. Total population is for males and females; assume 50% of the population is female. The number in each cell of the table in rows a,b, and c should describe the number of females in each cohort in a given generation.

Country A

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Generation 1 | Generation 2 | Generation 3 | Generation 4 |
| a.Pre-reproductive cohort, Fr=2 |  |  |  |  |
| b. Reproductive cohort , Fr=2 |  |  |  |  |
| c.Post reproductive cohort, Fr=2 | 300 |  |  |  |
| *Female Population* | *900* |  |  |  |
| *Total population* | *1800* |  |  |  |

Country B

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Generation 1 | Generation 2 | Generation 3 | Generation 4 |
| a.Pre-reproductive cohort, Fr=2 |  |  |  |  |
| b.Reproductive cohort , Fr=3 |  |  |  |  |
| c.Post reproductive cohort, Fr=4 | 150 |  |  |  |
| *Female Population* | *900* |  |  |  |
| *Total population* | *1800* |  |  |  |

Describe how your findings on total population by the fourth generation illustrate the concept of **the hidden momentum of population growth**.

4) Poverty measures. (3 points)

|  |  |
| --- | --- |
| Person number | Income per day |
| 1 | $0.05 |
| 2 | $0.55 |
| 3 | $0.75 |
| 4 | $0.90 |
| 5 | $2.50 |
| 6 | $2.55 |
| 7 | $2.75 |
| 8 | $3.25 |
| 9 | $6.50 |
| 10 | $8.20 |

TOTAL INCOME $28.00

a) What is the total poverty gap, the average poverty gap, the average income shortfall, and the normalized average income shortfall if the poverty line is defined as $1 per person per day?

TPG=

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

APG=

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

AIS=

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NAIS=

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) If we take $0.15 from person 5 and give it to person 4, does this reduce the headcount index and if so by how much?

Go back to the original distribution in the table at the top of the page. If we take $0.15 from person 3 and give it to person 4, does this reduce the headcount index and if so by how much?

c) What share of total income is held by the highest decile and what share is held by the lowest decile?

Highest=

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lowest=

5) Migration Models (3 points)

a) Describe the Harris-Todaro model of migration.

b) Explain how this model explains why you have continued migration to urban areas in spite of high urban unemployment.

c) Identify two policy implications of the model for a government which desires to reduce urban unemployment rates.

6) Health (3 points).

a) match

|  |  |  |
| --- | --- | --- |
| A | Write number of A that matches B here | B |
| 1. Biochemical Assessment |  | Measure of past undernutrition |
| 2. Dietary assessment |  | Blood test to detect anemia |
| 3. Clinical Assessment |  | Measure to detect wasting |
| 4. Weight for Age |  | Visually detect physical symptoms of malnutrition |
| 5. Height for age |  | Look at food intake to identify gaps in the diet |
| 6. Secondary malnutrition |  | Unable to absorb nutrients in food |

b) Explain the idea behind a disability adjusted life year.

1. Explain the argument that finding adult wage and height are positively correlated in some developing countries may reflect an underlying childhood health problem.

7) Agriculture. (3 points)

a) Describe the three main types of agrarian systems found in the developing world and note in which geographic region each one is most commonly found.

b) Chose one of these agrarian systems. Provide two reasons why a land reform and land titling program might contribute to improved productivity in this agrarian system.

8) Population issues 2. (3 points)

a) Draw a figure illustrating the demographic transition and note the different stages.

b) Explain why the one rate you drew in (a) decreases before the other.

c) What is meant by ‘the replacement rate’, what kind of rate is it, and what is the usual value associated with a replacement rate?

d) Describe in general terms the approach taken to analyzing population growth using models of the demand for children.

1. (3 points) Inequality
   1. Draw a Lorenz curve for the distribution of income in a country.
   2. Draw a Lorenz curve for the distribution of income in a country that is characterized by higher inequality in income distribution than you drew for (a).
   3. Illustrate areas on your graph for (b) and provide the formula below describing how you calculate a Gini coefficient for income inequality .

10) Environment and Development. (2 points)

1. Describe the measure of “green net national product (NNP\*)” presented in class and why one might want to use this instead of GNP to assess the value of all goods and services produced by an economy in a given year.
2. Describe how to interpret a negative value for ‘intangible capital’ based on the World Bank’s “Where is the Wealth of Nations” estimation methodology.

Extra Credit (get them all, get 1 bonus point).

Fun with Acronyms: Write out what the acronym stands for

|  |  |
| --- | --- |
| PRSP |  |
| PRGF |  |
| HIPC |  |
| ESAF |  |
| LICUS |  |