Final. Spring 2022

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) 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) What is the view of the role of the agricultural sector compared to the manufacturing sector in the theories of economic development associated with Lewis and Hirschman?

2) Kuznets curves. (3 points)

a) Draw the original Kuznets curve and label everything clearly.

1. Explain the logic behind the shape of this curve.
2. Explain how an ‘environmental Kuznet’s curve’ applies this basic idea to a different context.

3) Demographic Transition. (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) decreased before the other rate decreased.

c) Explain why there is concern that a country could get stuck in stage 2 of the transition.

4) Inequality. (3 points)

a) Draw a Lorenz curve for the distribution of income in a country. Be sure to label the axes.

1. Draw another Lorenz curve that has a more un equal distribution than the one in (a).

c) Describe how to compute the Gini coefficient for each of these two Lorenz curves, and argue whether the coefficient in (b) will be greater than (a) or vice versa.

5) True or False (3 points)

|  |  |
| --- | --- |
| Statement | Circle whether the statement is true or false |
| There is a positive correlation between income per capita and the share of the total population that lives in urban areas in cross country comparison. | True False |
| Currently, the majority of people in the developing world’s labor force are engaged in agriculture.  | True False |
| The current world population growth rate the highest ever experienced in human history. | True False |
| “Where Is the Wealth of Nations” reports poor countries have a larger share of wealth accounted for as natural capital than do wealthier countries. | True False |
| The Total Fertility Rate is the difference between the crude birth rate and the crude death rate. | True False |
| The value of all remittances from the US to developing countries is not included in the OECD measure of official development assistance (ODA). | True False |
| Estimates of current global population are in the 7.5 to 8 billion range | True False |
| The Foster Greer Thorbecke (FGT) α=1 measures the depth of poverty. | True False |
| The United States is the largest donor of official development assistance per capita of any country in the world. | True False |
| Per Capita food production is increasing by around 1% per year overall for the world. | True False |
| The Multidimensional Poverty Index measures poverty according to three key depravations: of health, of education, and of living standard. | True False |
| The informal sector is the unorganized, unregulated, unregistered sector of the economy | True False |
| Urban giantism describes the phenomena that as populations urbanize, nutrition improves and stunting incidence declines. | 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 |
| Genuine savings calculations reflect the depletion of natural resources. | True False |

6) Hidden momentum of population growth (3 points)

a) Fill in the following tables. Fr stands for the total fertility rate of the associated age cohort during their reproductive years. Assume all future youth cohorts will have a total fertility rate of 2 in their reproductive years. 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=3 | 1500 |  |  |  |
| *Female Population* | *6000* |  |  |  |
| *Total population* | *12000* |  |  |  |

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 | 1000 |  |  |  |
| *Female Population* | *6000* |  |  |  |
| *Total population* | *12000* |  |  |  |

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

b) Draw population pyramids for generation 1 in country A and country B.

7) Poverty measures. (3 points)

|  |  |
| --- | --- |
| Person number | Income per day |
| 1 | $0.06  |
| 2 | $0.36  |
| 3 | $0.52  |
| 4 | $0.84  |
| 5 | $0.90  |
| 6 | $1.24  |
| 7 | $1.26  |
| 8 | $3.98  |
| 9 | $7.52  |
| 10 | $15.32  |

TOTAL INCOME $32.00

a) What is the headcount, the headcount index, 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 $1.90 per person per day?

H=

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HI=

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TPG=

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APG=

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AIS=

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NAIS=

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b) If we take $1.00 from person 7 and give it to person 1, is there any change to the headcount index? Is there any change in the total poverty gap?

c) What share of total income is held by the highest quintile and what share is held by the lowest quintile (before the redistribution of part b – go to the table above to calculate)?

Highest=

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

Lowest=

8) Migration Models (3 points)

a) Describe the Harris-Todaro model of migration.

b) Explain how this model relies on the concept of expected wages.

c) A policy to create urban jobs is proposed as a means to lower urban unemployment rates. Explain why this model implies that might be counterproductive.

9) Education

a) Fill in the labels for lines and areas on this graph



b. Explain how you could use this figure to calculate the private rate of return to education.

1. Long term poverty dynamics.(3 points)
2. Contrast the concept of asset poverty with the concept of income poverty.
3. Explain how a positive correlation between agricultural wages and adult height can explain transmission of poverty over generations.
4. What were the main findings about pathways into poverty in Krishna’s study of Rajasthan presented in class?

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

Fun with Acronyms: Write out what the acronym stands for

|  |  |
| --- | --- |
| PRGF |  |
| YLL |  |
| IWMI |  |
| HIPC |  |
| ICOR |  |