SECOND MIDTERM – VERSION ##

No calculators permitted. A total of 100 points are possible.

Last Name: _____________________________ First Name: ________________________

Your Student ID Number: __ __ __ - __ __ - __ __ __ __

Part A: Multiple Choice Questions
(20 questions, each of which is worth 5 points)

Instructions: Answer these multiple choice questions on your Scantron. Write on the Scantron your name (last name first), student ID number, and exam version number in the “name,” “subject,” “test no.” boxes respectively. For example,

<table>
<thead>
<tr>
<th>NAME</th>
<th>McComb, Madeline</th>
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<tbody>
<tr>
<td>SUBJECT</td>
<td>530-66-6271</td>
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<tr>
<td>TEST NO.</td>
<td>1 or 2</td>
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<td>HOUR</td>
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**Warning**

If you first fill in an answer and then erase it to fill in a different one, and the first answer is not fully erased, the Scantron reader may detect two answers and not accept either one. Do not fill in an answer till you are sure this is the one you want to give, or you may not receive credit for the question.
1. Which of the following career choices in pre-industrial Europe would **NOT** be classified by economists as mainly **rent seeking**.

    A. Mercenary working for Italian city states
    B. Lawyer in the ecclesiastical courts in Rome
    C. Taxation advisor to a prince
    **D. Interior decorator**
    E. Soldier working for the English king

2. Suppose we find that we can predict the institutions a society has **just** from the relative prices of different factors and the production technology of the society. Which theory of institutions would this support?

    A. Institutions are exogenous.
    **B. Institutions evolve towards efficiency**
    C. Institutions depend on the distribution of political power
    D. Institutions improve over time like the production technology
    E. Institutions are endogenous

3. Which of the following formulas would you use to calculate efficiency growth rates in economies **before** 1800 (N = population, L = labor supply in hours)?

    A. \[ g_A = \gamma g_N \]
    B. \[ g_A = (1-\alpha)gQ/L + \gamma g_L \]
    C. \[ g_A = (1-\alpha)gQ/N + \gamma g_N \]
    D. \[ g_A = (1-\alpha)gQ/L - \gamma g_L \]
    E. \[ g_A = (1-\alpha)gQ/N - \gamma g_N \]

4. Which of the following formulas would you use to calculate efficiency growth rates in the economies **after** 1800 (N = population, L = labor supply in hours) (assuming you know L after 1800)?

    A. \[ g_A = \gamma g_N \]
    **B. \[ g_A = (1-\alpha)gQ/L + \gamma g_L \]
    C. \[ g_A = (1-\alpha)gQ/N + \gamma g_N \]
    D. \[ g_A = (1-\alpha)gQ/L - \gamma g_L \]
    E. \[ g_A = (1-\alpha)gQ/N - \gamma g_N \]
5. A rough approximation for the rate of growth of efficiency in modern economies which depends on the constancy of the real rate of return on capital and the small share of land rents would be

A. \( g_A = \beta g_{w/p} \)
B. \( g_A = \alpha g_r + \beta g_w + \gamma g_s - g_p \)
C. \( g_A = -\beta g_w \)
D. \( g_A = \alpha g_{r/p} + \beta g_{w/p} + \gamma g_{s/p} \)
E. \( g_A = \beta g_w \)

6. Suppose the population of Australia increased from 30,000 to 39,000 between the years 9,000 BCE and 8,000 BCE. What would be the best estimate of the annual rate of productivity growth in that economy?

A. 10%
B. 1%
C. .1%
D. .01%
E. .001%

7. Four features characterized the reproduction pattern in pre-industrial Japan and China. Which of the following is NOT one of them?

A. Almost all women marry.
B. Almost all women married by age 25.
C. Fertility control within marriage.
D. Female infanticide.
E. Almost all men marry.

8. Suppose that in an economy output is growing at 6%, the capital stock is growing at 9%, the labor supply is growing at 3%, and the share of capital, labor and land in national income are respectively 1/4, 1/2, and 1/4. What is the share of the growth of output per worker that is explained by capital accumulation?

A. 25%
B. 33.3%
C. 50%
D. 66.6%
E. 100%
9. Suppose that prices of cotton yarn fell at 3% per year between 1770 and 1850, while the cost of capital rose by 1% per year, the cost of labor by 2%, and land rents by 3%. What is the rate of productivity growth in the industry if the shares in costs of capital returns, wages and land rents were .4, .5 and .1.

A. -1.3%
B. 1.3%
C. 1.7%
D. 3.0%
E. 4.7%

10. 1992 the population of India was roughly 1 billion people, and that of the USA roughly 250 million. What was the relative size of total real output in the USA compared to that of India?

A. 0.50:1
B. 0.75:1
C. 1.00:1
D. 1.25:1
E. 3.50:1

11. Suppose output prices are falling by 2%, the price of capital is going down by 2%, wages are rising by 4% and land rents are rising by 2%. If the shares of capital, labor and land in input costs are .25, .50, and .25, what is the rate of growth of productivity.

A. -2%
B. -1%
C. 0%
D. 1%
E. 2%

12. The event which occurred in England in 1688-9 was called the

A. Glorious Revolution
B. Industrial Revolution
C. Patent Revolution
D. Demographic Revolution
E. French Revolution
13. A patent system to reward innovation first appeared in England in the reign of which monarch?

A. William and Mary (1689-1694)  
**B. Elizabeth I (1558-1603)**  
C. James II (1685-8)  
D. Charles I (1625-49)  
E. Charles II (1660-1685)

14. In a Malthusian economy there is a one time improvement in the technology. The effect of this in the **short run** is:

A. **Wages go up, the birth rate stays the same, and the death rate falls.**  
B. Wages go up, the birth rate and death rate both fall.  
C. Wages go down, the birth rate stays the same, and the death rate falls.  
D. Wages, birth rates and death rates all stay the same.  
E. Wages fall, birth rates and death rates stay the same.

15. In a Malthusian economy there is a one time improvement in the technology. The effect of this in the **long run** is:

A. Wages go up, the birth rate stays the same, and the death rate falls.  
B. Wages go up, the birth rate and death rate both fall.  
C. Wages go down, the birth rate stays the same, and the death rate falls.  
**D. Wages, birth rates and death rates all stay the same.**  
E. Wages fall, birth rates and death rates stay the same.

16. Suppose that in India in 1300 the government improved sanitation in towns by public health measures, and so reduced infant mortality. What will be the long run effect on life expectancy of this change?

A. Increases.  
**B. Stays the same**  
C. Decreases  
D. Increases if wages increase.  
E. Increases if wages decrease.
17. In 1349 the arrival of the Black Death caused death rates in Europe to increase for the next 300 years. The effect of this in the **long run** was:

A. Wages went up, births per 1000 stayed the same, and deaths per 1000 increased.
B. Wages went up, births and deaths per 1000 both increased.
C. **Wages went up, births and deaths per 1000 stayed the same.**
D. Wages, and births and deaths per 1000 all stayed the same.
E. Wages fell, and births and deaths per 1000 all stayed the same.

18. Which of the following is **NOT** an institutional explanation for slow technological advance before 1800

A. The rulers of these societies sought to maximize their own welfare, not GNP
B. The church suppressed various forms of economic activity
C. Serfdom limited incentives to work and save for much of the population
D. **People had not learned to desire more material consumption and so worked little.**
E. Political instability discouraged investment.

19. The best measure of the **level of technological advance** of economies before 1800 is:

A. **The population density.**
B. The percentage of the population living in cities.
C. The amount of money the rulers gave in prizes for innovation.
D. The existence of a patent system.
E. The existence of property rights in knowledge.

20. Suppose that the grain market functioned efficiently in a pre-industrial economy. Suppose we have information for two villages, Ashby de la Zouch and Lower Slaughter, which are 100 miles apart. Which of the following would be the best predictor of the price of grain in Ashby de la Zouch in a given year

A. The yield of grain in Ashby de la Zouch
B. The yield of grain in Lower Slaughter
C. The average yield of grain in both villages
D. **The price of grain in Lower Slaughter**
E. The price of grain in Lower Slaughter and the yield of grain in Lower Slaughter.
Part B: LONG ANSWER (20pts)

1. In a recent book Professor Kenneth Pomeranz of UC Irvine has argued that China was as advanced technologically as Europe in 1800 because the living standards in some regions of China were as high as those in Europe. Using the Malthusian model consider whether this claim is justified.

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