MIDTERM – VERSION #1

A total of 100 points are possible.

Last Name: _____________________________ First Name: ______________________________

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

Part A: Multiple Choice Questions
(18 questions, each of which is worth 4 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>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJECT</td>
<td>530-66-6271</td>
</tr>
<tr>
<td>TEST NO.</td>
<td>1 or 2</td>
</tr>
</tbody>
</table>

**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. Income per capita between the richest and poorest countries in the world now vary by a factor of about
   A. 3 to 1
   B. 4 to 1
   C. 5 to 1
   D. 10 to 1
   E. 25 to 1

2. Which of these is NOT a revolution that anyone alleges occurred in England in 1760-1860.
   A. Industrial Revolution
   B. Agricultural Revolution
   C. Managerial Revolution
   D. Transport Revolution
   E. Demographic Revolution

3. Which of the following factors did NOT play a large role in explaining the rise of population in England between 1760 and 1850.
   A. Women marrying 2 years earlier.
   B. More women married.
   C. More women had children out of marriage.
   D. Decline in mortality rates.
   E. None of the above.

4. Which of the following people did NOT make a significant technological discovery in the Industrial Revolution period?
   A. The Reverend Cartwright
   B. James Watt
   C. George Stephenson
   D. Jethro Tull
   E. James Hargreaves

5. Which of the following parts of the United Kingdom was most transformed in the Industrial Revolution period?
   A. Ireland
   B. Wales
   C. Scotland
   D. Northern England
   E. Southern England
6. Why was it hard for most innovators to make money from their inventions in the Industrial Revolution period?

A. It was hard to raise capital for new firms.
B. The new devices were so simple they were easily copied.
C. Many of the new devices could be used on a very small scale.
D. A and B
E. A and C

7. The process of ending communal rights in agriculture in England was called

A. The privatization movement.
B. The enclosure movement.
C. The Glorious Revolution
D. The agricultural revolution.
E. The capitalist revolution.

8. Suppose that in an economy output is growing at 6%, the capital stock is growing at 4%, the labor supply is growing at 2%, the land supply is fixed and the share of capital, labor and land in national income are respectively ¼, ½, and ¼. What is the rate of growth of output per worker?

A. 0%
B. 2%
C. 3%
D. 4%
E. 5%

9. If the growth rates and shares are as in the previous question what is the growth rate of efficiency?

A. 0%
B. 2%
C. 3%
D. 4%
E. 5%
10. Suppose that in an economy efficiency is growing at 3%. Output prices are increasing at 2% the cost of capital is constant and land rents grow at 4%. The share of capital, labor and land in national income are respectively $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{1}{4}$. What is the growth rate of wages?

A. 2%  
B. 4%  
C. 5%  
D. 6%  
E. 8%

11. Suppose that in the previous question the efficiency growth rate of the economy increases by 2% to 5%. If output prices grow at the same rate what will happen to the rate of growth of wages?

A. Wages will grow at 4% more than before.  
B. Wages will grow at 4% less than before.  
C. Wages will grow at 2% more than before.  
D. Wages will grow at 2% less than before.  
E. Not enough information to tell what happens to output prices or wages.

12. Suppose that the share of capital in the cost of inputs in an industry is 25%, the share of labor 50%, and the share of land 25%. The table below shows the growth rate of prices, capital rental costs, wages and land rents for the industry. In which case is productivity growth fastest?

<table>
<thead>
<tr>
<th>Output Prices</th>
<th>Capital rental costs</th>
<th>Wages</th>
<th>Land rents</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 1%</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>B. -1%</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>C. 1%</td>
<td>-4%</td>
<td>-2%</td>
<td>-4%</td>
</tr>
<tr>
<td>D. -1%</td>
<td>-4%</td>
<td>-2%</td>
<td>-4%</td>
</tr>
<tr>
<td>E. 1%</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

13. Suppose that the share of national income paid to capital owners is .25. If there is an additional social return to capital of $3 for every private $1 of return, then in doing growth accounting a 1% growth of the capital stock will cause what percentage growth in output?

A. Not sufficient information to tell.  
B. .25%  
C. .50%  
D. 0.75%  
E. 1.00%
14. The economy in Europe in 1600-1700 we believe was still a Malthusian economy. This was because:
A. Fertility within marriage was unrestricted.
B. Birth rates were above 30 per thousand.
C. The technology of the society was not improving.
D. The technology of the society was improving only slowly.
E. Agriculture was still the major occupation.

15. 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.

16. 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.

17. Suppose that in France 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.

18. 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.
Part B: LONG ANSWER

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. (28 points)