FINAL – VERSION #1

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 3 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>
<tr>
<td>DATE</td>
<td>HOUR</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. In which century did real interest rates in England fall from about 10% to 5%.

A. 1200-99
B. 1300-99
C. 1400-99
D. 1500-99
E. 1600-99

2. Which of the following factors would we expect to increase interest rates in an economy.

A. Lower growth of income per person
B. Greater income inequality
C. Political Instability
D. Increased Life Expectancies
E. Higher levels of incomes

3. Suppose that the day wage in England in 1600 was 2d. per day, while the wage of workers employed by the year was 100d. If the labor market was competitive what is the implied number of days annual workers worked?

A. 50
B. 100
C. 150
D. 200
E. 300

4. What did Chayanov establish?

A. The share of the population living in cities is an indicator of real incomes.
B. Engels Law - as income increases the share spent on food declines
C. The speed of travel in ancient Rome.
D. Russian peasants worked only about one third of the year
E. The Chayanov Principle - MRPL = w

5. In a Malthusian Economy what is the long run effect of a tax on wages to fund wars?

<table>
<thead>
<tr>
<th>Birth Rate</th>
<th>Death Rate</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Same</td>
<td>Same</td>
<td>Falls</td>
</tr>
<tr>
<td>B. Same</td>
<td>Increases</td>
<td>Falls</td>
</tr>
<tr>
<td>C. Same</td>
<td>Increases</td>
<td>Increases</td>
</tr>
<tr>
<td>D. Falls</td>
<td>Falls</td>
<td>Increases</td>
</tr>
<tr>
<td>E. Falls</td>
<td>Same</td>
<td>Falls</td>
</tr>
</tbody>
</table>
6. Columbus found it difficult to get financial backing for his plan to sail west to Asia because:
   A. Most educated people in Europe in 1492 thought the world was flat.
   B. Scholars at the time knew the earth’s circumference was much larger than Columbus believed.
   C. The War of the Roses had driven up interest rates all across Europe to twice their previous level.
   D. Most people believed the Genoese expedition would get there long before Columbus.
   E. Columbus had a reputation for excessive drinking.

7. Which of the following is **NOT** a prediction of the marginal productivity theory of wages?
   A. There will be no involuntary unemployment.
   B. Without technological advance, population increases will lead to wage reductions.
   C. Inflation will lead to reduced real wages.
   D. Older workers will be paid less than those in their prime years.
   E. Wages will vary across the year for agricultural workers.

8. We believe that even in the pre-industrial period the gap in wages between men and women was based on their marginal products because:
   A. Discrimination was always unprofitable.
   B. The relative wages of men and women in 1300 was the same as in the USA in 2000.
   C. Women earned 80% what men earned.
   D. Most workers were employed in simple manual tasks.
   E. Men’s and women’s relative wages varied by task.

9. The evidence that grain markets in medieval England were **spatially** efficient is that:
   A. Transport costs were low.
   B. Water transport was much cheaper than road transport.
   C. Local grain yields had no independent influence on local prices.
   D. Local grain yields were correlated with national price levels.
   E. Local grain prices rarely deviated from national prices.

10. Grain storage from year to year will only be at economically efficient levels if
    A. There are no ways to earn more than the regular rate of return through storing grain between harvests.
    B. Prices do not fluctuate from year to year.
    C. Prices do not fluctuate more than by a level of 2:1 from year to year.
    D. Prices rise by the amount of the rate of interest and storage costs every 12 months.
    E. Prices fall by the amount of the rate of interest and storage costs every 12 months.
11. The number of children born to a women married at age 20 in Northern Europe in the seventeenth century would be:

A. 2
B. 4
C. 6
D. 8
E. 12

12. Suppose that in initial year income is 100 and the labor supply is 10. Suppose that in the next year income is 107 and the labor supply is 11. What (roughly) is the growth rate of income per person?

A. 7%
B. 10%
C. 3%
D. -3%
E. -6%

13. We believe that either capital investment or productivity advances is the basic source of growing income per person since the Industrial Revolution because:

A. There are no other possible sources of income growth per person.
B. Technological advances are generated by investment.
C. Interest rates have fallen from the period before the Industrial Revolution.
D. High income economies have both a lot of capital per person and high productivity levels.
E. There are external benefits from investing in capital.

14. Suppose that in an economy prices are falling at 2%, while the payments to capital, labor and land are all increasing at 3%. The shares of capital, labor and land in national income are not known. The productivity growth rate is

A. -1%
B. 2%
C. 3%
D. 5%
E. not possible to calculate

15. Malthus wrote his “Essay on a Principle of Population” in 1798 because

A. He wanted to demonstrate the importance of good government in explaining human welfare.
B. He wanted to explain why the Industrial Revolution was increasing real incomes.
C. He wanted to explain why human welfare was independent of the actions of government.
D. He was a supporter of the French Revolution of 1789.
E. He was arguing for increased subsidies to poor families by the government.
16. A formal patent system to reward innovation was first introduced in

A. Paris in 1674  
B. Venice in 1474  
C. England in 1574  
D. England in 1689  
E. The Netherlands in 1589

17. Which of the following is NOT an institutional explanation for slow technological advance before 1760

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.

18. We know that the peoples of the America’s were much less technologically advanced than the invading Europeans circa 1500 because

A. Mayan pyramids were very similar to those of the Ancient Egyptians  
B. The Aztecs practiced human sacrifice  
C. Cortez and a small band of Spaniards were able to conquer the entire Aztec Empire in 1519  
D. There were only about 25 million people in the whole of the Americas in 1492.  
E. The Incas had no written language

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. Life expectancy.  
D. Real wages.  
E. The average age of marriage.

20. Income per capita between the richest and poorest countries in the world in the 1990s varied by a factor of about

A. 2 to 1  
B. 3 to 1  
C. 5 to 1  
D. 10 to 1  
E. 20 to 1
Part B: LONG ANSWER (40pts)

1. Explain the statistical evidence that leads us to believe grain markets were both spatially efficient, and efficient for storage between harvests in England even by the 13th century? (14)
2. Explain why the finding by French and British ships in the 1760s that the people of Tahiti had both a primitive technology and high living standards is surprising given the Malthusian model of income determination. Discuss possible resolutions of this puzzle. (13)
3. Explain the marginal productivity theory of wages. How well does it perform in pre-industrial rural labor markets? (13)