

MIDTERM 1 – VERSION #2

A total of 100 points are possible.

Last Name: _____ First Name: _____

Your Student ID Number: _ _ _ _ - _ _ _ - _ _ _ _

Part A: Multiple Choice Questions

(25 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,

NAME	McComb, Madeline		
SUBJECT	530-66-6271	TEST NO.	1 or 2
DATE		HOUR	

**** 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.

Malthusian Economy

1. Supposedly in the years 1200-1300 there was a period of warming of the European climate that increased crop yields. What would be the long run effect of this improvement on life expectancy in Europe in this period?

- A. Increases.
- B. Stays the same**
- C. Decreases
- D. Increases if wages increase.
- E. Increases if wages decrease.

2. Suppose that the birth rate in France in the seventeenth century was 40 per thousand, and the death rate was given by the function $D(W) = 100 - 10W$, where W was the real wage. What was the life expectancy at birth?

- A. 20
- B. 25**
- C. 35
- D. 40
- E. 50

3. The economy in China in 1100-1800 we believe was still a **Malthusian** economy. This was because:

- A. The average woman gave birth to more than five children.
- 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.

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

- A. He believed that human misery was not explained by bad government.**
- B. He was inspired by the events of the French Revolution of 1789.
- C. He was the vicar in a textile town and was concerned about the rising birth rate caused by the Industrial Revolution.
- D. Real wages in England were falling as a result of the population growth that began in 1760.
- E. George III commissioned the work in connection with the development of Australia as a place to put the surplus British population.

Growth Accounting

5. Suppose the growth rate of output in an economy is 4%, the growth of the capital stock is 4%, the growth of the labor supply is 2%, and the growth of the land supply is zero. The shares of capital, labor and land in national income are respectively .25, .5, and .25. What is the growth rate of **output per unit of land**?

- A. 0%
- B. 1%
- C. 2%
- D. 3%
- E. 4%**

6. In the previous question suppose that the growth rate of the capital stock fell to 2%, while the growth of labor, land and efficiency did not change. How much would that change cause the growth rate of **output per worker** to decline?

- A. 0%
- B. 0.25%
- C. 0.5%**
- D. 1%
- E. 1.5%

7. Which of the following is not a formula for productivity growth estimated from prices

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

8. The following table shows (roughly) the growth rates of output prices, wages, rents, and capital costs for the agricultural sector in Britain between 1700 and 1861. The share of wages in income was 40%, or land rents 40%, and of capital 20%.

Period	Output Prices p	Growth Rate of:		
		Capital Costs r	Wages w	Land Rents s
1700-1861	0.5%	0.5%	0.5%	1.0%

The implied growth rate of efficiency was?

- A. -0.25%
- B. 0%
- C. 0.2%**
- D. 0.25%
- E. 0.5%

9. Suppose the share of national income paid to the owners of land and natural resources was double what it now is, and the share of capital was correspondingly less. Assuming that the rates of growth of inputs are unchanged this would

- A. Slow down the growth rate of income per person**
- B. Not affect the growth rate of income per person
- C. Increase the growth rate of income per person
- D. Slow down the rate of growth of efficiency.
- E. Increase the rate of growth of efficiency.

The Industrial Revolution

10. Which of the following industries did not achieve substantial productivity advance during the Industrial Revolution?

- A. Iron and Steel
- B. Cotton textiles
- C. Road transport
- D. Coal Mining**
- E. Steam Engines

11. Which of the following is NOT an invention of the Industrial Revolution in Britain

- A. The spinning jenny
- B. The atmospheric engine
- C. The flying shuttle
- D. Puddling
- E. The balsamic reduction**

12. Based on the food demands of the British population and the number of workers employed in agriculture, historians deduced that an Agricultural Revolution occurred between 1760 and 1860. They estimated that overall productivity **increased** by how much (roughly)?

- A. 20%
- B. 50%
- C. 100%
- D. 200%**
- E. 300%

13. Despite the rapid growth of output in cotton textiles between 1760 and 1850 the profit rates of individual firms seem to have been modest. This was because

- A. There was surprisingly little technological advance in cotton textiles in the Industrial Revolution.
- B. The technological advances being made were mainly not protected by patent law.**
- C. The output of the industry was a standard commodity
- D. Price of output fell so that the consumers were the main beneficiaries from technological advance.
- E. Textiles did not employ large amounts of capital.

14. Population rose greatly in Britain in the Industrial Revolution period **mainly** because:

- A. Mortality declined
- B. Women on average married two years younger
- C. A higher percentage of women got married
- D. A and B
- E. B and C**

15. What features tended to characterize innovators in Britain in the Industrial Revolution period?

- A. They were generally short, pugnacious men.
- B. They generally profited modestly from their innovations.**
- C. They were mostly trained in universities.
- D. They were generally illiterate.
- E. They tended to come from Scotland

16. What is the odd name in the following list?

- A. Newcomen
- B. Watt
- C. Trevithick
- D. Stephenson
- E. Arkwright**

17. The “Enclosure Movement” of 1760 and later was
- A. The replacement of the open highway by private turnpikes that people had to pay to use.
 - B. The confining of previously free workers to factories in the Industrial Revolution.
 - C. The replacement of communal land rights in England by purely private land tenure.**
 - D. The system of controls to prevent the export of new technology from England.
 - E. The British military strategy leading to the defeat of Napoleon in 1815.
18. The last major reform of the British Patent system prior to the Industrial Revolution was in
- A. 1560
 - B. 1603
 - C. 1625
 - D. 1689**
 - E. 1760
19. Suppose that a census of ages of some population shows 36% of the ages ending in a 0 or a 5. What fraction of the population is likely illiterate?
- A. 16%
 - B. 20%**
 - C. 36%
 - D. 45%
 - E. 64%
20. Suppose that the cotton industry in the Industrial Revolution experienced productivity growth rates of 3% a year. Suppose also the share of the English labor force in cotton textiles was 4%, the share of English output which was from cotton textiles was 5%, and the share of English capital in cotton textiles was 6%. How much overall productivity growth was generated from the cotton industry?
- A. .03%
 - B. .12%
 - C. .15%**
 - D. .18%
 - E. .21%

21. Those who take an “Evolutionary” view of the Industrial Revolution in Britain argue that:
- A. Not much really happened between 1760 and 1860.
 - B. The Netherlands saw the first Industrial Revolution in the years 1550-1650.
 - C. Growth rates were much slower in the Industrial Revolution than in the twentieth century.
 - D. Technology develops through natural selection mechanisms.
 - E. **Given the state of the British economy and society in 1760 the Industrial Revolution was at least highly likely to occur.**
22. We know there cannot have been an Agricultural Revolution alongside the Industrial Revolution because:
- A. **Input prices in agriculture rose little relative to output prices.**
 - B. Yields of crops rose little over these years.
 - C. There were very few mechanical innovations.
 - D. The people such as Jethro Tull who were famous innovators in agriculture had crazy ideas.
 - E. The number of workers in the agricultural sector did not decline between 1760 and 1860.
23. Manufactured exports from Britain rose greatly in the Industrial Revolution period mainly because of
- A. **Rapid population growth**
 - B. Technological advances in cotton textiles
 - C. British success in the wars against the French
 - D. The decline of the Dutch economy
 - E. Technological advances in agriculture
24. The ability of Britain to triple its population in the years 1760-1860 and still have increased real wages stemmed mainly from:
- A. Technological advances in cotton textiles
 - B. Technological advances in agriculture
 - C. The slower growth of population elsewhere in Europe
 - D. The bringing in to cultivation of new land in the Americas
 - E. **C and D**
25. Output grew slowly in British agriculture from 1760 to 1860, even though the population fed by British agriculture grew much faster. Thus output grew by no more than 40%, while the population fed by domestic agriculture increased by more than 100%.
- A. Food consumption per person fell in Britain in the Industrial Revolution era.
 - B. Imports of food made up the difference.
 - C. **British agriculture specialized increasingly in food.**
 - D. Much of the output in 1760 had been lost because of the bad road system
 - E. Britain was a major exporter of food in 1760

