

Homework 8

Due on 21/3/2023, by 23:00

This assignment is optional but **STRONGLY RECOMMENDED**. If you do not submit the answers till the deadline, the score of your final exam will substitute for the score for this assignment. Submit only the correct letter for each task on eLearn under 'Quizzes' within 'COR2100-Economics and Society G9-10-11-12'. Note that the actual text of questions and answers is not supposed to appear on the eLearn quiz. You have unlimited attempts. The system is programmed to credit your last attempt. Be informed that if you submit an attempt and afterwards you re-open the quiz, you must submit your answers **AGAIN**. Otherwise, the system will grade the unfinished attempt with 0 (because it is the last one) and there is **NOTHING** I can do to fix this after the fact. Late homework or homework submitted outside eLearn cannot be accepted as this would violate SMU official policy for fairness and transparency in grading. This assignment is protected by Grade Insurance™: If the assignment's average turns out to be below 75, an equal amount of bonus points will be given to every work, for the average to become 75. Direct any homework questions to your TA.

1. An economy grows at 13% per year. After how many years will its current GDP double?
 - A. After around 2 years.
 - B. After around 4 years.
 - C. After around 6 years.
 - D. After around 8 years.
 - E. After around 10 years.
2. Which of the following is most likely to be a result of the exponential nature of GDP growth?
 - A. Small differences between growth rates lead to small differences in GDP in the future.
 - B. Small differences between growth rates lead to large differences in GDP in the future.
 - C. Large differences between growth rates lead to small differences in GDP in the future.
 - D. None of the above.
3. Which of the following countries has exhibited higher than USA's average growth rate between 1960 and 2010?
 - A. Singapore.
 - B. South Korea.
 - C. China.
 - D. All of the above.
 - E. None of the above.
4. Economy A currently has half of economy B's GDP. If the two economies have the equal growth rate, what percentage of economy B's GDP will economy A have in one year from now?
 - A. Around 40%.
 - B. Around 45%.
 - C. Around 50%.
 - D. Around 55%.
 - E. Around 60%.

5. Which of the following best describes the “Malthusian Cycle”?
- A. A rise in GDP pc reduces population, which makes scarce resources scarcer and further increases GDP pc.
 - B. A rise in GDP pc reduces population, which then reduces workforce, thus decreasing GDP pc.
 - C. A rise in GDP pc increases population, which then increases scarce resources and further increases GDP pc.
 - D. A rise in GDP pc increases population, which then makes scarce resources scarcer, decreasing GDP pc.
6. Which of the following helped societies detach from Malthus’ theory of fertility?
- A. Elimination of income inequality.
 - B. Improvement in technology.
 - C. Elimination of poverty.
 - D. Improvement in medicine.
7. Which of the following is most likely to decrease a country’s aggregate saving?
- A. An increase in interest rate.
 - B. The expectation that income tax will increase in the future.
 - C. The expectation that the country’s GDP will decrease in the future.
 - D. None of the above.
8. Which of the following is/are a reason(s) why some economies experience catch-up growth?
- A. They benefit from imported technologies developed in more advanced economies.
 - B. They increased the efficiency of their production process through investment.
 - C. They decreased the levels of corruption, so foreign investors would feel safer doing business there.
 - D. All of the above.
9. Which of the following statements is/are accurate?
- A. Technological improvement may prevent capital from exhibiting diminishing marginal product.
 - B. Economies of scale may prevent capital from exhibiting diminishing marginal product.
 - C. Diminishing marginal product is a result of depreciation.
 - D. Diminishing marginal product is a result of excess saving.
10. Which of the following is most likely to be the result of a decrease in a country’s GDP per capita?
- A. Reduction in poverty.
 - B. Reduction in income inequality.
 - C. Increase in poverty.
 - D. Increase in income inequality.
11. Which of the following is more likely to raise labor productivity in the long-run?
- A. Increase in working hours.
 - B. Investment in research and development.
 - C. Both A and B.
 - D. None of the above.

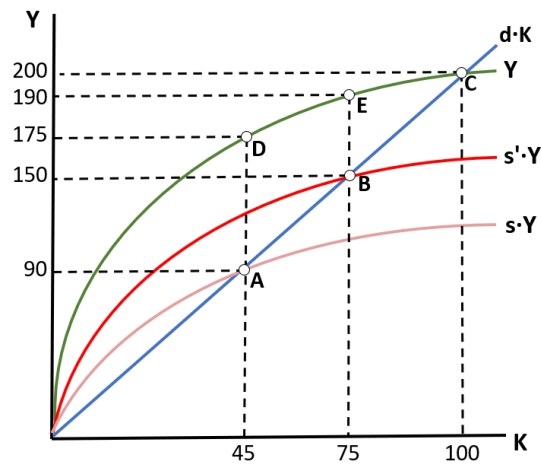


Figure 8.1: The aggregate production function with respect to capital for a country which experiences an increase in saving rate.

12. According to figure 8.1, at which level of capital was the economy's growth rate equal to zero, before the increase in saving rate?
 - A. Around 0.
 - B. Around 45.
 - C. Around 75.
 - D. Around 100.
 - E. None of the above.
13. According to figure 8.1, at which level of output was the economy's growth rate equal to zero, before the increase in saving rate?
 - A. Around 90.
 - B. Around 150.
 - C. Around 175.
 - D. Around 190.
 - E. Around 200.
14. According to figure 8.1, by how much has the steady-state capital increased due to the increase in saving rate?
 - A. It did not increase.
 - B. By around 25 units.
 - C. By Around 30 units.
 - D. By around 45 units.
 - E. By around 75 units.
 - F. By around 100 units.
15. According to figure 8.1, by how much has the steady-state output increased due to the increase in saving rate?
 - A. It did not increase.
 - B. By around 10 units.
 - C. By around 15 units.
 - D. By around 25 units.
 - E. By around 40 units.
 - F. By around 60 units.
 - G. By around 100 units.

16. According to figure 8.1, by how much has the steady-state growth rate increased due to the increase in saving rate?
- It did not increase.
 - Around 10%.
 - Around 20%.
 - Around 30%.
 - Around 40%.
 - Around 50%.
17. According to figure 8.1, how much is steady-state consumption, after the increase in saving rate?
- Around 0.
 - Around 20.
 - Around 40.
 - Around 60.
 - Around 80.
 - Around 100.
18. According to figure 8.1, for which of the following levels of capital does the economy show negative growth rate, after the increase in saving rate?
- Below 45.
 - Below 75.
 - Above 45.
 - Above 75.
19. In the Solow model, which curves will shift if technology improves?
- Y .
 - sY .
 - dK .
 - sY and dK .
 - sY and Y .
 - sY , Y and dK .
20. Two economies are described by identical Y , sY , dK curves, which yield a steady-state of 80. Economy A has $Y = 62$ and economy B has $Y = 75$. Which of the following is true?
- Next year, Economy A will grow faster than Economy B.
 - Next year, Economy B will grow faster than Economy A.
 - Next year, Economy A and B will grow at the same pace.
 - Next year, Economy A and B will not grow at all.

Good afternoon! There are two kinds of people who will claim that they try to help us in life. Those who lower the bar for us, so we can clear it easier; and those who train us to jump higher. The first ones, we tend to love them. The second ones, change our life. Kosmas