Homework 2 due Feb 2 2024

Due Feb 2 at 11:59pm **Points** 16 **Questions** 16
Available Jan 25 at 12:01am - Feb 2 at 11:59pm **Time Limit** None
Allowed Attempts Unlimited

Instructions

You need to answer 12 out of 16 questions correctly to get credit for the assignment. You may make multiple attempts.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	1 minute	16 out of 16

Correct answers are hidden.

Score for this attempt: **16** out of 16
Submitted Jan 25 at 3:40pm
This attempt took 1 minute.

Question 1

1 / 1 pts

If the per-worker production function is given by $y = k^{1/2}$, the saving ratio is 0.4, and the depreciation rate is 0.2, then the steady-state ratio of output per worker (y) is:

- 8

- 2

Question 2

1 / 1 pts

If a hurricane destroys a large portion of a country's capital stock but the saving rate is unchanged, the Solow model predicts that output will grow and that the new steady state will approach:

- a higher level of output per person than before.
- the same level of output per person as before.
- a lower level of output per person than before.
- the Golden Rule level of output per person.

Question 3

1 / 1 pts

The steady-state level of capital occurs when the change in the capital stock (Δk) equals:

- the population growth rate
- 0
- the saving rate
- the depreciation rate

In the Solow growth model, the steady state level of output per worker would be higher if the _____ increased or the _____ decreased.

- (●) saving rate; depreciation rate
- ( ) population growth rate; saving rate
- ( ) depreciation rate; population growth rate
- ( ) population growth rate; depreciation rate

Question 5

1 / 1 pts

If $y = 2k^{1/2}$, population growth is 2 percent, there is no technological progress, 8 percent of capital depreciates each year, and a country saves 20 percent of output each year, then the Golden Rule level of capital per worker is:

- ( ) 16
- ( ) 4
- (●) 100
- ( ) 25

Question 6

1 / 1 pts

If the per-worker production function is given by $y = 4k^{1/2}$ and the

- 0.1
- 0.4
- 0.5
- 0.2

Question 7

1 / 1 pts

Starting from a steady-state situation, if the saving rate decreases, the rate of growth of capital per worker will:

- increase until the new steady state is reached.
- decrease until the new steady state is reached.
- increase and continue to increase unabated.
- decrease and continue to decrease unabated.

Question 8

1 / 1 pts

The Golden Rule level of capital accumulation is the steady state with the highest level of:

- savings per worker.
- output per worker.

Question 9

1 / 1 pts

If an economy with no population growth or technological change has a steady-state MPK of 0.2 and a depreciation rate of 0.1, then the steady-state capital stock:

- is greater than the Golden Rule level.
- Is zero
- (selected) is less than the Golden Rule level.
- equals the Golden Rule level.

Question 10

1 / 1 pts

In a Solow model with technological change, if population grows at a 2 percent rate and the efficiency of labor grows at a 3 percent rate, then in the steady state, total output grows at a _____ percent rate.

- 2
- (selected) 5
- 3
- 1

The Golden Rule level of the steady-state capital stock:

- will be reached automatically if the saving rate remains constant over a long period of time.
- will be reached automatically if each person saves enough to provide for his or her retirement.
- (selected) requires a choice of a particular saving rate.
- should be avoided by an enlightened government.

Question 12

1 / 1 pts

Assume two economies are identical in every way except that one has a lower population growth rate. According to the Solow growth model, in the steady state the country with the lower population growth rate will have _____ level of output per person and _____ rate of growth of output per person compared to the country with the higher population growth rate.

- a lower, a higher
- a higher, a lower
- (selected) a higher, the same
- a lower, the same
- the same, a lower

Question 13

1 / 1 pts

With population growth at rate *n* but no technological change, the Golden Rule steady state may be achieved by equating the marginal product of capital (MPK) to the:

- population growth rate
- population growth rate minus depreciation rate
- sum of population growth rate and depreciation rate
- depreciation rate

Question 14

1 / 1 pts

Investment causes the capital stock to ____; depreciation causes the capital stock to ____.

- fall, fall
- fall, rise
- rise, fall
- rise, rise

Question 15

1 / 1 pts

growth rate of
output per worker at rate:

- δ.
- n .
- (n + δ).
- 0.

Question 16

1 / 1 pts

According to the Solow model, persistently rising living standards can only be explained by:

- saving rates
- capital accumulation
- technological progress
- population growth

Quiz Score: **16** out of 16