

## HE2002 Intermediate Macroeconomics Quiz 2

### Instructions:

- Do the following 15 multiple-choice questions in 60 minutes.
- There is only one answer per question. Each question has same marks.
- If you do think extra assumptions need to be made, or multiple answers are possible, please ask for a A4 paper from the invigilator and write down your explanations, together with your name and matric number. Submit it by the end of the exam.

1. Which of the following production functions is NOT constant return to scale:

(a)  $F(K, N) = 2K + N$

(b)  $F(K, N) = (K^2 + N^2)^{\frac{1}{2}}$

(c)  $F(K, N) = \min(K, 2N)$

**(d)** all of above are constant return to scale

2. If we rewrite the production function  $F(K/N, 1)$  into  $f(K/N)$ , which of the following production function satisfies that  $f(K/N)$  is decreasing return to  $K/N$ :

(a)  $F(K, N) = K + 2N$

**(b)**  $F(K, N) = 2 * K^{1/3} N^{2/3}$

(c) none of above

(d) both of above

3. Assume that every month the average student in Japan and the average student in China buy the quantities and pay the prices indicated in the following table. Using the PPP method and Japanese prices, the ratio of living standard in China to that in Japan is:

(a) 0.94

	Food		Transportation Services	
	Price	Quantity	Price	Quantity
Japan	600	60	150	80
China	RMB15	50	RMB3	100

(b) 0.93

(c) 0.9375

(d) 0.935

(e) none of above is correct.

4. In the IS-LM-PC model, ?? is assumed to be exogenous and investment does not depend on ??.

(a) I and T

(b) G and x

(c) G and T

(d) C and r

(e) none of above is correct.

5. If the output is too high, to achieve the medium run equilibrium, the central bank will

(a) increases policy rate.

(b) reduces policy rate.

(c) increase money supply.

(d) increases inflation rate.

6. When a government reduces its deficits by increasing taxes, the central bank should

(a) decrease the policy rate.

(b) increase the policy rate.

(c) increase inflation rate.

(d) decrease money supply.

7. Assume that the economy is initially operating at the natural level of output. An reduction in the price of oil will cause which of the following in the medium run?

(a) an increase in the interest rate

(b) an increase in output and an increase in the aggregate price level

(c) an increase in output and an increase in the interest rate

(d) an increase in unemployment, a decrease in the nominal wage and a decrease in the aggregate price level

**(e)** none of above

8. Assume that the economy is initially operating at the natural level of output. A reduction in taxes will cause

(a) an increase in the real wage in the medium run.

(b) a reduction in the real wage in the medium run.

(c) no change in the nominal wage in the medium run.

(d) ambiguous effects on the real wage in the medium run.

**(e)** none of these

9. Assume that a country experiences a permanent reduction in its saving rate. Which of the following will occur as a result of this reduction in the saving rate?

(a) a permanently slower growth rate of output

(b) no permanent effect on the level of output per capita

**(c)** a permanently lower level of output per worker

(d) a permanently slower growth rate of output but no permanent effect on the level of output per capita

10. In the absence of technological progress, we know with certainty that an increase in the saving rate will cause which of the following?

- (a) increase steady state consumption
- (b) decrease steady state consumption
- (c) have no effect on steady state consumption
- (d) increase steady state consumption only if the increase in saving exceeds the increase in depreciation
- (e) increase steady state consumption only if the increase in saving is less than the increase in depreciation

11. Suppose two countries are identical in every way with the following exception. Economy A has a higher rate of depreciation than economy B. Given this information, we know with certainty that

- (a) steady state consumption in A is higher than in B.
- (b)** steady state consumption in A is lower than in B.
- (c) steady state consumption in A and in B are equal.
- (d) steady state growth of output per worker is higher in A than in B.
- (e) none of these

12. When steady state capital per worker is below the golden-rule level, we know with certainty that an increase in the saving rate will

- (a) decrease consumption in both the short run and the long run.
- (b) increase consumption in both the short run and the long run.
- (c) increase consumption in the short run, and decrease it in the long run.
- (d) decrease consumption in the short run, and increase it in the long run.
- (e)** none of these

13. Consider an economy without technological progress and population growth. The production function is given as  $Y = K^{1/4}N^{3/4}$ . Both the saving rate and the capital depreciation rate are assumed to be 0.1. The steady state output per worker is:

- (a) 0.5
- (b)** 1.0

- (c) 1.5
- (d) none of above is correct

14. Consider an economy without technological progress and population growth. The production function is given as  $Y = K^{1/3}N^{2/3}$ . The capital depreciation rate are assumed to be 0.1. Which of the following saving rate delivers the highest consumption per worker in the steady-state:

- (a)** 1/3
- (b) 1/2
- (c) 2/3
- (d) none of above is correct

15. Consider an aggregate production function that takes form  $F(K, N) = 2K + N$ . Assume saving rate is 0.02 and capital depreciation rate is 0.1. Assume the economy is initially in the steady-state till time  $t$ . The depreciation rate then decreases from 0.1 to 0.08 onwards ( $\delta_j = 0.08, j > t$ ). Please go ahead calculate the capital and output per worker in  $t + 2$ :

- (a) 0.33
- (b)** 0.34
- (c) 0.35
- (d) 0.25
- (e) none of these.