

## 2018 AP<sup>®</sup> MACROECONOMICS FREE-RESPONSE QUESTIONS

2. Assume the economy of Ucheland is currently at full employment. The government of Ucheland reduces the tax rate on household interest earnings.
- (a) What will happen to private savings in Ucheland?
  - (b) Draw a correctly labeled graph of the loanable funds market, and show the effect of the change in private savings identified in part (a) on the equilibrium real interest rate.
  - (c) Given the real interest rate change identified in part (b), answer the following questions.
    - (i) What is the short-run effect on aggregate demand? Explain.
    - (ii) What is the long-run effect on potential real gross domestic product in Ucheland? Explain.
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3. Countries face trade-offs between producing consumer goods and producing capital goods.
- (a) Country X takes one hour to produce a unit of consumer goods and two hours to produce a unit of capital goods. Country Y takes two hours to produce a unit of consumer goods and four hours to produce a unit of capital goods. Which country has a comparative advantage in the production of consumer goods? Explain.

The following table shows labor-market data for Country X.

Employed	180,000
Frictionally unemployed	10,000
Structurally unemployed	5,000
Cyclically unemployed	5,000
Not in the labor force	100,000

- (b) Calculate the unemployment rate in Country X. Show your work.
- (c) Calculate the labor force participation rate in Country X. Show your work.
- (d) Draw a correctly labeled graph of the production possibilities curve for Country X, with consumer goods on the horizontal axis and capital goods on the vertical axis. Indicate a point on your graph, labeled Z, that reflects the current level of unemployment.

**STOP**

**END OF EXAM**

# AP<sup>®</sup> MACROECONOMICS 2018 SCORING GUIDELINES

## Question 3

**5 Points (1 + 1 + 1 + 2)**

(a) 1 point:

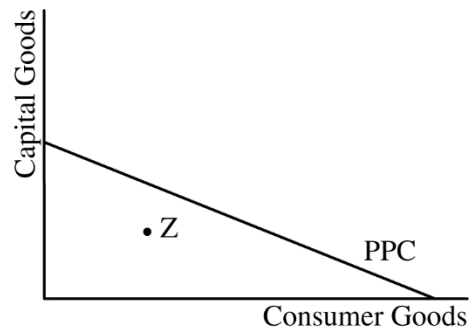
- One point is earned for stating that neither country has a comparative advantage in producing consumer goods and for explaining that the opportunity cost of producing 1 unit of consumer goods is the same for both countries (which is 1/2 a unit of capital goods).

(b) 1 point:

- One point is earned for correctly calculating the unemployment rate as 10 percent ( $20,000/200,000 \times 100 = 10\%$ ).

(c) 1 point:

- One point is earned for correctly calculating the labor force participation rate as 66.67 percent ( $200,000/300,000 \times 100 = 66.67\%$ ).



(d) 2 points:

- One point is earned for drawing a correctly labeled graph of the production possibilities curve (PPC).
- One point is earned for correctly showing point Z below the PPC.