MOT1421
Economic Foundations
Week Five

MACROECONOMICS:
INTRODUCTION & NEOCLASSICAL MODEL
SELF-TEST

The self-assessment consists of 10 Questions. Each Question has a weight of 1. Your maximum score therefore is 10. A score of 6 means that you have successfully passed the test.

Question 1

a. In 1960, real GDP of Spain was euro 173.1 billion (in prices of 2015). In 2019, Spanish real GDP was euro 1192.4 billion (in prices of 2015). Calculate the average annual compound rate of growth of Spanish real GDP during 1960-2019 (in two decimals).
b. In 1970, real GDP of Greece was euro 85.3 billion (in prices of 2015). In 2008, Greek real GDP was euro 239.7 billion (in prices of 2015). Calculate the average annual compound rate of growth of Greek real GDP during 1970-2008 (in two decimals).
c. Average real income per world citizen was $1273 in 1870. Average real income per world citizen increased to $ 14574 in 2016. Calculate the average annual compound rate of growth of average real income per world citizen during 1870-2016 (in two decimals).

Question 2

a. Nominal GDP increased by 4%. Real GDP increased by 3.2%. Determine the rate of inflation.
b. Real GDP increased by 2.1% and the rate of inflation was 1.4%. Determine the growth rate of nominal GDP.
c. The nominal interest rate is 5%. The rate of inflation is 3.5%. Determine the real rate of interest.
d. Nominal wage growth is 1.2%. The rate of inflation is 2.1%. Determine the growth rate of real wages.

Question 3

What is fiscal policy? Discuss two instruments of fiscal policy and their likely impacts on GDP, unemployment and inflation.

Question 4

What is monetary policy? Discuss two instruments of monetary policy and their likely impacts on GDP. Unemployment and inflation.

Question 5

What is Gross Domestic Product? Give two precise definitions.

Question 6

Consider the following (neoclassical) market for loanable funds:

(1) $LF^S = 95 + 0.25\,r$

(2) $LF^D = 100 - r$

where $LF^S =$ the supply of loanable funds (in billions of euros); $LF^D =$ the demand for loanable funds (in billions of euros); and *r* = the real rate of interest (per cent).

Calculate the equilibrium real interest rate and equilibrium loanable funds supply and demand.

Question 7

Keynes argued that the LF^S-curve and the LF^D-curve are not independent: if one curve shifts, the other curve must shift as well. Explain Keynes' argument.

Question 8

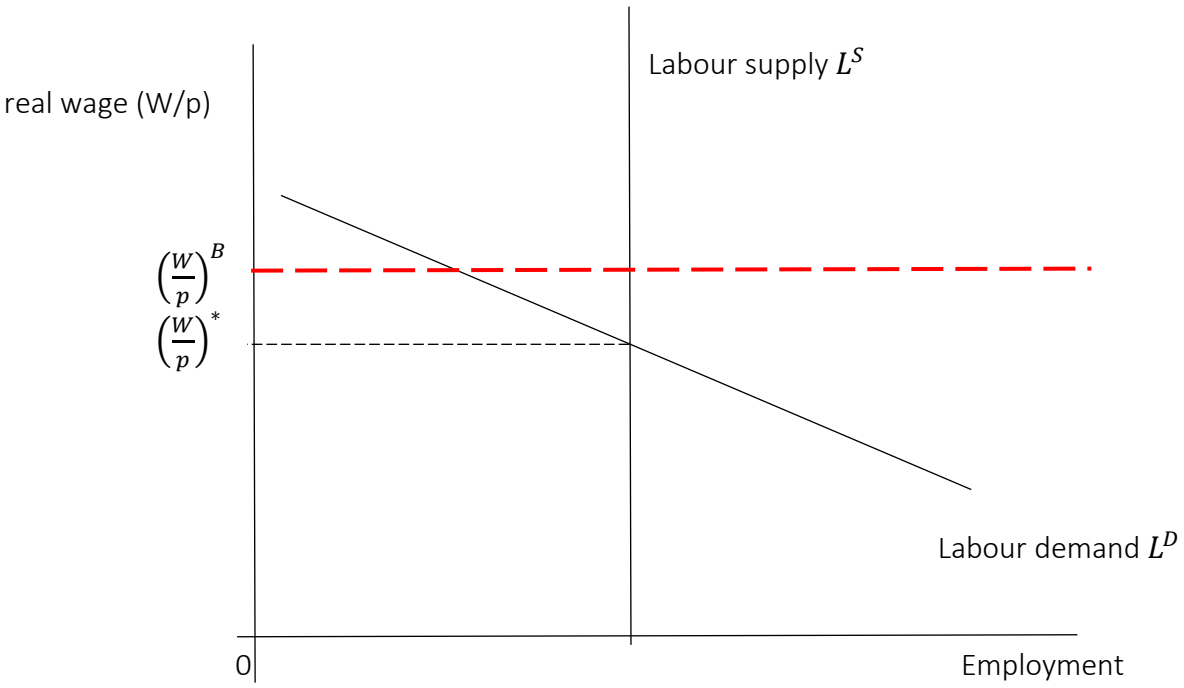
In the neoclassical macroeconomic model, fiscal stimulus leads to crowding out. Explain what is meant by crowding out and how this works.

Question 9

In the neoclassical macroeconomic model, monetary policy must follow a monetary policy rule. Explain the monetary rule and illustrate your explanation with a numerical example.

Question 10

Consider the following Figure:



The Neoclassical Labour Market with Collective Wage Bargaining

The wage rate $\left(\frac{W}{p}\right)^B$ is determined by collective bargaining.

a. Explain why there will be unemployment in this market.
b. Explain how neoclassical theory proposes to reduce unemployment.
c. Is there another way in which unemployment can be reduced in this market, if we assume that the macroeconomy is not operating at full capacity?

End of self-test Week 5