

Summer 2022 Exam

EC1B5

Macroeconomics I

Suitable for all candidates

Instructions to candidates

You must attempt ALL questions. There are 5 questions in Section A, each worth 8 marks, and three questions in Section B, each worth 20 marks. Where appropriate, make use of graphs and equations in your answers.

Time Allowed	Reading Time:	<i>None</i>
	Writing Time:	<i>2 hours</i>
You are supplied with:		<i>No materials</i>
You may also use:		<i>No further material</i>
Calculators:		<i>Calculators are not allowed</i>

Section A (8 marks each)

- A1.** Give three reasons why banks are an important intermediary between borrowers and lenders.
- A2.** Some economists conducted an accounting exercise to understand why income (GDP) per worker is different across countries (see Table below) in 2010.

Country	Income per Worker in 2010	Average Years of Schooling	% of U.S. Physical Capital Stock per Worker in 2010	Income per Worker If Technology Were at U.S. Level
(1)	(2)	(3)	(4)	(5)
United States	82,359	13.1	100.0	SAME
United Kingdom	67,025	9.8	65.8	61,548
South Korea	54,315	11.8	87.7	74,496
Spain	54,539	10.4	83.9	68,684
Mexico	27,625	9.1	33.5	47,725
Brazil	15,975	7.5	16.9	35,045
China	12,961	8.2	14.9	34,881
India	9,010	5.1	8.9	24,071
Ghana	4,928	7.1	4.2	21,502
Afghanistan	3,980	4.2	3.7	16,818
Dem. Rep. of the Congo	628	3.5	0.8	9,625

Explain how this table is constructed. Use the table to compare the factors that account for income per worker in South Korea and Spain.

- A3.** The Happy Land is an isolated island with three sectors: agriculture, manufacturing, and services. This year, the total revenue for the service sector was \$25 million. The total revenue of the agricultural sector was \$20 million, and its output was sold to the manufacturing and service sectors. The total revenue for the manufacturing sector was \$30 million. The total consumption and investment expenditure was \$40 million. Explain whether you have enough information to compute the GDP of Happy land using the three approaches. If yes, what is the GDP? If not, what information would you need for each approach?
- A4.** Suppose there are only three countries in the world: country A, B and C. Suppose there is an increase in the demand for goods produced in country A compared to country B. Discuss what will happen to the exchange rate and foreign reserves in country B.
- A5.** What are the three features of an economic recession? Given one example of a fiscal policy that can help to bring the economy out of recession.

Section B (20 marks each)

Where appropriate, make use of graphs and equations in your answers.

- B1.** The unemployment rate is one of the most important statistics for the economy with important implications for government policy.
- a. Explain the meaning of the unemployment rate and how it is measured. **[3 marks]**
 - b. Explain why we cannot understand unemployment if we assume a competitive labour market with perfect information. **[5 marks]**
 - c. Explain how the efficiency wage theory and the search theory of unemployment can be used to understand unemployment. **[6 marks]**
 - d. Some economists, however, argue that the unemployment rate does not reflect the true state of the economy. For example, during the CoVid-19 pandemic, the unemployment rate only increased slightly from 3.8% to 4.5% from 2019 to 2020 while GDP shrunk by 10%, which is the largest recorded decline for decades. How would you reconcile the small rise in the unemployment rate with such a large decline in GDP? **[6 marks]**
- B2.** Economic growth is one of the most important topics among economists and policy makers. In one of the most cited economic papers, a Nobel Laureate stated that once one starts to think about economic growth, it is hard to think about anything else. There are different views about what causes or hinders economic growth. For each of the four statements, explain why they are true using the Malthusian theory or the Solow growth model. Use equations or/and figures if appropriate.
- a. Technological progress does not always lead to economic growth. **[4 marks]**
 - b. Technological progress is not needed for economic growth in the short run but is needed for economic growth in the long run. **[6 marks]**
 - c. Increasing land may or may not be good for economic growth. **[4 marks]**
 - d. Increasing capital may or may not be good for economic growth. **[6 marks]**
- B3.** The inflation rate in the U.K. was rather stable at around 2% throughout the last two decades. On January 19th, 2022, the headline news in the U.K. was that the inflation rate rose to 5.4%.
- a. Explain the meaning of “the inflation rate is 5.4%”. **[2 marks]**
 - b. Explain why this increase in inflation has different effects across different groups in the economy. Give examples of those who are not affected, those who gain, and those who lose. **[6 marks]**
 - c. As a response to the headline news, the Bank of England raised the Bank Rate from 0.25% to 0.5% on February 3rd, 2022. Explain the logic behind this policy. **[5 marks]**
 - d. Some economists argue that the Bank of England has played an important role in keeping inflation stable for the last two decades. Explain their argument. **[3 marks]**
 - e. Explain why raising the interest rate, as discussed in part c, could be a problem if the UK wanted to maintain a fixed exchange rate with the United States. **[4 marks]**