Summer 2019 examination

EC100
Economics A

Suitable for 2018/19 candidates and resit candidates from 2016/17 and 2017/18

Instructions to candidates

You must attempt ALL questions. There are 15 questions in Section A, each worth 3 marks, and three questions in Section B, (two questions are worth 18 marks each and one question is worth 19 marks). The questions in Section A are multiple choice questions, while those in Section B require a written answer. The questions in Section A have only one correct answer which should be marked on the separate answer sheet for the multiple choice questions. The answers for the questions in Section B should be written in the booklet

Time Allowed	**Reading time:**	None
	Writing time:	2 hours

You are supplied with:	A separate answer sheet for the multiple choice questions
You may also use:	No further material
Calculators:	Calculators are **not** allowed in this examination

Section A (multiple choice questions each worth 3 marks)

A1.   According to the method of measuring GDP, which of the following will increase the current level of GDP in the U.K.?
   a) A fall in capital depreciation in the U.K..
   b) More U.K. firms decide to spend a higher fraction of profit to increase wage payment.
   c) A British professor decides to give a paid lecture at LSE instead of Harvard.
   d) All of the above

A2.   Some economists predict that UK unemployment will increase in 2020 after Brexit. Which of the following will support this prediction?

   a) There will be a fall in immigration
   b) Many people will leave the U.K.
   c) Many firms will leave the U.K.
   d) All of the above

A3.   There are only two countries in the world: country A and B. They both have a flexible exchange rate. Country B used to be the only country that had a drug to cure cancer but this year Country A discovers a new drug which is better than the existing drug produced by country B. Which of the following can happen?

   a) Country A's currency appreciates against country B's currency
   b) Real wages in country A increase
   c) Employment in country A increases
   d) All of the above.

A4.   The Happy Land is an isolated island with three sectors: agriculture, manufacturing and services. This year, the total revenue for the service sector was $10 million of which $4 million was spent on buying raw materials from the agricultural sector. The output of the agricultural sector was $10 million and its output was sold to the manufacturing and service sectors. The total revenue for the manufacturing sector was $20 million. The total labour income was $15 million and the total consumption expenditure was $15 million. What is the GDP of the Happy Land?

   a) The GDP is $15 million.
   b) The GDP is $30 million.
   c) The GDP is $36 million.
   d) The GDP is $40 million.

A5.   Which of the following statements is CORRECT?

   a)   According to the Malthusian theory of growth, the switch from one-child policy to two-child policy can reduce the long run growth rate of income per capita in China.
   b)   According to the Solow model, the switch from one-child policy to two-child policy can reduce the long run growth rate of income per capita in China.
   c)   According to the Malthusian theory of growth, the switch from one-child policy to two-child policy can reduce the long run income per capita in China.
   d)   All of the above

A6.   Some economists conduct a development accounting exercise to understand why income per worker is so different across countries (see Table below).

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

Based on the above table, which of the following statement is **CORRECT**?

   a)   When comparing across two countries, a country with higher level of human capital and physical capital always has higher income per worker.
   b)   If technology is freely available to all countries in the world, then all countries except the U.K. will experience an increase in income per capita.
   c)   South Korea has higher technology level than Spain.
   d)   All of the above

A7.   Which of the following is predicted by the quantity theory of money?

    a) The growth rate of real GDP is the difference between the growth rate of money supply and the inflation rate.
    b) The ratio of money supply to nominal GDP is constant.
    c) The growth rate of money supply is the same as the growth rate of nominal GDP.
    d) None of the above

A8.   Suppose there are only two countries in the world: country A and country B. Suppose country A has a flexible exchange rate. Which of the following statements is definitely **CORRECT**?

    a) If country A's currency depreciates, then country B's net export must decrease.
    b) If country A's current account increases, then country A's financial account must decrease.
    c) All of the above
    d) None of the above

A9.   When an economy goes into recession, which of the following fiscal policy can be used to help the economy recover?

    a) Conduct an open market purchase to lower the Fed fund rate to stimulate investment.
    b) Reduce taxes and increase government expenditure to stimulate consumption expenditure.
    c) Devalue the currency so as to lower the real exchange to stimulate net exports.
    d) All of above

A10.   Which of the following statements is **CORRECT**?

    a) Real business cycle theory argues that a decrease in oil price causes recession.
    b) Monetary theory argues that a decrease in money supply causes expansion.
    c) Keynesian theory argues that pessimism leads to lower spending and causes recession.
    d) None of the above

A11.   Which of the following is a property of economic fluctuations?

    a) Economic fluctuations are changes in the growth rate of GDP.
    b) Unemployment and real consumption are counter-cyclical.
    c) If GDP is growing this quarter, it will most likely fall in the following quarter.
    d) All of the above.

A12. Country A has pegged its currency to that of country B. There is a fall in the demand for country A's output. Which of the following statement is **CORRECT**?

   a) Country A's currency appreciates against country B's currency
   b) There is a fall in exports from Country A to country B because its currency appreciates against country B's currency
   c) There is no change in the nominal exchange rate between the two countries.
   d) None of the above

A13. Suppose there are only two countries in the world: country A and country B. Suppose also there only two consumption goods: good X and good Y. Good X is produced in country A while good Y is produced in country B. All consumption goods produced are consumed this year. Country A consumes £5 billion worth of good X and £4 billion worth of good Y. Country B consumes £2 billion worth of good X and £3 billion of good Y. Which of the following statements is definitely **CORRECT**?

   a) The current account balance is "-£2 billion" for country A and "£2 billion" for country B.
   b) The net export is "-£2 billion" for country A and "£2 billion" for country B.
   c) The financial account balance is "£2 billion" for country A and "£2 billion" for country B.
   d) All of the above

A14. Which of the following policies can help to increase the Fed fund rate?

   a) The Fed conducts an open market sale.
   b) The Fed reduces the reserve requirement.
   c) The Fed reduces the interest rate paid on the reserve balances held by commercial banks.
   d) None of above

A15. Suppose the labour supply curve is upward sloping. Which of the following will definitely take place if there is a fall in labour demand?

   a) Employment falls and unemployment rises.
   b) Employment falls and output falls.
   c) Employment falls and wages fall.
   d) All of the above.

Section B (18 marks for B16 and B17, 19 marks for B18, answers to be written in the booklet.)

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

B16.   [18 marks in total] Many central banks, including the Bank of England, have adopted a monetary policy of targeting a low, positive and stable inflation rate. In addition, the Bank of England also supports the Government's objectives for growth and employment.

a)   Explain why it is good to target a "low, positive and stable" inflation rate. [6 marks]

b)   What is a recession and what are its characteristics? [4 marks]

c)   When the U.K. economy goes into recession, how should the Bank of England set the official Bank rate to help bring the economy out of recession? Explain the mechanism and refer to the characteristics you listed in part (b). [8 marks]

B17.   [18 marks in total] Various surveys show that unemployment is among one of the most unhappy states people experience. Tackling unemployment is top priority for government.

a)   Describe how a simple search theory that focuses on the behaviour of job seekers explains the factors that can contribute to unemployment. [6 marks]

b)   An alternative theory of unemployment is due to wage rigidities. Describe how efficiency wage can explain wage rigidity. [6 marks]

c)   Some economists argue that higher unemployment benefit can increase unemployment while others argue it can decrease unemployment. Explain each of their argument based on the two theories you explained in part (a) and (b). [6 marks]

B18.   [19 marks in total] The Table that follows shows a growth accounting exercise for the United States.

Time Period	Growth (%) Resulting from Physical Capital (K)	Growth (%) Resulting from Human Capital (H)	Growth (%) Resulting from Technology (A)	Annual Growth Rate of GDP per Hour Worked
	(4)	(5)	(6)	(7)
1950–1959	0.89	0.28	2.37	3.54%
1960–1969	0.89	0.17	2.20	3.26
1970–1979	0.88	0.01	1.22	2.11
1980–1989	0.86	0.30	0.45	1.61
1990–1999	0.84	0.36	0.87	2.07
2000–2007	0.99	0.19	1.29	2.47

a)   First explain to the President how this table is constructed from the data. Then use the findings to explain to the President why the contribution of physical capital to economic growth is different in different decades. [6 marks]

b)   The economic advisors to the President are debating which of the following two policies is good for growth: (1) give a 5% tax credit to firms investing in physical capital; (2) give a 5% subsidy to firms conducting research and development (R&D). Explain the Solow model to the President and discuss the effects of these two policies based on the model. [8 marks]

c)   The President argues that the main reason China grew at a much faster rate than the U.S. during 1980-2000 was because China was copying U.S. technology. You disagree and think China will slow down. Use the Solow model and information provided by the Table to explain why you disagree, then explain to the President that the Solow model predicts that China will slow down. [5 marks]