

Examination: 11049

Principles of Economics

Winter Semester 2010 / 2011

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You are allowed to use a non-programmable calculator (in accordance with the instructions given by the examination office) and a translating dictionary from your native language to English (without any notes written into it). **All** of the **twelve** (12) examination questions must be answered. ~~This examination consists of **four** (4) pages and must be completed within 120~~ minutes.

Question 1

Answer the following questions.

- (a) Explain the concept "Barriers to Entry" and give three examples.
- (b) Explain the difference between an industry characterized as Monopolistic Competition and one that is an Oligopoly.

Question 2

The Foreign Exchange Market (FOREX) is the largest marketplace in the world with a daily trading volume of over \$3 trillion. In Frankfurt am Main the US dollar exchange rate is € 0.74631 / \$ and in New York the exchange rate is US \$ 1.34552 / €.

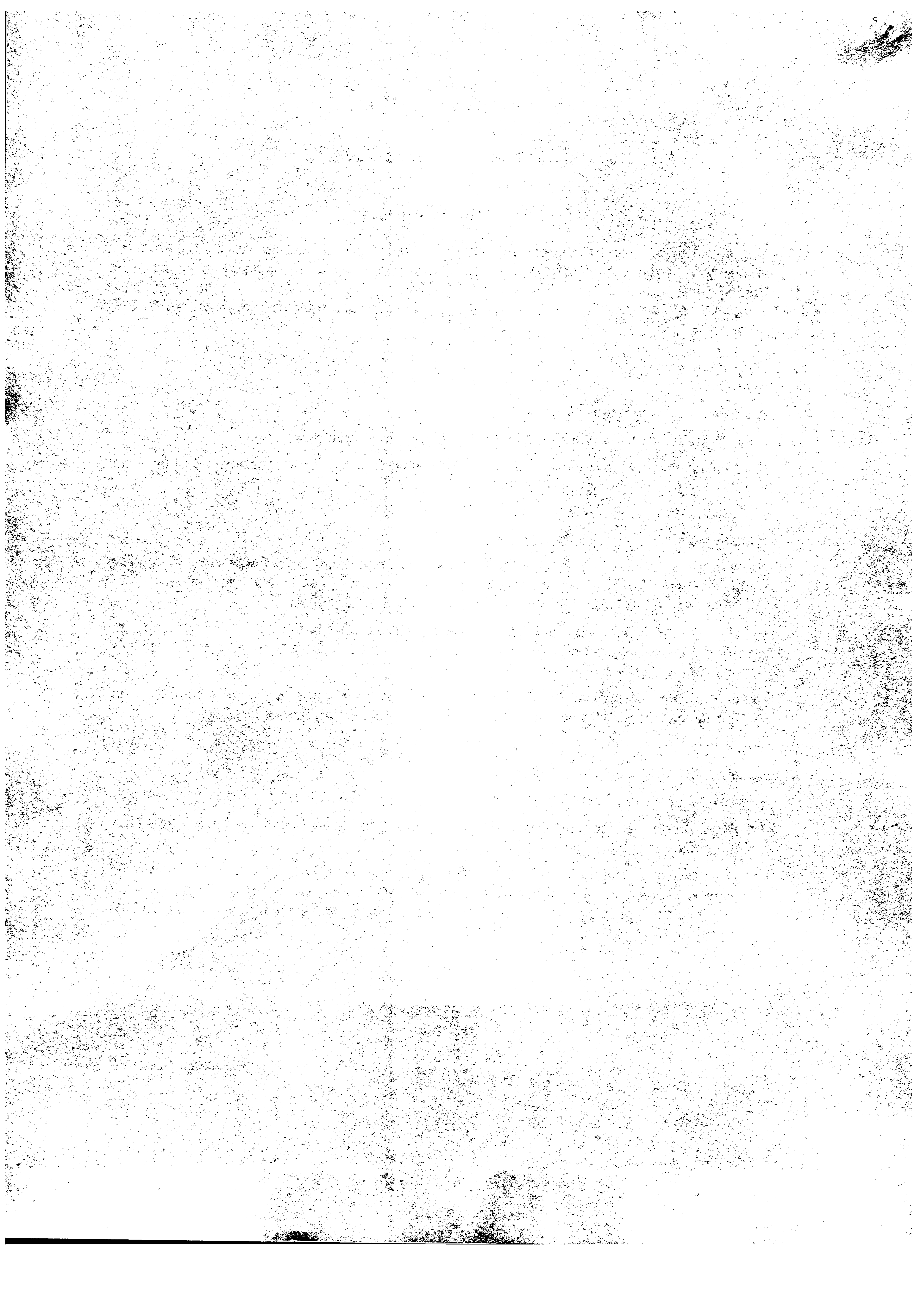
- (a) If you are a foreign exchange trader at Barclays Bank PLC in London with € 100 million, do you see an opportunity for a profit today? Explain exactly what you would do if it is possible to earn a profit from trading.
- (b) In the story described above, does the trading involve "arbitrage" or "speculation" in foreign currencies? Explain the difference between these two types of trading.

Question 3

In most countries the Central Bank conducts Monetary Policy.

- (a) Explain how open market operations are conducted by a central bank and how this affects the money supply.
- (b) If a country is experiencing a rather severe increase in inflation, explain the "practical" aspects to consider when suggesting the use of fiscal policy. Can monetary policy be used to combat this problem? How would each of these two macroeconomic policy instruments be applied?

Please turn to Page 2



Question 4

Using the data in the table obtained from the US Department of Commerce Bureau of Economic Analysis calculate the following:

Year	Nominal GDP (\$, billion)	Real Chained GDP (2000)
2006	13,398.9	12,976.2
2007	14,061.8	13,228.9
2008	14,369.1	13,228.8
2009	14,119.0	12,880.6
2010		

- (a) The real growth rate of the US economy in 2009.
- (b) The Price Inflation in the US economy in 2009 measured using the Implicit GDP Deflator.

Question 5

The Economist's Big Mac Index is based on the theory of Purchasing Power Parity (PPP).

	Big Mac prices*		Implied PPP of the dollar	Actual dollar exchange rate July 21st	Under(-)/over(+) valuation against the dollar, %
	in local currency	in dollars			
United States	\$ 3.73	3.73			
Argentina	Peso 14.0	3.56	3.75	3.93	-5
Australia	A\$ 4.35	3.84	1.17	1.33	3
Brazil	Real 8.71	4.91	2.33	1.77	31
Britain	£ 2.29	3.48	1.63	1.52	-7
Canada	C\$ 4.17	4.00	1.12	1.04	7
Chile	Peso 1,750	3.34	4.69	5.26	-40
China	Yuan 13.2	1.95	3.54	6.78	-48
Colombia	Peso 8,200	4.39	2,196	1,868	18
Costa Rica	Colones 2,000	3.83	536	522	3
Czech Republic	Koruna 67.6	3.73	18.1	19.7	-8
Denmark	DK 28.5	4.90	7.63	5.81	31
Egypt	Pound 13.0	2.28	3.48	5.70	-39

- (a) In Chile the Big Mac costs Peso 1,750, that price would seem inexpensive to American tourists. Explain this statement in terms of the Actual and the Implied PPP exchange rates.
- (b) Explain the concept of the Real Exchange Rate. What is the value of the Real Exchange Rate between the US dollar and the Peso?

Please turn to Page 3



Question 6

Market equilibrium occurs at the equilibrium price where the quantity demanded equals the quantity supplied, $Q_x^d = Q_x^s$.

- (a) When there is an increase in demand in a market, assuming the supply curve remains constant, what happens to the equilibrium price and quantity?
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- (b) What do we mean by the "Comparative Statics Analysis" of markets? How does it differ from a "Dynamic Analysis"?
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Question 7

One of America's greatest mathematical economists, Professor Irving Fisher, developed what later became known as the "Fisher Equation."

- (a) The Fisher Equation shows that the nominal interest rate is made up of two components. What are these two components and what does the Fisher Equation tell us about nominal interest rates?
- (b) Explain in detail why the nominal interest rate measures the monetary cost per unit of holding money per unit of time.

Question 8

The Cost Curves are U-Shaped: ATC and MC.

- (a) Explain the relationship between the ATC curve and the MC.
- (b) Under what conditions are these cost curves U-Shaped?

Question 9

Of all the concepts in Macroeconomics the single most important measure of economic performance is Gross Domestic Product (GDP).

- (a) What is the difference between GDP and GNP? Which concept is the most important for public policy making regarding unemployment?
- (b) What is the difference between National Income and Personal Income?

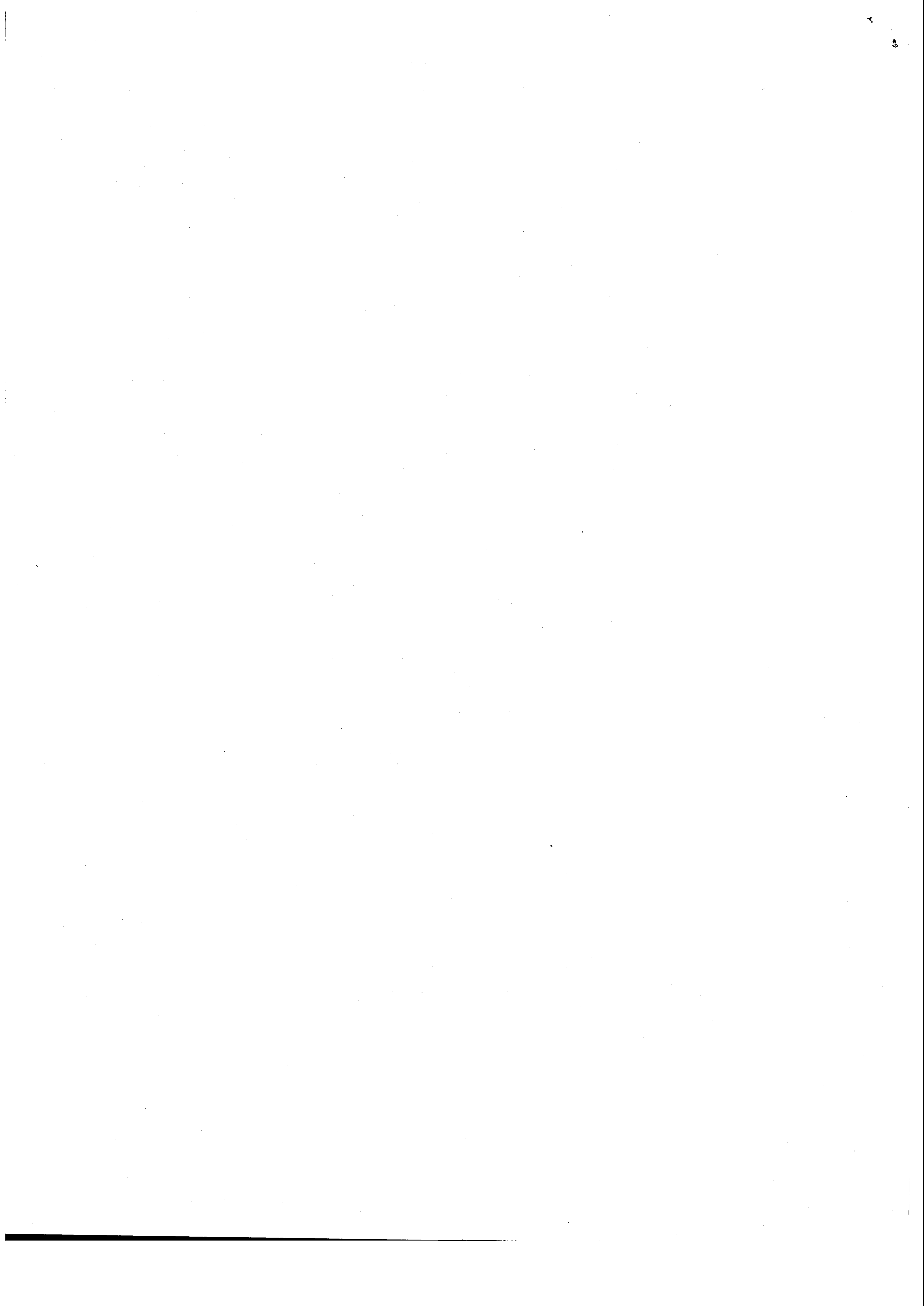
Question 10

Consider a company that produces the product x . It has the following Cobb-Douglas production function and it produces and sells Q_x^s units per time period:

$$Q_x^s = \tau L^{0.45} K^{0.45} \text{ where } \bar{\tau} = 1.1 \text{ and } K = 1500$$

- (a) Explain the "Law of Diminishing Returns" in terms of the input Labor.
- (b) Explain "Returns to Scale" using the production function in this example.

Please turn to Page 4



Question 11

Consider an economy that has a $MPC = 0.85$ and is currently in equilibrium at $GDP = 15,000$.

- (a) If the government were to increase public spending by 500, what would be the new level of equilibrium GDP?
- (b) ~~If the government were to increase public spending by 500 and at the same time raise taxes by the same amount, what would be the new level of equilibrium GDP?~~

Question 12

In microeconomics there are two important laws.

- (a) State the "Law of Demand".
- (b) Explain the concept of the "Law of Diminishing Returns".

This is the End of the Examination.

BEST OF LUCK!

