EXAMINATION

23 April 2010 (am)

Subject CT7 — Business Economics
Core Technical

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*

2. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*

3. *Mark allocations are shown in brackets.*

4. *Attempt all 37 questions. From question 27 onwards begin each answer on a separate sheet.*

5. *Candidates should show calculations where this is appropriate.*

Graph paper is NOT required for this paper.

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.

1 The need to employ workers with certain skills may decline even if the industry as a whole is not in decline. This form of unemployment is called:

A Structural.
B Demand-deficient.
C Regional.
D Technological.

[1½]

2 An increase in the natural rate of unemployment will cause:

A the long run and short run Phillips curves to shift to the right.

B the long run and short run Phillips curves to shift to the left.

C the long run Phillips curve to shift to the right and the short run Phillips curves to shift to the left.

D the long run Phillips curve to shift to the left and the short run Phillips curves to shift to the right.

[1½]

3 All other things being equal which of the following events would cause the value of Country A's currency to appreciate against the value of Country B's currency?

A A fall in the interest rate of Country A with an even bigger fall in Country B's interest rate.

B A fall in the interest rate of Country A with constant interest rate in Country B.

C A rise in the interest rate of Country A with an even bigger rise in Country B's interest rate.

D A fall in the interest rate of Country A with a rise in the interest rate of Country B.

[1½]

4 All other things being equal, which one of the following statements is always TRUE?

A An appreciation of a country's exchange rate will increase its import expenditure and decrease its export revenues.

B An appreciation of a country's exchange rate will increase its import volumes and decrease its export volumes.

C A depreciation of a country's exchange rate will decrease its import volumes and decrease its export volumes.

D A depreciation of a country's exchange rate will decrease its import expenditure and increase its export revenues.

[1½]

5 In Country A government expenditure is £350 billion, tax revenue is £275 billion, aggregate saving is £300 billion and aggregate investment is £250 billion. The net exports of Country A are equal to a:

A surplus of £125 billion.
B deficit of £125 billion.
C surplus of £25 billion.
D deficit of £25 billion.

[1½]

6 If a country has a current account deficit then:

A Gross Domestic Product is greater than Gross National Product.

B Gross Domestic Product is less than Gross National Product.

C Gross Domestic Product is the same as Gross National Product.

D We cannot say whether Gross Domestic Product differs from Gross National Product from this information.

[1½]

7 The transactions demand for money will be greater the:

A higher the price level.
B lower the level of real income.
C higher the rate of interest.
D higher the speculative (asset) demand for money.

[1½]

8 If an excess demand for money exists in the economy, then as the money market moves towards equilibrium we would expect the short term interest rate to:

A rise as Treasury bill prices rise.
B fall as Treasury bill prices rise.
C fall as Treasury bill prices fall.
D rise as Treasury bill prices fall.

[1½]

9 According to Keynesian analysis the adoption of an expansionary fiscal policy will result in:

A an increase in aggregate demand and a reduction in real output and unemployment.

B an increase in aggregate demand, real output and unemployment.

C an increase in aggregate demand and real output and a reduction in unemployment.

D a reduction in aggregate demand and real output and an increase in unemployment.

[1½]

10 In the event of a recession in the economy, automatic fiscal stabilizers:

A raise government expenditure and reduce tax revenue.
B raise government expenditure and raise tax revenue.
C reduce government expenditure and raise tax revenue.
D reduce government expenditure and reduce tax revenue.

[1½]

11 If firms in a perfectly competitive industry are making excess profits in the short run then the long run effect will be to:

A increase the output of the existing firms and the industry.
B reduce the output of the existing firms and the industry.
C reduce the output of the industry and increase the output of the existing firms.
D reduce the output of the existing firms and increase the output of the industry.

[1½]

12 A monopolist can sell 25 units of output per day for a price of £11.50 each and 26 units of output per day for a price of £11.25 each. The marginal revenue earned from the 26th unit sold is:

A £11.50.
B £11.25.
C £5.00.
D £0.25.

[1½]

13 For a firm in long run equilibrium in an industry characterized by monopolistic competition:

A average total cost equals marginal cost.
B average revenue is greater than marginal cost.
C price is greater than average total cost.
D average total cost is less than marginal cost.

[1½]

14 The kinked demand curve model of oligopoly is based upon the assumption that:

A a firm's competitors match both its price increases and price reductions.

B one firm in the industry sets the price for all other firms.

C a firm's competitors match its price reductions but not its price increases.

D the price charged by a firm can either rise or fall depending on what happens to its competitors' prices.

[1½]

15 The demand equation for Good X is $Q_d = 15 - 0.5P$ and the supply equation for Good X is $Q_s = 3 + 2P$, where P is the price. When the price is £6 there will be a:

A surplus of Good X and the price will rise.
B shortage of Good X and the price will fall.
C surplus of Good X and the price will fall.
D shortage of Good X and the price will rise.

[1½]

16 Which of the following events would shift the demand curve for Good X, which is a normal good, to the right?

A A decrease in the price of Good X.
B An increase in the price of a substitute good.
C An increase in the price of a complementary good.
D A decrease in consumer income.

[1½]

17 According to the law of diminishing marginal utility, the total satisfaction that a consumer gets from consuming Good X will:

A rise at an increasing rate as consumption of Good X increases.
B rise at a decreasing rate as consumption of Good X increases.
C fall at an increasing rate as consumption of Good X increases.
D fall at a decreasing rate as consumption of Good X increases.

[1½]

18 Adverse selection refers to a situation where:

A having insurance makes an individual less careful.

B having insurance makes an individual more careful.

C the people taking out the insurance are those who have the highest risk.

D the people taking out the insurance are those who have the highest risk aversion.

[1½]

19 A consumer's demand curve for Good X is represented by the equation

$$Q_{dx} = 50 - 0.2P_x$$

where Q_{dx} is the quantity of Good X demanded and P_x is the price of Good X.

A producer's supply curve for Good X is represented by the equation

$$Q_{sx} = 10 + 0.6P_x$$

Where Q_{sx} is the quantity of Good X supplied and P_x is the price of Good X.

Demand and supply are in equilibrium when:

A quantity is 20 and price is 150.
B quantity is 30 and price is 100.
C quantity is 35 and price is 75.
D quantity is 40 and price is 50.

[1½]

20 If Goods X and Y are substitutes, a fall in the price of Good X causes the:

A quantity demanded of Good X to increase and the demand curve for Good Y to shift toward the right.

B quantity demanded of Good X to increase and the demand curve for Good Y to shift toward the left.

C demand curve for Good X to shift to the right and the demand curve for Good Y to shift toward the left.

D demand curve for Good X to shift to the right and the demand curve for Good Y to shift toward the right.

[1½]

21 The total revenue from the sale of a good will fall if:

A price rises and demand for the good is price elastic.
B price rises and demand for the good is price inelastic.
C consumer income falls and the good is inferior.
D consumer income falls and the good is a Giffen good.

[1½]

22 A consumer always spends one quarter of his income on travel. What are his price elasticity of demand for travel and his income elasticity of demand for travel respectively:

A 1 and 0.25.
B 0 and 0.25.
C 1 and 0.
D 0 and 1.

[1½]

23 Vertical product differentiation refers to differences between products which reflect:

A different consumer's tastes but not different quality products.
B same quality products.
C different quality products reflecting different production costs.
D different varieties offered at the same price.

[1½]

24 Third degree price differentiation refers to the situation where:

A A firm charges customers different prices according to how much they purchase.

B Consumers are grouped into independent markets and a separate price is charged in each market.

C A firm charges each customer the maximum price he/she is prepared to pay.

D Different firms charge different prices for the same product.

[1½]

25 The total output and the average physical product of the variable factor increase as long as the marginal physical product of the variable factor is:

A positive.
B above its average physical product.
C increasing.
D below its average physical product.

[1½]

26 When the owner of a patented product allows another firm to produce it for a fee, the arrangement is referred to as a:

A Franchise.
B Joint venture.
C Merger.
D Licensing agreement.

[1½]

27 (a) Describe THREE factors which could cause an upward shift in the supply curve for a product.

(b) Provide an example in each case.

[4]

28 The demand for Good X is 300 units when its price is £4. Assume that as a result of a price fall, the demand for the good increases to 400 units and the sales revenue falls by £400.

(i) (a) Calculate the price of Good X after the fall.

(b) Calculate the price elasticity of demand with respect to the fall in its price.

[2]

(ii) State whether elasticity will change with a downward movement along a linear demand curve. [1]

Assume that the cross-price elasticity of demand for Good Y which is a complement to Good X is −1.5.

(iii) Calculate the proportionate change in the demand for Good Y as a result of the fall in price of Good X. [1]

[Total 4]

29 A company producing a health drink called Boost has plans to carry out a new advertising campaign to publicise Boost's properties of bringing vitality and health to the consumer.

(i) Describe with reference to an appropriate diagram, the effects of advertising on the demand for Boost. [4]

(ii) Explain how advertising can achieve these effects. [2]

[Total 6]

30 (i) List FOUR factors which form a firm's "marketing mix". [2]

(ii) Identify which of the factors are likely to be more significant in developing a marketing strategy for a firm manufacturing a high quality luxury product. [2]

[Total 4]

31 (i) Describe two reasons for firms experiencing "economies of scale". [2]

(ii) Describe two reasons for firms experiencing "diseconomies of scale". [2]

[Total 4]

32 In a country two electricity generating companies, Company X and Company Y supply electricity to the whole country. The companies have been operating for a long period of time in a stable market. Assume that Company X believes its rival will produce Q_Y units of electricity.

(i) Draw a diagram to illustrate the total market demand curve *Dm* and the demand curve facing Company X, D_X. Add to the diagram, the marginal revenue curve facing Company X, MR_X and the marginal cost curve MC. [3]

(ii) Denote the output Q_X Company X will produce and the price P_X that it will charge in order to maximise its profit. [1]

Assume now that Company X believes that Company Y will double its output to $2Q_Y$.

(iii) Show on your diagram the new demand curve facing Company X D_{X2} and the new marginal revenue curve facing Company X MR_{X2}. [2]

(iv) Denote the new output Q_{X2} that Company X will produce and the new price P_{X2} that it will charge in order to maximise its profit. [1]

[Total 7]

33 The following information is extracted from a country's National Statistical Bureau:

	€ billions
Wages and salaries	350
Mixed incomes	38
Net income from abroad	15
Gross profit/rent and interest of firms, government and other institutions	150
Taxes on products	71
Subsidies on products	3
Depreciation	65

(i) Calculate the Gross Domestic Product at market prices. [1]

(ii) Calculate Gross National Income at market prices. [1]

(iii) Calculate the Net National Income at market prices. [1]
[Total 3]

34 Countries A and B produce just two Goods X and Y. Assume that for a given amount of land and capital, the following number of hours of labour is required to produce one unit of each good:

	Good X	*Good Y*
Country A	60	10
Country B	120	12

(i) Calculate the opportunity cost of producing each good in each country. [2]

(ii) State which country would export each of the goods if the two countries engage in trade. [1]

(iii) Assuming that the price equals marginal cost, state the range of possible exchange ratios (terms of trade) of Good Y for Good X. [1]
[Total 4]

35 (i) (a) List three categories of withdrawals from the circular flow of income.

(b) List three categories of injections of expenditure into the circular flow of income.

[3]

In a closed economy with no taxes, assume that government expenditure is increased by £50m and that firms increase investment by £100m. The marginal propensity to consume domestically produced goods is 2/3.

(ii) Calculate the increase in the equilibrium level of GDP. [2]

[Total 5]

36 (i) Discuss the view that governments can control inflation by controlling the money supply. [6]

(ii) Describe the problems associated with this method of controlling inflation. [4]

[Total 10]

37 (i) Describe the reasons why countries can gain from free trade. [5]

(ii) Discuss the arguments for and against trade restrictions. [5]

[Total 10]

END OF PAPER