INSTITUTE AND FACULTY OF ACTUARIES

Curriculum 2019

SPECIMEN EXAMINATION

Subject CB2 – Business Economics

Time allowed: Three hours and fifteen minutes

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. Answers to questions 1–26 should be indicated on the Multiple Choice Answer Sheet included in your booklet. From question 27 onwards begin your answer to each question on a new page.*

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 Opportunity cost is always:

A equal to total revenue minus total variable cost
B constant
C the cost in terms of the best forgone alternative
D equal to a firm's supernormal profits

[1½]

2 Good X is an inferior good. A rise in consumer income when the supply curve for Good X is positively sloped will cause which one of the following?

A The demand for Good X to fall and the price of Good X to fall.
B The demand for Good X to fall and the price of Good X to rise.
C The demand for Good X to rise and the price of Good X to fall.
D The demand for Good X to rise and the price of Good X to rise.

[1½]

3 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]

4 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]

5 Which of the following is NOT a motive for advertising by an existing firm in an industry?

A To make the demand for the product more price elastic.
B To shift the demand for the firm's product to the right.
C To increase barriers to entry.
D To increase sales and so help the firm exploit economies of scale.

[1½]

6 Constant returns to scale means that as a firm's scale of production is increased:

A Long run total costs remain constant
B Total output remains unchanged
C Long run average costs and long run marginal costs are equal
D Fixed costs remain constant

[1½]

7 During the winter season, a hotel has fixed costs of £4,000 per week, total variable costs of £5,000 per week and prospective total revenue of £4,500 per week. In such circumstances a profit maximising hotel will:

A close down during the winter season since its revenue is insufficient to cover its variable costs.

B close down during the winter season since its revenue is insufficient to cover its fixed costs.

C stay open during the winter season as it will add £500 per week to its profits.

D stay open during the winter season as the expected revenue of £4,500 is greater than its fixed costs.

[1½]

8 In a perfectly competitive market, the typical firm cannot affect the price of its output, and so it maximises profits or minimises losses when marginal cost is:

A less than the price.
B greater than the price.
C equal to the price.
D below average variable cost.

[1½]

9 Which one of the following is NOT a barrier to entry into a monopoly market?

A Significant economies of scale.
B Heavy potential advertising costs.
C Large capital requirements.
D Constant returns to scale.

[1½]

10 The prisoner's dilemma, applied to a situation involving two firms operating in an oligopoly market structure, illustrates that:

A each firm will not take account of its rival's reactions when making its decision.

B the price set by one firm will not influence the price of the other firm.

C in avoiding the worst possible outcome the firms will fail to reach the best possible outcome.

D in avoiding the worst possible outcome the firms will succeed in reaching the best possible outcome.

[1½]

11 A negative externality in production may arise when:

A The marginal social cost is greater than the marginal private cost
B The marginal cost is greater than the marginal private benefit
C The marginal private benefit is less than the marginal social cost
D None of the above

[1½]

12 An increase in the wage rate paid to workers is likely to cause:

A A leftward shift of the demand curve
B A leftward shift of the supply curve
C A movement along the supply curve
D A movement along the demand curve

[1½]

13 An example of a planned or command economy would be:

A France
B UK
C Cuba
D Poland

[1½]

14 In the circular flow of income model:

A savings, taxes and investment are withdrawals.
B savings, imports and taxes are withdrawals.
C investment, government expenditure and imports are injections.
D investment, exports and consumption are injections.

[1½]

15 A country with a population of 38 million has 32 million in employment and 2 million unemployed. What is the unemployment rate (rounded to one decimal point)?

A 5.9%
B 5.3%
C 5.0%
D 6.3%

[1½]

16 Which one of the following statements about the demand for money is FALSE?

A The demand for money is negatively related to the interest rate.
B The demand for money is positively related to national income.
C The demand for money is negatively related to the price level.
D The demand for money is positively related to real income.

[1½]

17 Which of the following is most likely to be a potential source of cost push inflation?

A an increase in labour productivity
B an increase in consumer expenditure
C an increase in direct taxes
D a depreciation of the domestic currency

[1½]

18 Which one of the following statements is NOT associated with the monetarist argument concerning the so called vertical long run Phillips curve?

A At a given rate of unemployment there will be a unique rate of inflation.
B If the actual rate of unemployment is above the natural rate, then we would expect to observe a decrease in the rate of wage and price inflation.
C If the actual rate of unemployment is below the natural rate of unemployment, then we would expect to observe an increase in the rate of wage and price inflation.
D In the long run, the government can influence the rate of inflation.

[1½]

19 The narrow money supply is £200 billion, the public's cash to deposit ratio is 0.5 and the broad money supply is £400 billion. This means that the reserve to deposit ratio of the banking system is:

A 2
B 0.25
C 0.5
D 1

[1½]

20 Which one of the following situations will lead to the most crowding out following an increase of government expenditure by selling bills and bonds outside the banking sector?

A The demand for money is interest elastic and private investment is interest inelastic.
B The demand for money is interest inelastic and private investment is interest elastic.
C The demand for money and private investment are both interest inelastic.
D The demand for money and private investment are both interest elastic.

[1½]

21 In the event of a slowdown in the economy automatic stabilisers would be expected to:

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

[1½]

22 Other things being equal, which one of the following statements is always TRUE?

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

[1½]

23 Points on the IS curve show combinations of real Gross Domestic Product (GDP) and the rate of interest where:

A the economy is at full employment.
B the money market is in equilibrium.
C aggregate demand equals aggregate supply so that the product market is in equilibrium.
D both the product and money markets are in equilibrium.

[1½]

24 According the Marxist theory of value, the value of a product is determined by the:

A ratio of labour to capital in the production process.
B number of hours of labour used to produce the product.
C marginal product of labour.
D quantity of capital plus quantity of labour employed.

[1½]

25 Which of the following statements is correct in relation to the Austrian School of economic thought?
The Austrians:

A focus on the role of uncertainty.
B believe that consumers always behave rationally and their preferences can be modelled.
C recommend greater regulation.
D believe that monetary policy can always be used successfully to reduce interest rates resulting in full employment and low inflation.

[1½]

26 Which one of the following statements about real variables in the economy is FALSE?

A If nominal Gross Domestic Product (GDP) rises by 5 per cent then the real GDP may have risen, fallen or remained unchanged.
B If the money supply falls by 20% and the price level falls by less than 20% then the real money supply falls.
C An increase in real income will lead to a rise in the demand for real money balances.
D Real interest rates are positive if the expected rate of inflation is greater than the nominal rate of interest.

[1½]

27 (i) Describe what an indifference curve and a budget line show.

[2]

(ii) Draw a fully labelled diagram for Good A and Good B to show a set of indifference curves, I_1, I_2 and I_3 and a budget line for a consumer. Show the optimal achievable bundle that the consumer can consume using the letter O.

[2]

(iii) Show on your diagram the effect of an increase in income and the optimal consumption bundle O'.

[1]

[Total 5]

28 Assume that the market for wheat is initially in equilibrium. An unpredicted period of poor weather affects the wheat harvest adversely.

(i) Discuss, with the use of a diagram, the effect of the poor weather on the resultant equilibrium price and quantity traded within the market.

[2]

(ii) Explain how a buffer stock of wheat could be used by the government to counteract the problem identified in part (i).

[2]

[Total 4]

29 (i) Describe, with the use of an example, the difference between implicit and explicit costs for a firm.

[2]

(ii) Discuss why a car manufacturing firm may experience economies of scope.

[3]

[Total 5]

30 (i) Describe, with the use of an example, third-degree price discrimination.

[2]

(ii) Explain, with the use of a diagram, why price discrimination is not always socially undesirable.

[3]

[Total 5]

31 Evaluate the suitability of using legal restrictions or regulatory bodies in controlling water pollution.

[8]

32 The following table contains output and expenditure data for an economy.

	£billions
Consumption expenditure (at market prices)	260
Investment expenditure (at market prices)	70
Government spending (at market prices)	85
Exports of goods and services (at market prices)	20
Imports of goods and services (at market prices)	25
Net income from abroad	5
Indirect taxes	60
Capital depreciation	20

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

(ii) Calculate the Gross Domestic Product at basic prices. [1]

(iii) Calculate the value of Gross National Income at market prices. [1]

(iv) Calculate the value of Net National Income at market prices. [1]

(v) Explain what will happen to the UK Gross Domestic Product as measured in US dollars if the pound appreciates against the US dollar. [1]

[Total 5]

33 Using an IS/LM diagram describe the likely effects of a monetary contraction on both the domestic interest rate and the level of economic activity.

[4]

34 (i) Explain what is meant by cost push inflation, stating the causes of this type of inflation. [2]

(vi) Draw a diagram with aggregate supply and demand curves to show the initial effect of cost push inflation. [3]

[Total 5]

35 Assume that the real wage is initially above the equilibrium level, due to trade union power. With the aid of a diagram showing equilibrium and disequilibrium unemployment, explain the effects of a supply side policy that reduces the power of labour and restores the real wage back to its equilibrium level.

[5]

36 (i) With the aid of a diagram explain the relationship that the Phillips curve attempts to show.

[2]

(ii) Outline the "supply side" (i.e. cost push) interpretation of the Phillips curve.

[3]

[Total 5]

37 (i) Define demand deficient unemployment and explain the solutions that have been advocated by Keynesian economists to reduce demand deficient unemployment. [4]

(ii) Discuss what is meant by crowding out effect of fiscal policy. [2]

(iii) Discuss four mechanisms through which crowding out can occur. [4]

[Total 10]

END OF PAPER