

# **INSTITUTE AND FACULTY OF ACTUARIES**



## **EXAMINATION**

27 April 2020 (am)

### **Subject CB2 – Business Economics Core Principles**

Time allowed: Three hours and fifteen minutes

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 solution to the economic problem of deciding which goods to produce requires:

- A a choice between the production of consumer goods and the sacrifice of alternatives.
- B the establishment of freedom of entry and exit.
- C the establishment of a system of market prices.
- D a decision to be made on the degree to which capital will be used in the production process rather than labour.

[1½]

**2** In a free market economy, the basic function of the price mechanism is to:

- A provide a means of allocating resources.
- B ensure that all consumer wants are satisfied.
- C enable the government to control prices.
- D ensure that all the goods that society needs are produced.

[1½]

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

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

[1½]

**4** What is the combined effect of an increase in the cost of production and a rise in consumer income on the equilibrium price and quantity of an inferior good?

- A The effect on price is indeterminate but quantity will fall.
- B The effect on price is indeterminate but quantity will rise.
- C The effect on quantity is indeterminate but price will fall.
- D The effect on quantity is indeterminate but price will rise.

[1½]

**5** 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]

**6** A firm's decision to reduce its expenditure on advertising is most likely to have the following impact on its demand curve:

- A The curve will shift to the left and become less elastic.
- B The curve will shift to the right and become less elastic.
- C The curve will shift to the left and become more elastic.
- D The curve will shift to the right and become more elastic.

[1½]

**7** Diseconomies of scale means:

- A short run average total cost falls as output rises.
- B long run average total cost falls as output rises.
- C long run average total cost rises as output rises.
- D short run average total cost rises as output rises.

[1½]

**8** Which of the following is an example of economies of scope?

- A A firm doubles its inputs, both capital and labour, and as a result its output more than doubles.
- B A firm doubles the number of products it produces and also doubles its research budget.
- C A firm produces a new product and in so doing lowers the average cost of producing its existing products.
- D A firm produces a new product and in so doing lowers the price it charges on its existing products.

[1½]

**9** In the short run, a loss making firm that seeks to maximise profits will continue to produce if:

- A its marginal revenue is greater than its marginal cost of production.
- B its marginal revenue is greater than its average fixed cost.
- C it can charge a price greater than its average fixed cost.
- D it can charge a price greater than its average variable cost.

[1½]



- 10** In the short run, a firm's average fixed costs of production will:
- A increase as its output increases.
  - B decrease as its output increases.
  - C remain constant as its output increases.
  - D always be greater than its average variable costs of production.
- [1½]
- 11** What will be the impact of an increase in a firm's fixed costs of production on the firm's marginal cost?
- A Marginal cost will increase by more than fixed cost.
  - B Marginal cost will increase by the same amount as fixed cost.
  - C Marginal cost will increase but by less than fixed cost.
  - D Marginal cost will remain unchanged.
- [1½]
- 12** Which one of the following characteristics does NOT apply to a firm in an industry characterised by perfect competition?
- A The firm can make losses in the short run.
  - B There are barriers to entry into the market.
  - C The firm can make only normal profits in the long run.
  - D Marginal revenue is equal to average revenue.
- [1½]
- 13** In the long run a firm in a monopolistic competition market structure will produce at:
- A the lowest point on its average total cost curve.
  - B a point where average total cost is rising.
  - C a point where average total cost is falling.
  - D a point where average total cost is equal to marginal cost.
- [1½]
- 14** The socially efficient output for a monopoly is at the point where:
- A the marginal cost curve cuts the marginal revenue curve.
  - B the marginal cost curve cuts the demand curve.
  - C the average cost curve cuts the marginal revenue curve.
  - D the average cost curve cuts the demand curve.
- [1½]





- 15** Which of the following will result in an improvement in the domestic country's terms of trade?
- A A rise in the average price of imports relative to the average price of exports.
  - B A fall in the quantity of imports relative to the quantity of exports.
  - C A rise in the quantity of exports while imports remain the same.
  - D A rise in the average price of exports relative to the average price of imports.
- [1½]
- 16** Which of the following types of unemployment would exist even in a well functioning free market economy?
- A Classical (real-wage).
  - B Frictional.
  - C Technological.
  - D Structural.
- [1½]
- 17** The short run aggregate supply curve show that an increase in the average price level will encourage firms to:
- A reduce output and increase employment.
  - B reduce both output and employment.
  - C increase output and reduce employment.
  - D increase both output and employment.
- [1½]
- 18** Which of the following statements helps explain why the aggregate demand curve has a negative slope? As the price level falls:
- A an increase in shareholders' dividends causes them to increase their expenditure.
  - B the central bank will have to increase the supply of money, which will lead to an increase in the amount purchased.
  - C the government will have to reduce taxes, which will lead to an increase in the amount purchased.
  - D the real income of people earning a fixed quantity of money increases causing them to expand their purchases.
- [1½]
- 19** The business cycle is defined as:
- A the annual cycle of output.
  - B the long run trend path of output after removing short run variations.
  - C the periodic fluctuations of output around the long run trend.
  - D none of the above.
- [1½]



**20** Which of the following is a potential source of demand-pull inflation?

- A A fall in wages.
- B An increase in imported commodity prices.
- C An increase in consumer expenditure.
- D An increase in direct taxes.

[1½]

**21** Money that is held because of possible unforeseen events is held mainly because of the:

- A speculative motive for holding money.
- B transactions motive for holding money.
- C precautionary motive for holding money.
- D asset motive for holding money.

[1½]

**22** Capital adequacy for banks is a measure of a bank's:

- A liquidity relative to its assets.
- B liquidity relative to its capital.
- C assets relative to its capital.
- D capital relative to its assets.

[1½]

**23** The Phillips curve shows that the:

- A higher the level of prices, the lower will be the rate of unemployment.
- B higher the rate of inflation, the lower will be the rate of unemployment.
- C lower the level of prices, the lower will be the rate of unemployment.
- D higher the rate of inflation, the higher will be the rate of unemployment.

[1½]

**24** The accelerator principle states that:

- A investment is increased when interest rates fall.
- B an increase in national income can lead to a more than proportionate increase in the level of investment.
- C an increase in investment can lead to a more than proportionate increase in national income.
- D the rate of change of investment affects the rate of change of output.

[1½]



- 25** Which of the following is NOT a problem associated with the active management of fiscal policy?
- A Time lags
  - B Uncertainty
  - C Crowding out
  - D The accelerator.
- [1½]
- 26** In the event of a recession in the economy, automatic fiscal stabilisers:
- 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]
- 27** Outline, with the use of examples, two different factors of production that an accountancy firm would use. [4]
- 28** Explain, with reference to an example, why products produced in joint supply can be beneficial for a firm in particular circumstances. [5]
- 29** (i) Calculate the price elasticity of supply when the price of a product increases from £5 to £8 and the quantity supplied increases from 200 units to 400 units. [1]
- (ii) Describe three factors that would alter the elasticity of supply in an industry. [6]
- [Total 7]
- 30** (i) Define price discrimination. [2]
- (ii) Explain why price discrimination can be more effectively used in the medical treatment (service) market in comparison to the pharmaceutical (goods) market. [3]
- [Total 5]



- 31** Explain why perfect competition and economies of scale are incompatible in practice. [5]
- 32** (i) Explain why education is considered to be a merit good. [2]
- (ii) Outline how a government can encourage the population to participate in education. [4]
- [Total 6]
- 33** State four functions of a central bank. [4]
- 34** Describe the operation of the following exchange rate regimes:  
• adjustable peg  
• managed floating. [5]
- 35** Discuss the benefits and challenges of a government increasing the mobility of labour within the country. [10]
- 36** Discuss, with reference to examples, the view that the costs of economic growth may outweigh the benefits. [10]

**END OF PAPER**

