Past-paper walk-through

Firms' costs, revenue and objectives ▪ 3.6

eXercise

Questions in this set

- 0455/11 N25 Q15 ▪ 1 mark
- 0455/11 N25 Q16 ▪ 1 mark
- 0455/12 N25 Q15 ▪ 1 mark
- 0455/13 N25 Q15 ▪ 1 mark
- 0455/13 N25 Q17 ▪ 1 mark
- 0455/23 N25 Q2 ▪ 20 marks
- 0455/11 J25 Q16 ▪ 1 mark
- 0455/12 J25 Q14 ▪ 1 mark
- 0455/13 J25 Q15 ▪ 1 mark
- 0455/12 M25 Q16 ▪ 1 mark

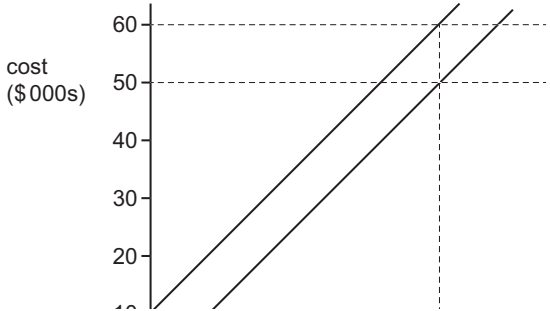
Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- // separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = "or words to that effect" – the wording need not match.

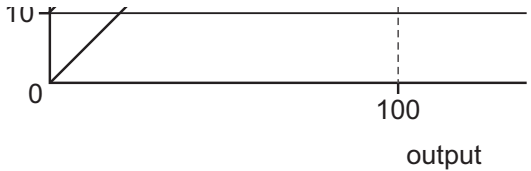
Question 15

0455/11 N25 ▪ Q15 ▪ 1 mark

15 The diagram shows the costs of a firm.



Question 15



What is the firm's total variable cost at an output of 100 units?

A $100 **B** $500 **C** $10 000 **D** $50 000

Solution 15

Answer: **D**

Why

- Total cost is fixed cost plus variable cost.
- So read total cost at that output and subtract the fixed cost.
- Fixed cost is the value of total cost where the curve meets the vertical axis, at zero output.

Question 16

0455/11 N25 ▪ Q16 ▪ 1 mark

16 If the average revenue of a firm increases from $4 to $5 and quantity demanded decreases from 20 units to 10 units, what will be the effect on the firm's total revenue?

A decreases by $20

B decreases by $30

C increases by $20

D increases by $30

Solution 16

Answer: **B**

Why

- Total revenue is price multiplied by quantity.
- Before: $4 \times 20 = 80$. After: $5 \times 10 = 50$.
- Revenue falls, which shows demand was elastic over that range.

Question 15

0455/12 N25 ▪ Q15 ▪ 1 mark

15 When it produces 100 units, a firm's total variable cost is $300 and its total fixed cost is $2700.

What is the average total cost?

A $3 **B** $24 **C** $27 **D** $30

Solution 15

Answer: **D**

Why

- Total cost = total variable cost + total fixed cost = $300 + 2700 = 3000$.
- Average total cost is total cost divided by output.
- $3000/100 = \$30$.

Question 15

0455/13 N25 ▪ Q15 ▪ 1 mark

15 The table shows a firm's average revenue and average cost at different levels of output.

When all output is sold, which level of output generates the most profit?

	output (units)	average revenue (US$)	average cost (US$)
A	5	10	30
B	10	20	20
C	15	25	15
D	20	30	18

Solution 15

Answer: **D**

Why

- Profit per unit is average revenue minus average cost.
- Total profit is that difference multiplied by the output.
- So work out the gap at each output and multiply – the largest gap is not always the largest total.

Question 17

0455/13 N25 ▪ Q17 ▪ 1 mark

17 Which role is **not** performed by a government?

A paying dividends to shareholders

B promoting international trade agreements

C providing state benefits

D subsidising merit goods

Solution 17

Answer: **A**

Why

- Governments provide public goods and merit goods, redistribute income and regulate markets.
- They also promote trade agreements and pay state benefits.
- Paying dividends to shareholders is what a *company* does, not a government.

Question 2

0455/23 N25 ▪ Q2 ▪ 20 marks

2 A Swiss multinational food manufacturer increased prices for its products by an average of 8% in 2022. It increased its prices in the USA by 11.6%. This multinational company (MNC) is one of the world's oldest MNCs. It started as a small firm but has grown over the last 160 years. Over this period, its decisions have always been influenced by opportunity cost.

(a) Define multinational company. [2]

(b) Explain two reasons why a firm may charge a different price for the same product in two different countries. [4]

(c) Analyse how opportunity cost influences the decisions made by consumers, workers and producers. [6]

(d) Discuss whether or not consumers would benefit from an increase in the number of small firms in an industry. [8]

Question 2

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Solution 2

(a)

Mark scheme

- Define multinational company.
- A firm that is based / has its headquarters in one country (1).
- Operates / produces / sets up / works (1) in another country
- or countries (1).
- 2 No mark for an example of an MNC.

Solution 2

(b) Mark scheme

- Explain two reasons why a firm may charge a different
- price for the same product in two different countries.
- Logical explanation which might include:
- ▪
- demand may be higher / lower in one country 1
- resulting in higher / lower prices 1
- ▪
- supply maybe higher / lower in one country (1) resulting

Solution 2

- in lower prices 1
- ▪
- higher income / GNP per head in one country (1) means
- more able to afford to pay higher price 1
- ▪
- price elasticity of demand may vary (1) more power to
- raise price where demand is inelastic 1
- ▪
- greater competition in one country / more substitutes 1
- leads to lower prices to be competitive 1

Solution 2

- ▪
- indirect tax rates may vary e.g. higher GST / VAT /
- import tariffs (1) will lead to higher price 1
- ▪
- government subsidies may be given in some countries
- (1) lowering price 1
- ▪
- local material costs / wages may be lower in one
- country (1) lowering costs of production mean lower
- prices 1

Solution 2

- ▪
- different transport costs (1) may be cheaper to transport
- to countries close by 1
- ▪
- quality of good may be higher (1) enable firm to charge
- a higher price (1).
- 4 One mark each for two reasons identified and one mark
- each for two explanations.
- If more than two reasons are given, consider the first three.
- Note: There will be other relevant reasons. To get the

Solution 2

- development mark there must be a justification of why that
- factor will affect prices.
- Do not accept answers based on foreign exchange rate.
- 0455/23
- October/November 2025
- Guidance

Solution 2

(c) Mark scheme

- Analyse how opportunity cost influences the decisions
- made by consumers, workers and producers.
- Coherent analysis which might include:
- ▪
- opportunity cost is the (next) best alternative (1) forgone
- / given up 1
- ▪
- example of consumers e.g. must decide between

Solution 2

- buying different products (1) due to limited income 1
- ▪
- example of workers e.g. must decide between different
- jobs or between work and leisure (1) as time is limited 1
- ▪
- example of producers / firms e.g. must decide what to
- make / how to make it / where to locate (1) as they have
- limited (financial) resources (1).
- 6 Maximum of 4 marks if candidates do not cover at least two
- out of consumers / workers / producers.

Solution 2

- 0455/23
- October/November 2025
- Guidance

Solution 2

(d) Mark scheme

- Discuss whether or not consumers would benefit from
- an increase in the number of small firms in an industry.
- In assessing each answer, use the table opposite.
- Why they might:
- ▪
- more competition, lower price, higher quality
- ▪
- small firms may provide a more personal service

Solution 2

- ▪
- may produce niche products
- ▪
- may be more flexible / react quickly to consumer needs
- ▪
- may introduce new ideas / new varieties of products
- ▪
- may be easier access – consumers may not have to
- travel so far.
- Why they might not:

Solution 2

- ▪
- may be wasteful duplication
- ▪
- may waste consumers time with too much information to
- process
- ▪
- may have higher costs as unable to take advantage of
- economies of scale
- ▪
- may reduce profits of larger firms, reducing their

Solution 2

- spending on research and development
- ▪
- may not stay in business for long.
- 8
- Level
- Description
- 3
- A reasoned discussion which accurately
- examines both sides of the economic
- argument, making use of economic

Solution 2

- information and clear and logical analysis
- to evaluate economic issues and
- situations. One side of the argument may
- have more depth than the other, but
- overall, both sides of the argument are
- considered and developed.
- There is thoughtful evaluation of
- economic concepts, terminology,
- information and/or data appropriate to
- the question. The discussion may also

Solution 2

- point out the possible uncertainties of
- alternative decisions and outcomes.
- 6–8
- 2
- A reasoned discussion which makes use
- of economic information and clear
- analysis to evaluate economic issues
- and situations. The answer may lack
- some depth and development may be
- one-sided. There is relevant use of

Solution 2

- economic concepts, terminology,
- information and data appropriate to the
- question.
- 3–5
- 0455/23
- October/November 2025
- Guidance
- Level
- Description
- 1

Solution 2

- There is a simple attempt at using
- economic definitions and terminology.
- Some reference may be made to
- economic theory, with occasional
- understanding.
- 1–2
- 0
- A mark of zero should be awarded for no
- creditable content.
- 0

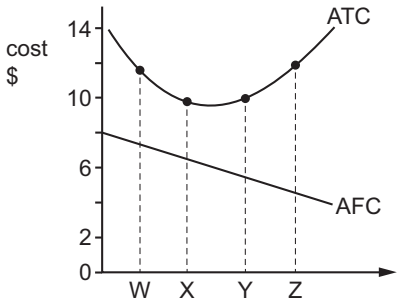
Solution 2

- L1 and up to 2 marks for an understanding of consumers,
- small firms or industry.

Question 16

0455/11 J25 ▪ Q16 ▪ 1 mark

16 The diagram shows the average total costs (ATC) and average fixed costs (AFC) for a firm.



Question 16

output

Which statement is correct?

A At output X, average variable costs are lower than average fixed costs.

B At output Y, total variable costs are greater than total fixed costs.

C Between outputs W and Z, total fixed costs are falling.

D Between outputs W and Y, average variable costs have not changed.

Solution 16

Answer: **A**

Why

- Average fixed cost falls continuously as output rises, since the fixed cost is spread more thinly.
- Average total cost is average fixed plus average variable cost, so it falls then rises.
- The vertical gap between the two curves *is* average variable cost.

Question 14

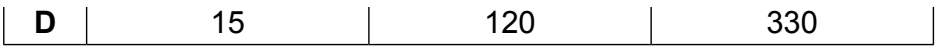
0455/12 J25 ▪ Q14 ▪ 1 mark

14 The table shows the daily output and costs of four firms making chairs.

Which firm has the highest average cost of production?

	output (units)	fixed costs ($)	variable costs ($)
A	6	100	140
B	9	30	150
C	12	200	160

Question 14



Solution 14

Answer: **A**

Why

- Average cost is total cost divided by output.
- Total cost is fixed costs plus variable costs.
- So add the two, divide by each firm's output, and compare the results.

Question 15

0455/13 J25 ▪ Q15 ▪ 1 mark

15 A firm has fixed costs of $100 for its daily output. The table shows its daily total variable costs.

output (units)	1	2	3	4
total variable costs ($)	200	360	500	720

What can be concluded about the firm's average total cost?

A It falls continuously.

B It is highest at output 4 units.

C It is lowest at output 3 units.

Question 15

D It rises continuously.

Solution 15

Answer: **C**

Why

- Total cost is fixed cost plus variable cost, so add the 100 to each figure.
- Average cost is that total divided by output.
- Marginal cost is the *change* in total cost from one extra unit – so subtract consecutive totals.

Question 16

0455/12 M25 ▪ Q16 ▪ 1 mark

16 The table shows the average revenue of a firm at various levels of output.

output	average revenue ($)
1	10
2	8
3	6
4	4

Question 16

What happens to total revenue as output rises?

A Total revenue falls and then rises.

B Total revenue falls continuously.

C Total revenue rises and then falls.

D Total revenue rises continuously.

Solution 16

Answer: **C**

Why

- Total revenue is average revenue multiplied by output.
- So work out 10×1, 8×2, 6×3, 4×4.
- That gives 10, 16, 18, 16 – revenue rises, peaks and then falls.