

# 3.7 Firms' Costs, Revenue & Objectives

## Question Paper

Course	CIE IGCSE Economics
Section	3. Microeconomic Decision Makers
Topic	3.7 Firms' Costs, Revenue & Objectives
Difficulty	Medium

**Time allowed:** 30  
**Score:** /24  
**Percentage:** /100

### Question 1

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

Which level of output gives maximum profit?

	output (units)	total revenue (\$)	total cost (\$)
<b>A</b>	10	15	15
<b>B</b>	20	20	18
<b>C</b>	30	25	20
<b>D</b>	40	30	21

[1 mark]

### Question 2

The table shows the output and total costs of a small firm.

output (units)	total costs (\$)
0	50000
1000	100000
5000	400000
10000	600000

What is the average fixed cost of producing 10 000 units?

- A. \$5
- B. \$6
- C. \$55
- D. \$60

[1 mark]

**Question 3**

A firm has fixed costs of \$1000. The table shows the variable cost at different levels of output.

output (units)	1	2	3	4
variable cost (\$)	100	190	270	350

If the goods are sold for \$500 each, how much profit will be made from the sale of 4 units?

- A. \$650
- B. \$1000
- C. \$1650
- D. \$2000

[1 mark]

**Question 4**

The table shows the costs of a firm.

variable cost per good	fixed cost
\$2	\$40

What is the average total cost if the firm produces 20 goods?

- A. \$1
- B. \$2
- C. \$4
- D. \$80

[1 mark]

**Question 5**

When is profit maximisation achieved?

- A. when average fixed cost is at a minimum
- B. when average revenue is at a maximum
- C. when the firm produces the largest output it can with the resources it has available
- D. when there is the greatest possible difference between total revenue and total cost

[1 mark]

### Question 6

A firm producing bicycles has the following costs at different levels of output.

output	total fixed costs (\$)	total variable costs (\$)
10	300	800
20	300	1500
30	300	3300

What happens to the average total cost over this range of output?

- A. It falls continuously.
- B. It falls then rises.
- C. It rises continuously.
- D. It rises then falls.

[1 mark]

### Question 7

When will a firm maximise its profits?

- A. when it excludes a rival supplier from the market
- B. when it produces where average cost and average revenue are equal
- C. when it sells as many products in as many different markets as it can
- D. when the difference between total cost and total revenue is greatest

[1 mark]

**Question 8**

The table shows the costs of a firm.

units of output	variable costs (\$)	total costs (\$)
10	20	80
20	50	110
30	80	140
40	110	170

What is the value of the firm's fixed costs?

- A. \$20
- B. \$30
- C. \$60
- D. \$80

[1 mark]

**Question 9**

A firm's average revenue is \$10. It sells 2000 units.

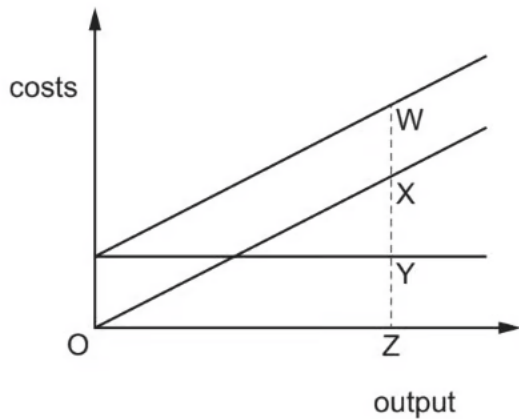
What is the firm's total revenue and the price of the product?

	total revenue (\$)	price (\$)
<b>A</b>	10	10
<b>B</b>	2000	200
<b>C</b>	20000	10
<b>D</b>	20000	200

[1 mark]

### Question 10

The diagram shows the fixed costs, variable costs and total costs of a firm.



Which distance represents the firm's fixed costs?

- A. WX
- B. WY
- C. XY
- D. XZ

[1 mark]

### Question 11

An entrepreneur buys a workshop for \$200 000 to make plastic boxes. In the first year of operation he spends \$70 000 on materials, employs ten production workers paid by the amount produced (piece rate) at a total cost of \$80 000 and buys two delivery vehicles for \$10 000 each.

What are his total variable costs?

- A. \$100 000
- B. \$150 000
- C. \$220 000
- D. \$370 000

[1 mark]

### Question 12

In the short run, a firm calculates its total fixed cost, total variable cost and total cost. It then plots a graph showing how they change as output increases.

What happens to the lines showing the total variable cost and total cost as output increases?

- A. They merge to become one curve.
- B. They move closer together.
- C. They move further apart.
- D. They remain a constant distance apart.

[1 mark]

### Question 13

A firm has fixed costs of \$1000. The table shows the variable cost at different levels of output.

output (units)	1	2	3	4
variable cost (\$)	100	190	270	350

If the goods are sold for \$500 each, how much profit will be made from the sale of 4 units?

- A. \$650
- B. \$1000
- C. \$1650
- D. \$2000

[1 mark]

**Question 14**

The table shows the total cost of firm X at each level of output.

output	total cost
0	3
1	5
2	6
3	9

At which level of output does total variable cost exceed total fixed cost?

- A. 0
- B. 1
- C. 2
- D. 3

[1 mark]

**Question 15**

A firm has fixed costs of \$1000. The table shows the variable cost at different levels of output.

output (units)	1	2	3	4
variable cost (\$)	100	190	270	350

If the goods are sold for \$500 each, how much profit will be made from the sale of 4 units?

- A. \$650
- B. \$1000
- C. \$1650
- D. \$2000

[1 mark]



### Question 16

What must result from an increase in output?

- A. a decrease in the average cost
- B. a decrease in the total costs
- C. an increase in the fixed costs
- D. an increase in the variable costs

[1 mark]

### Question 17

A firm producing bicycles has the following costs at different levels of output.

output	total fixed costs (\$)	total variable costs (\$)
10	300	800
20	300	1500
30	300	3300

What happens to the average total cost over this range of output?

- A. It falls continuously.
- B. It falls then rises.
- C. It rises continuously.
- D. It rises then falls.

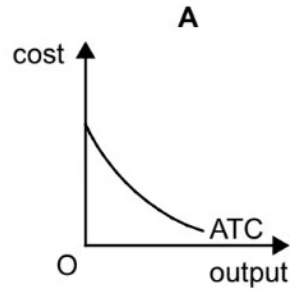
[1 mark]

**Question 18**

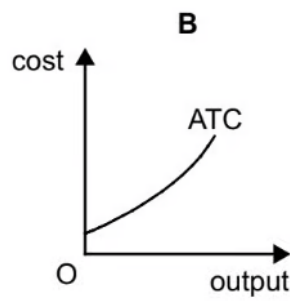
The diagrams show the average total cost (ATC) curves of four firms and how they change as output increases.

Which firm has the highest fixed costs?

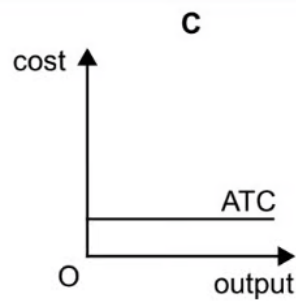
A.



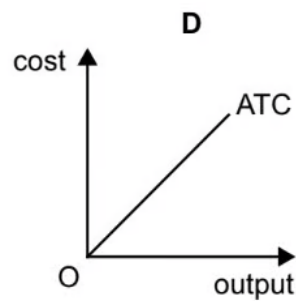
B.



C.



D.



[1 mark]

**Question 19**

Why is the energy supply industry dominated by very large firms in many economies?

- A. Government controls prevent the exploitation of consumers.
- B. High fixed capital costs exist.
- C. Labour-intensive production techniques are used.
- D. Non-price advertising increases competition.

[1 mark]

**Question 20**

An entrepreneur buys a workshop for \$200 000 to make plastic boxes. In the first year of operation he spends \$70 000 on materials, employs ten production workers paid by the amount produced (piece rate) at a total cost of \$80 000 and buys two delivery vehicles for \$10 000 each.

What are his total variable costs?

- A. \$100 000
- B. \$150 000
- C. \$220 000
- D. \$370 000

[1 mark]

**Question 21**

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 gives maximum profit?

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

[1 mark]

### Question 22

Which statement about total fixed cost is correct?

- A. It falls as output increases.
- B. It is calculated by adding total cost and total variable cost.
- C. It is calculated by dividing total cost by output.
- D. It must be paid even if output is zero.

[1 mark]

### Question 23

A firm that sells its product for \$6 a unit has the following total costs.

output (units)	0	10	20	30
total costs (\$)	40	100	120	150

Which statement is correct?

- A. Average cost is lowest when 10 units are produced.
- B. The firm does not make any profit when 20 units are sold.
- C. The firm has no fixed costs.
- D. Total variable costs fall continuously over these outputs.

[1 mark]

### Question 24

Which statement about fixed costs is correct?

- A. They exist only in the long run.
- B. They include raw material and direct labour costs.
- C. They increase at the same rate as output.
- D. They must be paid even if there is no output.

[1 mark]

