3.6 Firms' Short-Run Decisions to Produce and Long-Run Decisions to Enter or Exit a Market

Name: ____________ Class: ________ Date: __________ **Total: 8 marks**

Objective

Build the skills to answer exam questions on **firms' short-run and long-run decisions**.

You must be able to:

- apply the **shut-down rule** 停产法则 in the short run
- explain why a firm operates at a loss when price exceeds **average variable cost**
- explain the long-run decision to **exit** when price is below **average total cost**
- explain how economic profits attract **entry** and losses cause **exit**

1 Worked examples

Study these first. Each one shows the method for a question type used later.

■ The shut-down rule (short run)

Keep producing if $P \geq AVC$; **shut down** if $P < AVC$. Above AVC, the firm at least covers its variable costs and part of its fixed costs.

■ The exit rule (long run)

Exit the market if $P < ATC$ (it makes a loss with no fixed costs to worry about).

■ Entry and exit

Economic **profits** attract **entry**; economic **losses** cause **exit**. A firm breaks even (normal profit) where $P =$ minimum ATC.

2 Practice

2.1 State the short-run shut-down rule. [1]

2.2 State when a firm should exit a market in the long run. [1]

2.3 State what happens to a market when existing firms earn economic profits. [1]

3 Exam-style questions

3.1 A firm should shut down in the short run if price is below [1]

- **A** average total cost
- **B** average variable cost
- **C** marginal cost
- **D** average fixed cost

3.2 In the long run, economic profits attract [1]

- **A** exit
- **B** entry
- **C** shut-down
- **D** no response

3.3 A firm faces $P = \$8$, $AVC = \$6$, and $ATC = \$10$.

(a) State whether it should produce or shut down in the short run. [1]

(b) Explain why. [1]

(c) State its long-run decision. [1]

4 Go further

- work through the **3.6 Firms' Short-Run and Long-Run Decisions** lesson on the **Learn** page;
- read the **Production, Cost, and the Perfect Competition Model** section of the AP Microeconomics handout on the **Know** page.

Solutions

2.1 produce if price is at least AVC; shut down if price is below AVC.

2.2 when price is below average total cost.

2.3 new firms enter, raising supply until profits fall to normal.

3.1 B.

3.2 B.

3.3 (a) produce. (b) $P = \$8 > AVC = \$6$, so it covers all variable cost plus some fixed cost, losing less than by shutting down. (c) exit —$P < ATC$, so it makes a loss in the long run.