1.14 Price Elasticity of Supply and Its Determinants: Test Pack

Total Marks

AQA 7136 · Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer all questions. Write full sentences for the 10-mark data-response, the 10-mark evaluate question and the 25-mark essay. A calculator is not allowed. Show working for every calculation.

1 Multiple choice on the definition of price elasticity of supply, context UK manufactured goods market.

- ☐ The percentage change in quantity demanded divided by the percentage change in price
- ☐ The percentage change in quantity supplied divided by the percentage change in price
- ☐ The change in quantity supplied divided by change in price, measured in market units
- ☐ The difference between supply and demand when price changes

(Total for Question 1 is 1 mark)

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2 Short answer: Compare briefly why manufactured goods typically show higher PES than agricultural produce, giving two distinct determinants and a one-sentence conclusion for UK markets.

(Total for Question 2 is 4 marks)

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3 Short calculation interpretation: If a market shows PES = 0.5, state whether supply is elastic, inelastic or unit elastic and explain what a 10% rise in price would imply for quantity supplied (use whole-number percentage).

(Total for Question 3 is 2 marks)

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4 Calculation: In a UK electronics workshop the price of a replacement phone screen rises from £30 to £36 and quantity supplied rises from 100 units to 120 units. Calculate the price elasticity of supply for replacement phone screens, showing full working, and interpret your answer. No calculator needed; express PES to two decimal places or awrt.

(Total for Question 4 is 4 marks)

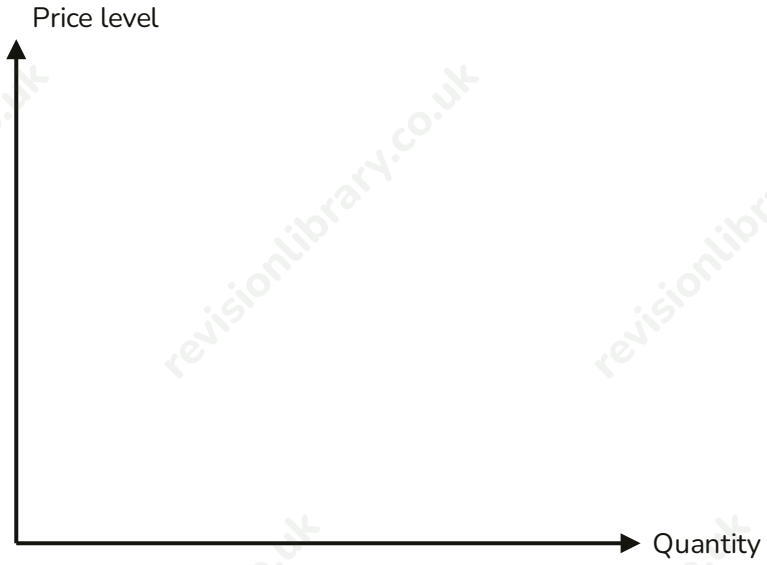
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5 Explain how the time period available to producers (momentary, short run, long run) determines PES, using the context of fruit growers responding to a price rise for soft fruits in the UK.

(Total for Question 5 is 3 marks)

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6 Supply-curve diagram task: Draw a diagram with price level on the vertical axis and quantity on the horizontal axis showing two supply curves: one nearly vertical (low PES) representing short-run agricultural supply and one relatively flat (higher PES) representing manufactured goods. In the context of UK markets, label axes, both supply curves (S_agri, S_manuf), an initial price P1 and quantity Q1 common equilibrium point, and show the new equilibrium points after a rightward demand shift for each curve. Explain in words why the movement along each curve differs and award diagram marks separately.



(Total for Question 6 is 4 marks)

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Mark scheme · 1.14 Price Elasticity of Supply and Its Determinants: Test Pack

Question 1

correct option B, recognising the standard formula for PES	**B1**

Answer: The percentage change in quantity supplied divided by the percentage change in price.

Question 2

identifies a first determinant, e.g. stock/inventory availability in manufacturing allowing quick supply increases	**B1**
explains it briefly, linking to higher PES in manufactured goods	**B1**
identifies a second determinant, e.g. time and biological lags in agriculture limiting short-run responsiveness	**B1**
one-sentence conclusion that manufactured goods generally have higher PES because production is more flexible and less seasonal	**B1**

Answer: Manufactured goods often hold inventories and can increase output by adding shifts or using spare capacity, raising PES; agricultural produce faces biological and seasonal lags and low stock, lowering PES. Conclusion: manufactured goods therefore typically have higher PES than agricultural produce.

Question 3

correct classification: PES = 0.5 means supply is inelastic	**B1**
explain: a 10% price rise would raise quantity supplied by 5% (10% x 0.5 = 5%)	**B1**

Answer: Inelastic supply; a 10% price rise would increase quantity supplied by 5%.

Question 4

method: percentage change in quantity supplied = (120 - 100) / 100 x 100 = 20%	**M1**
method: percentage change in price = (36 - 30) / 30 x 100 = 20%	**M1**
accuracy: PES = 20% / 20% = 1.0	**A1**
interpretation: PES = 1.0 indicates unit elastic supply in this example	**B1**

Answer: PES = 1.0, unit elastic supply.

Question 5

identifies that in the momentary period producers cannot change output, so supply is very inelastic	**M1**
develops: in the short run some inputs are fixed so supply is relatively inelastic, e.g. existing plants/trees limit immediate response	**A1**
develops: in the long run firms can adjust all inputs, plant new orchards or move production, so supply becomes more elastic	**B1**

Answer: Momentary supply is very inelastic because output cannot be changed quickly; short run allows limited response as some inputs are fixed; long run allows full adjustment of inputs, so supply is more elastic.

Question 6

correctly labelled axes (Price level vertical, Quantity horizontal)	**B1**
both supply curves present and correctly labelled S_agri (steep) and S_manuf (flatter)	**B1**
initial equilibrium P1/Q1 shown and both new equilibria after AD shifts shown: small Q change for S_agri and larger Q change for S_manuf	**B1**
written explanation linking curve steepness to PES: steep S_agri gives low PES so price rises more, flat S_manuf gives higher PES so quantity adjusts more	**B1**

Answer: Diagram with correctly labelled axes, steep S_agri and flat S_manuf, initial equilibrium P1/Q1, AD shift showing small Q change for S_agri and larger Q change for S_manuf. Explanation links curve shapes to PES.

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