1.1 Price and Income Elasticity of Demand: 30-minute Pack

Total Marks

AQA 7132 · Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions in the spaces provided. Show your working for every calculation. Use the figures given in each question's prompt; no calculator is needed for any calculation.

1 Which one of the following YED values indicates the good is an inferior good?

- ☐ A) +0.5
- ☐ B) -0.8
- ☐ C) +1.5
- ☐ D) +0.0

(Total for Question 1 is 1 mark)

2 A convenience food is classified as normal or inferior depending on income changes. If YED for a product is +0.3, state whether it is a normal good or an inferior good, and explain briefly why.

(Total for Question 2 is 1 mark)

3 State two factors that make demand for a good more price elastic for consumers in a local UK market.

(Total for Question 3 is 2 marks)

4 Explain one reason why a branded medicine might have more price inelastic demand than a generic alternative, referring to the factors that affect PED.

(Total for Question 4 is 2 marks)

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5 A retailer sells a snack that is income inelastic with YED = 0.4. If average consumer incomes rise by 15%, calculate the expected percentage change in quantity demanded for this snack. Show your working.

(Total for Question 5 is 1 mark)

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6 A UK fashion retailer reduces the price of a jacket from £80 to £64 and notices sales rise from 200 jackets per month to 300 jackets per month. Calculate the price elasticity of demand for the jacket, showing your working. State whether demand is elastic, inelastic or unitary, and briefly explain what this means for the retailer's total revenue.

(Total for Question 6 is 6 marks)

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7 Evaluate the usefulness of price elasticity of demand and income elasticity of demand to a firm setting prices and planning sales in the UK market. Use examples and refer to both calculations and limitations in your answer.

(Total for Question 7 is 9 marks)

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Mark scheme · 1.1 Price and Income Elasticity of Demand: 30-minute Pack

Question 1

B cao **B1**

Answer: B

Question 2

normal good, because YED is positive (greater than 0) **B1**

Answer: Normal good, because YED is positive (0.3 > 0).

Question 3

availability of close substitutes **B1**

the product taking a large proportion of consumers' income, or product being a luxury **B1**

Answer: Any two, e.g. availability of close substitutes; product taking a large proportion of income or being a luxury.

Question 4

identifies reason, e.g. strong brand loyalty or perceived lack of close substitutes **B1**

develops consequence, e.g. consumers are less sensitive to price changes, so demand falls little when price rises **B1**

Answer: Brand loyalty or perceived uniqueness reduces availability of close substitutes, so consumers are less sensitive to price changes and demand is more price inelastic for the branded medicine than for generics.

Question 5

calculation: % change in Q = YED x % change in income = 0.4 x 15% = 6% cao **B1**

Answer: Quantity demanded rises by 6%.

Question 6

method: % change in Q = (300-200)/200 x 100 = 50% or 0.50; % change in P = (64-80)/80 x 100 = -20% or -0.20 seen **M1**

method: PED = % change in Q / % change in P, substitution seen **M1**

answers PED = 50% / -20% = -2.5 or |PED| = 2.5 cao **A1**

states classification: elastic because |PED| > 1 **B1**

explains revenue implication, e.g. price fall leads to revenue rising because quantity rise proportionately exceeds price fall **B1**

links to retailer: therefore retailer's total revenue increases after the price cut (e.g. revenue before = 80 x 200 = 16,000; after = 64 x 300 = 19,200) or equivalent **B1**

Answer: PED = -2.5, demand is elastic, so the price cut raises total revenue (from £16,000 to £19,200).

Question 7

Level 1 Offers simple, undeveloped points about elasticity, such as basic definitions or a brief statement of one way elasticity can affect revenue, with little or no use of examples or evaluation. **1-3**

Level 2 Provides developed points about how PED and YED inform pricing and sales planning, with some use of examples or calculations, and starts to consider limitations such as changing market conditions or measurement difficulties. **4-6**

Level 3 Gives a well-developed evaluation weighing the practical usefulness against the limitations, uses specific examples and numerical reasoning where relevant, and reaches a justified conclusion about when and how elasticity measures are most valuable for business decision making. **7-9**

Indicative content:

- How PED helps predict revenue effects: with calculated PED values a firm can predict whether a price rise will increase or decrease total revenue, illustrated with numerical examples such as a price cut raising revenue when demand is elastic.
- How YED helps product and market planning: YED indicates whether sales will rise with economic growth (normal luxury goods) or fall (inferior goods), informing stock, capacity and target market decisions.
- Usefulness in segmentation and promotion: firms can target inelastic segments with higher prices and elastic segments with promotions, improving margin management.
- Practical limitations: elasticity estimates often vary by time period, market, and the exact price change; data may be unreliable; cross-price effects and competitor reactions complicate simple predictions.
- External factors and dynamic demand: trends, advertising, and brand loyalty can change elasticity over time, so static PED/YED figures are only a guide and need regular updating.
- Operational constraints: costs, capacity, legal price controls, and brand strategy may override what elasticity suggests, so firms must balance elasticity insights with wider business strategy.
- Judgement: conclude by weighing the strengths and limits, for example that elasticity is a valuable tool for short-term pricing and forecasting but should be used alongside market research, competitor analysis and cost considerations for robust pricing decisions.

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