1.17 Price Discrimination and the Theory of Contestable Markets: 30-minute Pack

Total Marks

AQA 7136 · Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer all questions. Fully explain any diagrams you are asked to draw. Spend about 30 minutes in total.

1 Explain, with a clear example for each, the three standard degrees of price discrimination in markets such as rail fares, cinema tickets and retail: first-degree, second-degree and third-degree price discrimination. Name the degree with each example and the market setting.

(Total for Question 1 is 6 marks)

2 Calculate and interpretation question. Context: A small cinema charges adults £10 for a ticket and students £7. A market study estimates that the price elasticity of demand for adults is -0.8 and for students is -1.6 at these prices. Explain whether the cinema is pricing optimally between the two groups in the sense of setting higher price where demand is less elastic. State the rule linking elasticity and mark-up over marginal cost in third-degree discrimination and explain in one sentence what the given elasticities imply about relative prices, assuming similar marginal cost across groups.

(Total for Question 2 is 8 marks)

3 Explain the key features of a perfectly contestable market, naming hit-and-run entry and the role of sunk costs, and state one implication for an incumbent firm's pricing behaviour.

(Total for Question 3 is 4 marks)

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Mark scheme · 1.17 Price Discrimination and the Theory of Contestable Markets: 30-minute Pack

Question 1

first-degree: charging each consumer their maximum willingness to pay, example given such as personalised auction or negotiated price for rare tickets	**B1**
second-degree: price varies with quantity or version, example given such as bulk-buy discounts in retail or first-class versus standard-class rail tickets (versioning)	**B1**
third-degree: market split into groups with different elasticities, example given such as student or senior discounts in cinemas or trains	**B1**
each example states which consumers pay more and which pay less and why	**B1**
one development point linking the degree to how it can increase firm profit or affect consumer welfare in the example	**B1**
clear labelling of each degree as first, second or third	**B1**

Answer: First-degree: personalised pricing such as auctions where each buyer pays their maximum willingness to pay. Second-degree: bulk discounts or first-class versus standard-class tickets where price varies by quantity or version sold. Third-degree: segmentation into groups with different price elasticities, e.g. student discounts for cinema tickets or peak commuter fares, where less elastic groups pay more.

Question 2

states the pricing rule: markup (P - MC)/P = -1/elasticity or price should be higher where demand is less elastic	**M1**
applies rule qualitatively: since adult elasticity -0.8 is less elastic than student elasticity -1.6, adults should face a higher price relative to MC than students	**A1**
notes assumption: marginal cost is similar across groups so differences in price reflect differing elasticities	**M1**
concludes that charging adults £10 and students £7 fits the rule that the less elastic group (adults) pays a higher price	**A1**
optional numeric demonstration: rearrange rule to show P/(P - MC) = -elasticity and note relative ratios without needing MC value	**M1**
states implication: with elasticities -0.8 and -1.6, the adult group can bear a larger markup, so P_adult > P_student is appropriate	**A1**
recognises caveat: other constraints such as preventing resale or legal restrictions or signalling may affect pricing	**B1**
clear concluding sentence linking elasticity differences to the observed price differential	**B1**

Answer: Rule: (P - MC)/P = -1/elasticity, so less elastic demand supports a higher markup. With adult elasticity -0.8 and student -1.6, adults should face a higher price than students, so £10 v £7 is consistent with optimal third-degree discrimination given similar MCs, subject to resale prevention and other constraints.

Question 3

identifies perfect contestability features: absence of sunk costs, free entry and exit, and access to the same technology for entrants	**M1**
explains hit-and-run entry: potential entrants can enter when incumbents price above competitive level, make profit, and exit without loss	**A1**
links sunk costs: if sunk costs are zero entrants can exit without loss, making the market contestable	**M1**
implication for incumbents: they may set a price close to competitive price to deter entry, for example using limit pricing	**A1**

Answer: Perfect contestability requires zero sunk costs, free entry and exit and equal access to technology; hit-and-run entry means entrants can exploit temporary supernormal profit and exit; therefore incumbents may set prices close to competitive levels to deter entry.

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