1.16 Monopolistic Competition and Oligopoly: Non-Price Competition and Game Theory

Total Marks

AQA 7136 · Calculators not allowed · about 90 minutes · Write-in edition

Name: _____ Date: ____ / ____ / _____

Answer all questions. Show working for calculations. A calculator is not required.

1 Calculate the four-firm concentration ratio for a hypothetical UK cosmetics market where the top four firms have market shares of 22%, 18%, 14% and 10%. Explain briefly what this concentration ratio suggests about the market structure.

(Total for Question 1 is 3 marks)

2 State one pro-consumer effect and one anti-consumer effect of collusion among firms in an oligopoly, with brief explanation.

(Total for Question 2 is 3 marks)

3 Evaluate the view that collusion in oligopolistic markets is generally harmful to consumers. In your answer, draw on examples, include discussion of overt and tacit collusion, consider possible benefits such as reduced price volatility or coordinated investment, discuss the role of enforcement and market entry, and reach a supported judgement. Draw any relevant diagrams you think helpful. Full sentences required.

(Total for Question 3 is 25 marks)

4 State two features of monopolistic competition that explain why firms make normal profit in the long run, referring to the entry and exit behavior of firms.

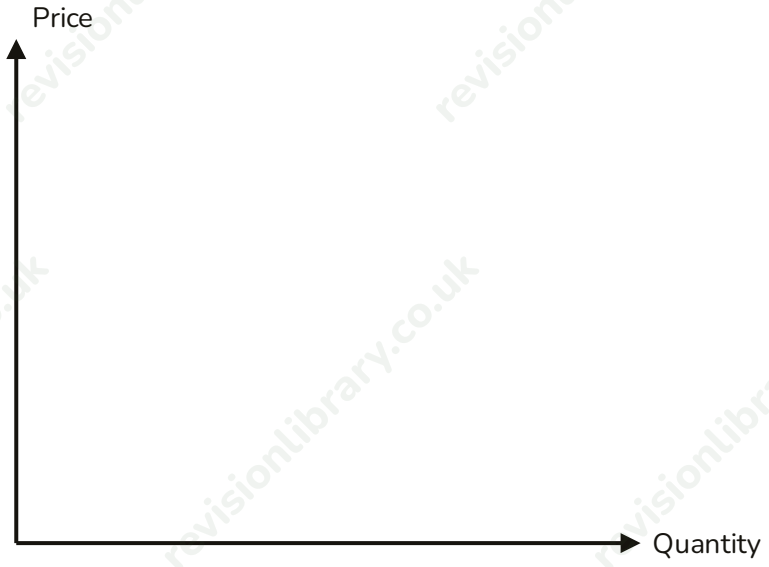
(Total for Question 4 is 2 marks)

5 Draw a labelled diagram and explain the long-run equilibrium of a firm in monopolistic competition, showing price, average cost and demand such that the firm makes normal profit. Context: a local independent bakery in a town with many bakeries.



(Total for Question 5 is 6 marks)

6 Sketch and label a kinked demand curve diagram for an oligopolistic firm in the UK supermarket sector and explain briefly why the marginal revenue curve has a discontinuity.



(Total for Question 6 is 5 marks)

7 State three barriers to entry that help sustain oligopoly market structures, with brief justification for each barrier in the context of the mobile phone network industry.

(Total for Question 7 is 3 marks)

8 Data-response: Read the following short case on the UK supermarket oligopoly and answer the question that follows. Prompt must be used in the answer.

Case: The UK grocery market is dominated by a few large firms. In 2025 the four largest supermarkets had a combined market share of 68%. Over the year there were high levels of advertising spending, and two of the largest firms introduced loyalty apps offering personalised discounts. At the same time there was public concern about prices charged for staple goods and a period of limited entry by new full-scale supermarket chains.

Question: Explain how the data in the case show that the UK grocery market is oligopolistic, and analyse the likely effects on consumer choice and prices of the loyalty app strategies. Use data from the case in your answer.

(Total for Question 8 is 10 marks)

Mark scheme · 1.16 Monopolistic Competition and Oligopoly: Non-Price Competition and Game Theory

Question 1

adds the four shares: 22 + 18 + 14 + 10 **M1**

= 64% **A1**

interprets 64% as indicating a concentrated market consistent with oligopoly, where a few firms hold most market share **B1**

Answer: Four-firm concentration ratio = 64%; suggests a concentrated market consistent with oligopoly.

Question 2

pro-consumer effect: collusion can stabilise prices and ensure predictable supply which may benefit consumers if it prevents destructive price wars that reduce service quality **B1**

anti-consumer effect: collusion tends to raise prices above competitive levels, reducing consumer surplus and welfare **B1**

brief explanation of each effect linking to consumer outcomes **B1**

Answer: Pro: price stability and steady supply may benefit consumers; Anti: higher prices and reduced consumer surplus are harmful.

Question 3

Level 1 Basic assertions about collusion with little development. Limited evidence or examples. Conclusions are unsupported or simplistic. **1-5**

Level 2 Some developed points about harms and benefits of collusion, with at least one example. Limited analysis of mechanisms or counterarguments. Judgement is tentative. **6-10**

Level 3 Clear analysis of how collusion can raise prices and reduce welfare, with discussion of tacit versus overt collusion and some consideration of benefits such as investment or stability. Uses examples and may include a basic diagram. **11-15**

Level 4 Well developed evaluation. Analyses both sides, including market entry, enforcement, dynamic effects, distributional impact and potential efficiency gains from coordination. Uses multiple examples and a labeled diagram where appropriate. **16-20**

Level 5 Comprehensive, balanced, and well-supported evaluation. Demonstrates deep understanding of incentives to collude, enforcement difficulties, consumer effects across time and groups, and policy responses. Reaches a clear, justified judgement and integrates diagrams and real-world examples convincingly. **21-25**

Indicative content:

- Explain how collusion raises price above competitive or non-collusive oligopoly levels and reduces consumer surplus
- Discuss overt collusion (cartels) with example such as OPEC, including explicit quotas and the need for enforcement and monitoring
- Discuss tacit collusion, price leadership and the kinked demand model as mechanisms for collusive-like outcomes without explicit agreement
- Consider potential benefits: price stability, avoidance of destructive price wars, coordinated investment in capacity or innovation that could benefit consumers
- Analyse distributional effects: some consumers may benefit from stability or targeted discounts while others suffer from higher average prices
- Discuss the role of barriers to entry and market structure: collusion is easier and more durable where entry is limited and few firms dominate
- Consider enforcement and policy: antitrust law, fines, leniency programs and the difficulty of proving tacit collusion
- Time dimension: short-run versus long-run effects, including dynamic efficiency and incentives to cheat on collusive agreements
- Policy trade-offs: when should regulators tolerate limited coordination to promote investment versus when to intervene to protect consumers
- Supported judgement weighing the overall likely impact on consumer welfare, conditional on market specifics and enforcement strength

Question 4

freedom of entry and exit allows new firms to enter when existing firms earn supernormal profit	**B1**
entry increases competition and reduces demand for each existing firm until only normal profit remains	**B1**

Answer: Freedom of entry and exit; entry when supernormal profits exist increases competition until firms earn only normal profit.

Question 5

axes correctly labelled: Price/Cost vertical, Quantity horizontal	**B1**
demand curve (AR) drawn downward sloping and MR below it	**B1**
U-shaped AC curve drawn and MC intersecting MR at profit-maximising output	**B1**
point where AC is tangent to AR at the price charged, showing price equals average cost	**B1**
explanation that entry erodes supernormal profit resulting in AC tangent to AR so only normal profit remains in the long run	**B1**
identification that output is at MR = MC and price is read from AR at that output	**B1**

Answer: Diagram with labelled axes, D and MR, AC tangent to AR at the price where MR=MC; explanation that entry removes supernormal profits leaving normal profit.

Question 6

axes labelled Price and Quantity and kinked demand curve drawn with a kink at P1	**B1**
MR curve drawn with a discontinuity or vertical gap under the kink	**B1**
identifies that above P1 rivals do not follow price increases so demand is relatively elastic there, below P1 rivals match price cuts so demand is relatively inelastic there	**B1**
explains that this asymmetry of rival responses produces the MR discontinuity	**B1**
links diagram to price rigidity: small changes in marginal cost within the MR gap do not change price	**B1**

Answer: Kinked demand with MR gap; asymmetric rival responses make MR discontinuous so price tends to be stable.

Question 7

high fixed costs of network infrastructure, which deter new entrants	**B1**
economies of scale enjoyed by incumbents, giving cost advantage	**B1**
control of spectrum/licenses or regulatory hurdles that limit new operators	**B1**

Answer: High fixed infrastructure costs; strong economies of scale; control of spectrum and regulatory barriers.

Question 8

Level 1 Limited explanation with generic statements. Identifies one or two features of oligopoly from the case with little development and provides minimal analysis of loyalty apps, relying on assertion rather than evidence or chain of reasoning.	**1-3**
Level 2 Clear explanation using the case. Explains how the 68% four-firm share and limited entry indicate oligopoly, and analyses plausible effects of loyalty apps on consumer choice and prices, with some development and use of the case. May include one-sided evaluation or limited consideration of distributional effects.	**4-7**
Level 3 Thorough, well-developed answer. Uses the 68% concentration figure and limited entry to justify oligopoly, explains links between high advertising and product differentiation, and analyses both benefits and harms of loyalty apps on consumer choice and prices, including likely dynamic effects, potential price discrimination, and implications for competition given barriers to entry. Supported judgement on net effect.	**8-10**

Indicative content:

- Use the 68% four-firm market share to argue the market is concentrated and meets the definition of oligopoly
- Limited entry of new full-scale supermarket chains supports barrier to entry and market power of incumbents
- High advertising spending is evidence of non-price competition and attempts to differentiate brands
- Loyalty apps offering personalised discounts can increase consumer choice in the short run through targeted prices and promotions
- Apps may enable price discrimination and personalised pricing, extracting more consumer surplus from some shoppers while offering bargains to others
- Loyalty schemes can increase switching costs and customer lock-in, reducing effective competition and potentially allowing higher base prices
- Possible dynamic effects: short-term consumer gains from discounts but long-term higher average prices if loyalty schemes reduce price rivalry and create data advantages for incumbents
- Consider distributional effects: low-income shoppers may benefit or be excluded depending on how discounts are targeted
- Judgement weighing the pro-competitive price benefits of targeted discounts against anticompetitive effects of greater market power and reduced entry