

**BS2298 Market Games Strategy
Sample Exam 2**

Instructions:

- **Section A - Answer ALL questions.**
- **Section B - Answer ALL questions.**
- **Section C – Answer ALL questions.**
- **Weighting:**
 - Section A is worth 20%.**
 - Section B is worth 20%.**
 - Section C is worth 60%.**

Section A

In this section you are being assessed more on the logic underlying the exercise, rather than on simply the numerical values of the answers themselves. Hence, please ensure that when answering questions in this section you do the following: (a) show all workings, (b) clearly signpost each step and (c) describe how you obtain quantity, price, profits etc. from the steps you use.

Question 1:

A monopoly manufacturer produces a product at a marginal and average cost of 6. This product is then sold on to a monopoly retailer who sells on to final consumers. The retailer faces a demand function given by $q=30-p$ where p is the retail price. Assume the supplier charges the retailer just a price per unit and the retailer faces no additional costs.

Initially, assume the retailer is free to choose the retail price it charges.

- a) What wholesale price will the supplier charge? (6 marks)

Answer: $w=18$.

- b) What will the resulting retail price be? (1 marks)

Answer: $p=24$.

- c) How much profit does the manufacturer make? (1 marks)

Answer: $\pi_M = 72$.

- d) How much profit does the retailer make? (1 marks)

Answer: $\pi_R = 36$.

- e) What are total profits in the market? (1 marks)

Answer: $\Pi = 108$.

- f) If the manufacturer can use retail price maintenance, what will the retail price be? (4 marks)

Answer: $p=18$.

- g) What are the resulting total profits in the market under resale price maintenance? (2 marks)

Answer: $\Pi = 144$.

- h) Compare the profits in part g) to those in part e) and explain why the difference arises.

(4 marks)

The difference arises due to the problem of double marginalisation. RPM can be used by the manufacturer as a way to solve the problem.

Section B

Answer ALL questions in this section.

In this section you are being assessed on the understanding of relevant economic theory and explanation of the intuition. For each of the following statements, decide whether they are TRUE or FALSE and provide clear and concise explanations for your answers.

Question 1:

- a) Both tacit collusion and cartel are illegal.

(4 marks)

False.

- b) Under Cournot competition, price can be equal to marginal cost when there is a sufficiently large number of firms in the market.

(4 marks)

False.

- c) We only need to consider demand substitutability in market definition.

(4 marks)

False.

- d) Resale price maintenance can be used to solve the free-riding problem among retailers.

(4 marks)

True.

- e) Bertrand competition applies well to the market for digital music.

(4 marks)

True.

Section C

Answer BOTH questions in this section.

Question 1:

- a) Explain how double marginalisation can arise in a market with more than one level in the distribution chain. How does this impact on firms and consumers? (18 marks)

Consider a market with one upstream firm and one downstream firm. When each firm sets its price, it does not take into account the impact it has on the other firm. The consequence is that each firm charges a positive mark-up above its cost, which leads to too high a market price that lowers industry profit and consumer welfare.

- b) How can vertical restraints be used to overcome the double marginalisation problem? (12 marks)

The answer should illustrate how RPM and Two Part tariff can overcome the problem.

Question 2:

- a) Explain how the SSNIP test is conducted in order to define the relevant market in a competition case. (15 marks)

The SSNIP test is conducted by asking whether it would be profitable for a hypothetical monopolist (if a group of firms merge together and act as a monopolist) to permanently raise prices 5-10% above the current level. If the answer to this question is yes, then the market definition includes just these firms (there are no other close enough substitutes for the product these firms sell, so that the hypothetical monopolist does not lose much demand when it

raises price). If the answer is no, this means that more firms/products should be added to the group. There are other substitutes that should be included. The test continues until the hypothetical monopolist would find a 5-10% increase in prices profitable. In this way the test establishes a group of firms/products that are sufficiently close substitutes. The test should consider demand and supply side substitution. It can also be used to define the geographic market. Good answers should include some examples of how the test is conducted.

b) Are there any problems with using this test?

(15 marks)

Answers should illustrate the problems of lack of direct data and especially using the test in non-merger cases.