1. (30%)Consider a monopolist sells its product both through the Internet channel and the conventional channel (stores). There are two types of consumers, type-1 and type-2, with their reservation prices for the product equal to θ_1 and θ_2, respectively. For simplicity, suppose that there is only one consumer for each type and denote them by consumer 1 and consumer 2. Both consumers have to incur a transportation cost **t,** if shopping through stores (conventional channel) instead of the Internet channel. On the other hand, buying the product on the Net does not allow both consumers to have the presale services that can only be provided at stores, thus reducing the willingness to pay on the Net by λ_1 and λ_2, for consumer 1 and consumer 2, respectively. Suppose that unlike consumer 1, consumer 2 is an experienced buyer and thus needs less presale service than consumer 1, i.e., $\lambda_1 > \lambda_2$. Furthermore, suppose that $t > \lambda_1 > \lambda_2$.

   (i) Suppose that the monopolist wants to induce the consumer 1 to buy through stores (conventional channel) and consumer 2 to buy through the Internet channel by choosing the optimal prices on the Net (denoted by P^N) and at stores (denoted by P^S). What would be the optimal P^N and P^S, which maximizes the monopolist's profits and implements his targeting strategy successfully?

   (ii) Is it true that the optimal Internet price is lower than the optimal price at stores for this specific case? Why or why not? Should the firm induce both consumers to buy through the Internet channel? Why or why not? Provide some marketing implications based on this model.

2. (20%)Consider two segments (for simplicity, assuming one consumer for each segment), H-segment and L-segment, in which consumers consider buying one product in a monopolist's product line that consists of two items. Their reservation prices (the willingness to pay) for the two products are as follows:

Segment\product	Product 1	Product 2
H-segment	2	4
L-segment	3/2	3

Each consumer considers buying only one product (either product 1 or product 2) and if he decides to buy, he will buy at most one unit of it to maximize his consumer surplus. Let the variable cost of product 1 and product equal 1/2 and 2, respectively. Design the optimal prices of the two products for the firm.

3. (20%)統一超商由於店數眾多，受到公平交易委員會關注，認爲它可能具備獨佔力。如果你要爲統一超商辯護，你的論點是什麼？你需要提供什麼樣的證據來佐證？

4. (15%)在高屏溪沿岸有五家製造工廠，工廠廢棄物排放在溪水中會造成下游的水質汙染。你是環保署主管人員，負責建議管制方式，你有三個方案可以考慮:(甲)收費:每排放一單位廢棄物需繳費 x 元，(乙)個別排放量管制:每一工廠最多只能排放 y 單位廢棄物，(丙)總排放量管制:整個高屏溪最多只能排放 z 單位廢棄物，現有工廠按比例分配排放許可證，許可證可以自由轉讓。請問你會建議那個方案?爲什麼?

5. (15%)SARS 當頭，有一段時間口罩嚴重缺貨，政府、民代大肆抨擊奸商發國難財。經濟學家也有各種不同的看法。請問你如何解釋缺貨、漲價等現象，並請建議政府該如何因應。