c Calculate the PES if the price of the health product falls from $48 to $45. [2]

d Explain why the PES of the health product might be so price elastic. [2]

1.3 Government intervention

Indirect taxes/Subsidies/Price controls

1 The table below shows the demand and supply schedules for Product Y.

Demand	Price ($)	Supply
30,000	10	12,000
25,000	15	16,000
20,000	20	20,000
15,000	25	24,000
10,000	30	28,000
5,000	35	32,000

a Identify the equilibrium price of Product Y. [1]

b Define the term 'price ceiling'. [2]

c Briefly explain the impact of the government imposing a price floor of $25 for Product Y. [2]

2 The table below shows the demand (Qd) and supply (Qs) schedules for Product X.

Qd	Price ($)	Qs
3,000	7	9,000
4,000	6	8,000
5,000	5	7,000
6,000	4	6,000
7,000	3	5,000
8,000	2	4,000
9,000	1	3,000

a Identify the equilibrium price of Product X. [1]

b State the amount of excess supply at a price of $5 per unit. [1]

c Assume that the government imposes a specific tax of $2 per unit on Product X. Calculate the new equilibrium price. [2]

d Calculate the total tax revenue payable to the government. [2]

e Outline how much of the tax incidence is borne by the consumer. [2]

3 The table below shows the demand (Qd) and supply (Qs) schedules for Product Z.

Qd	Price ($)	Qs
30,000	7.5	90,000
40,000	7.0	80,000
50,000	6.5	70,000
60,000	6.0	60,000
70,000	5.5	50,000
80,000	5.0	40,000
90,000	4.5	30,000

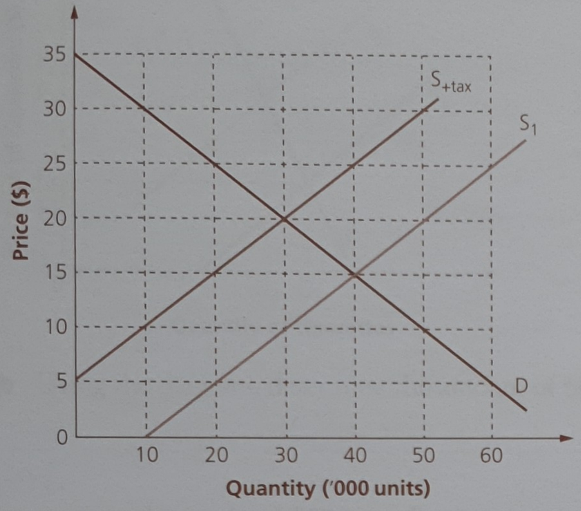
a Identify the equilibrium price and quantity. [2]

b Suppose the government grants a subsidy of $1 per unit to the producers of Product Z. Calculate the new equilibrium price and quantity. [3]

c Calculate the total cost to the government of passing on the subsidy to the producers of Product Z. [2]

d Determine the value of the incidence of the subsidy that is passed on to the consumers of Product Z. [2]

4 Refer to the diagram below and answer the questions that follow.



a Calculate the total tax revenue collected by the government from the imposition of the tax. [2]

b Calculate the incidence of tax paid by the consumer. [2]

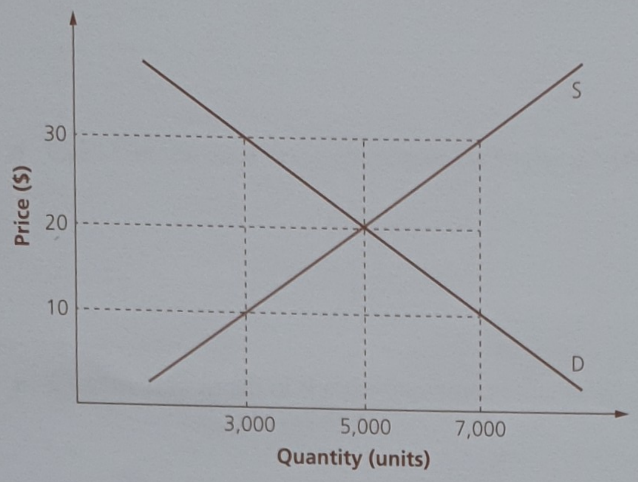
c Calculate the change in consumer spending following the imposition of the tax. [2]

d Calculate the deadweight loss resulting from the imposition of the tax. [2]

e Calculate the value of the producer surplus after the imposition of the tax. [2]

f Calculate the change in the value of consumer surplus after the tax has been imposed. [2]

5 Refer to the diagram below and answer the questions that follow.



a Explain the situation which arises if the government imposes a price floor of $30 for the product. [2]

b Calculate the change in consumer spending following the imposition of the price floor. [2]

c Calculate the change in producer revenue following the imposition of the price floor if the government buys all the surplus. [2]

d Suppose the government exports all the excess supply at $20 per unit. Calculate the amount of taxpayers' money needed to support this price control scheme. [2]