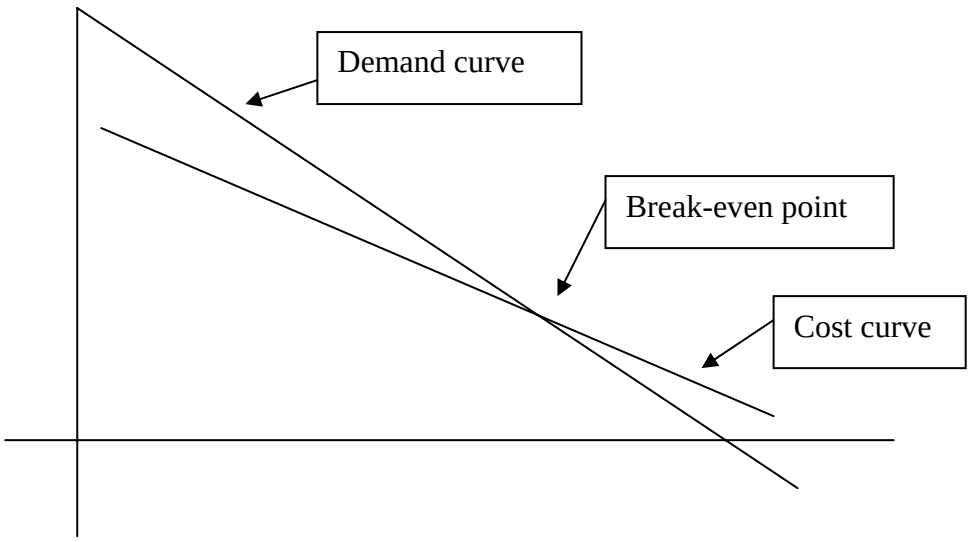
Business Studies 2001 (JAL) Paper 9 Question 5

(a) A supply curve shows the relationship between the quantity of a good that suppliers in a given market desire to sell at each price, holding other things equal

A demand curve shows the relationship between the quantity of a good that buyers would purchase at each price, holding other things equal. Normally a demand curve has price on the Y axis and Quantity on the X axis.

The point where the supply curve and the demand curve cross is the stable equilibrium point in the market. I f the market is over-supplied, prices fall and the market moves toward equilibrium. If it is under-supplied prices rise, and again the market moves towards equilibrium. However because the feedback mechanism is not perfect, and involves delays prices may oscillate about the equilibrium point. If the supply and demand curves are non-linear, this oscillation may be chaotic.

(b) A cost curve shows the relationship between the quantity and the cost of goods supplied in a given market. The point at which it crosses the demand curve (if it does) is the break-even point, where goods are supplied to the market at no profit or loss.



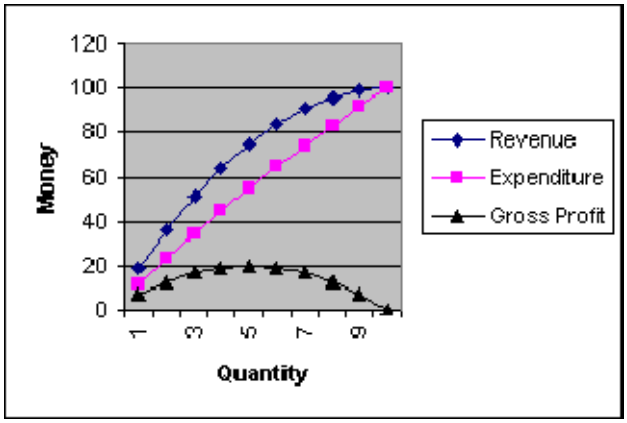
x-axis: Q – Quantity of goods

y-axis: P – Price or cost of goods

It can be very difficult to determine the cost curve of a market in practice, particularly if there are multiple suppliers to the market. Market research, such as test marketing with different prices, or correlation between market surveys offering different features at different prices may go some way to showing the market sensitivity. Historical data for goods with fluctuating prices, such as petrol, can be revealing, but other factors may also play a part and must be discounted.

(c)

Volume, k	Unit Cost	Unit Price	Profit/unit	Revenue	Expenditure	Gross Profit
Q	C	P	P-C	Q*P	Q*C	Q*(P-C)
1	11.8	19	7.20	19	11.8	7.2
2	11.6	18	6.40	36	23.2	12.8
3	11.4	17	5.60	51	34.2	16.8
4	11.2	16	4.80	64	44.8	19.2
5	11.0	15	4.00	75	55	20
6	10.8	14	3.20	84	64.8	19.2
7	10.6	13	2.40	91	74.2	16.8
8	10.4	12	1.60	96	83.2	12.8
9	10.2	11	0.80	99	91.8	7.2
10	10.0	10	0.00	100	100	0



Gross profit is quadratic with quantity. It can be solved algebraically (C=12-0.2*Q ; P= 20-Q), but it is easier numerically by extending the table.
By inspection gross profit peaks at a price equivalent to a quantity of 5, which equates to a price of 15, although it is not sensitive to small variations about this point.

(d) Economic effect of the advent of the Internet.

Large topic, but some of the following points should be noted:

Maybe a 20% productivity gain, although hard to separate from widespread adoption of computers (“The trillion dollar market” effect)
Change from smokestack to information industries
Globalisation of marketplaces; may have tax and nationality implications
Better information, leading to more perfect markets
Development of demand pricing, such as B2B auctions
Barriers to entry low; good for small producers
Bubble effect, akin to the introduction of radio and air transport in the 1920s
Possibly socially divisive between the information rich and the information poor