Determination of Prices
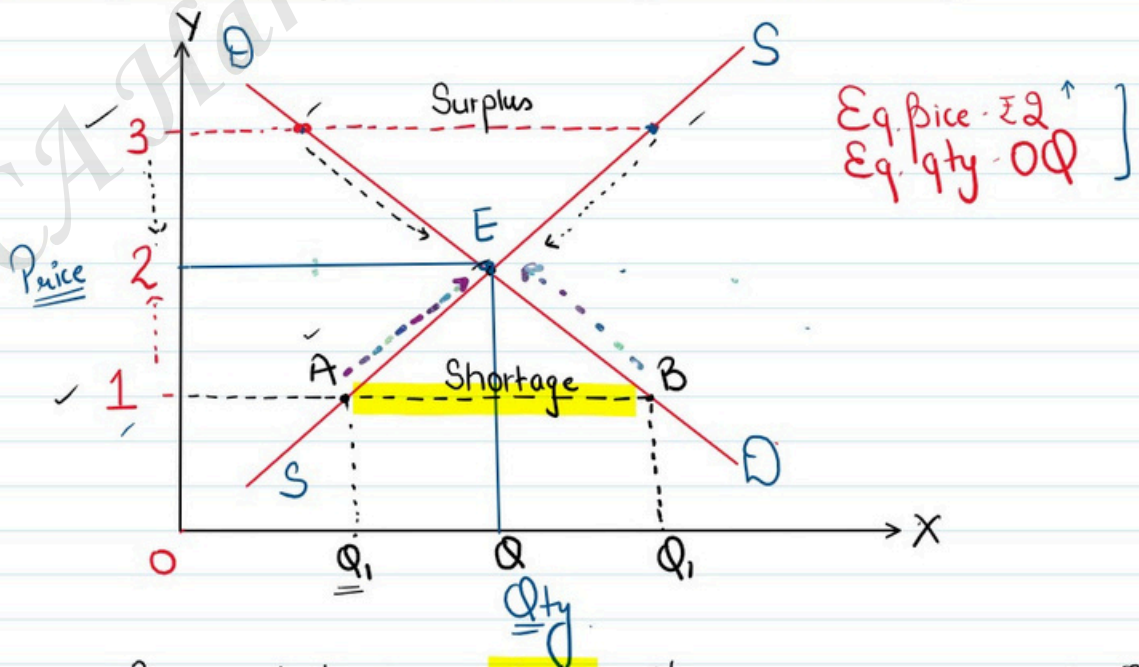
In competitive market, interaction b/w demand & Supply tends to determine equilibrium price & qty.

⇩

Qty demanded = Qty supplied

Eq. price = Market clearing price
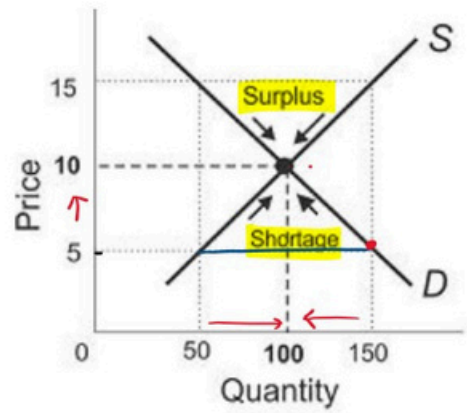
↳ At this price, there is no unsold stock.

S. No.	Price (₹)	Demand Units	Supply (Units)
1	1 ✓	60	5
2	②	35 Eq Qty	35
3	3	20	45
4	4	15	55
5	5	10	65

Eq. Price - ₹2
Eq. qty - OQ

→ Equilibrium is said to be **Stable** if any disturbance to it is self-adjusting. So that original equilibrium is restored.

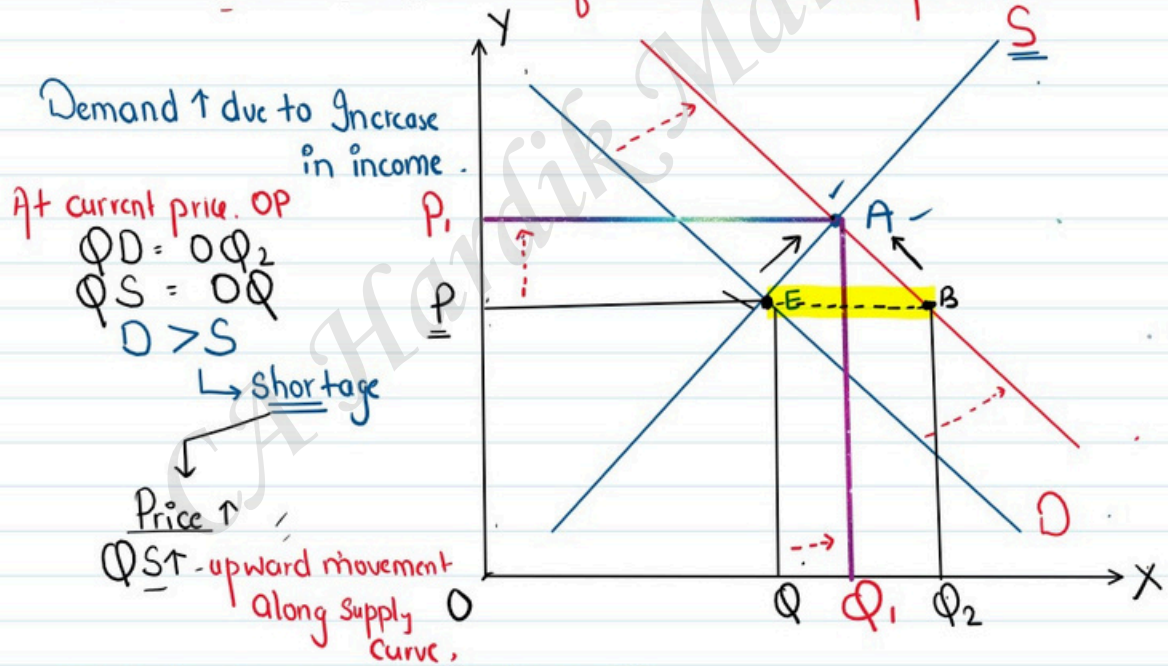is self-adjusting. So that original equilibrium is restored.

Fig 7: Stable Equilibrium

⇒ It would be
Stable if other things are constant.

* **Change in Demand & Supply**

1) ↑ in Demand - factors other than price.

Demand ↑ due to Increase
in income.

At current price. OP
$QD = OQ_2$
$QS = OQ$
$D > S$
  ↳ Shortage
      ↓
Price ↑
QS↑ - upward movement
      along supply
      curve,

New Equilibrium : Eq. Price. OP_1,
                  Eq. Qty - OQ_1.

↑ in Eq. price
↑ in Eq. Qty.

2) ↓ in Demand

2) ↓ in Demand

Demand ↓ due to ↓ in Income.

At price OP, demand is OQ_2
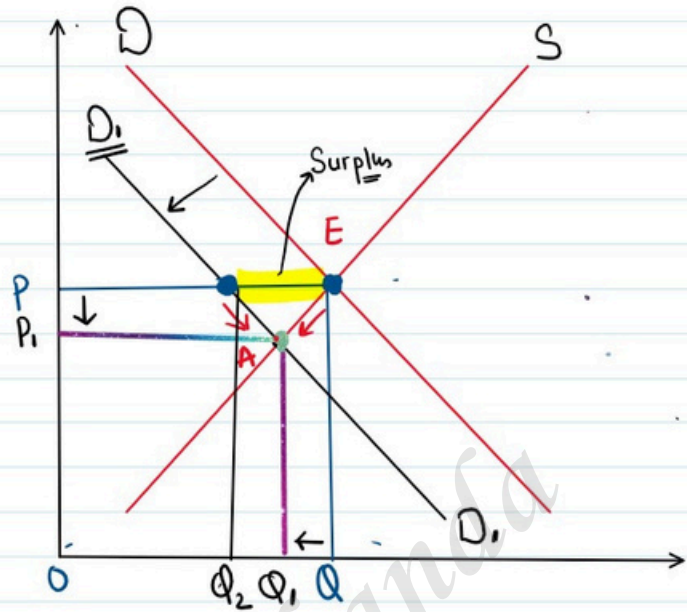   Supply is OQ

$$S > D$$
↳ Surplus
↓
Price ↓
QD ↑ - QS ↓

New Eq. at point A.
Eq. price - OP_1
Eq. Qty - OQ_1

⇒

| ↓ in Eq. price |
| ↓ in Eq. Qty. |

3] Increase in Supply

Supply inc. due to Improv in Technology

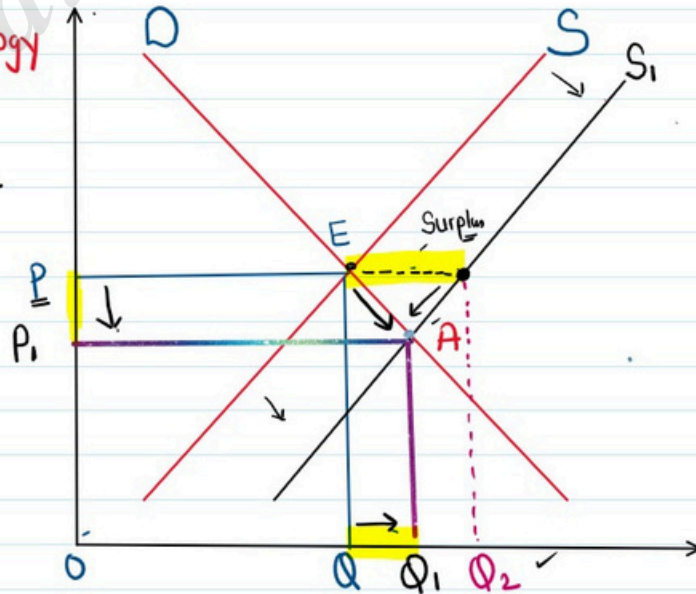At price OP, QD is OQ
            QS is OQ_2

$$S > D$$
↳ Surplus
↓
Price ↓
QD ↑. QS ↓

New Eq. at point A.
Eq. price - OP_1
Eq. Qty OQ_1

| Eq. Price ↓ |
| Eq. Qty ↑ |

4) Dec in Supply

Supply dec. due to obsolete Tech.

At price OP,

QD is OQ

QS is OQ_2

D > S

$\quad \underset{\llcorner}{}$ Shortage / Deficit

$\qquad \Downarrow$

$\qquad$ Price $\uparrow$

$\qquad$ QD$\downarrow$, QS$\uparrow$

New Eq. at point A

Eq. price is OP_1

Eq. qty is OQ_1
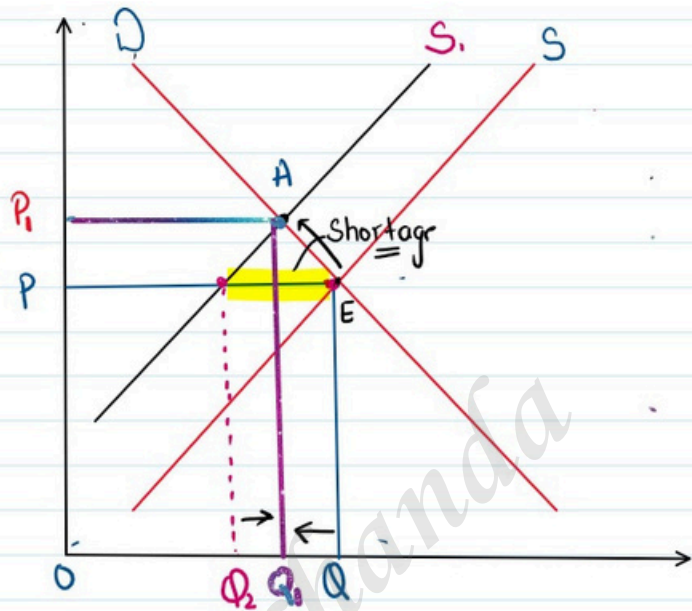
```
┌─────────────────┐
│  Eq. Price ↑    │
│  Eq. Qty ↓      │
└─────────────────┘
```
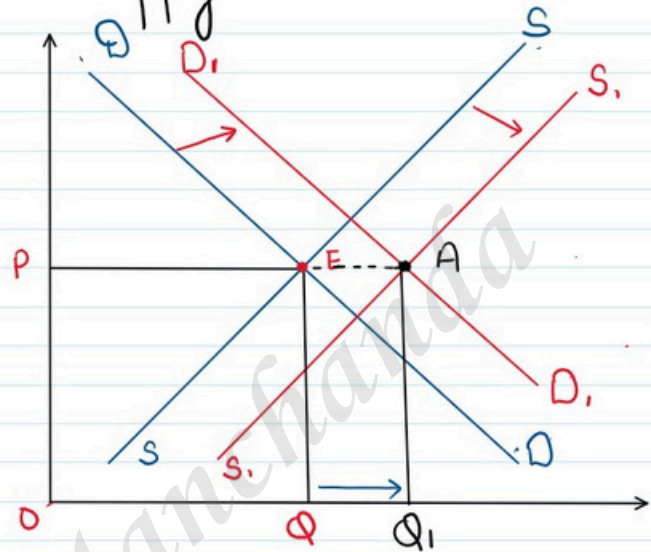
x══════x

* Simultaneous change in Demand & Supply

→ Shift in the <mark>Same</mark> direction
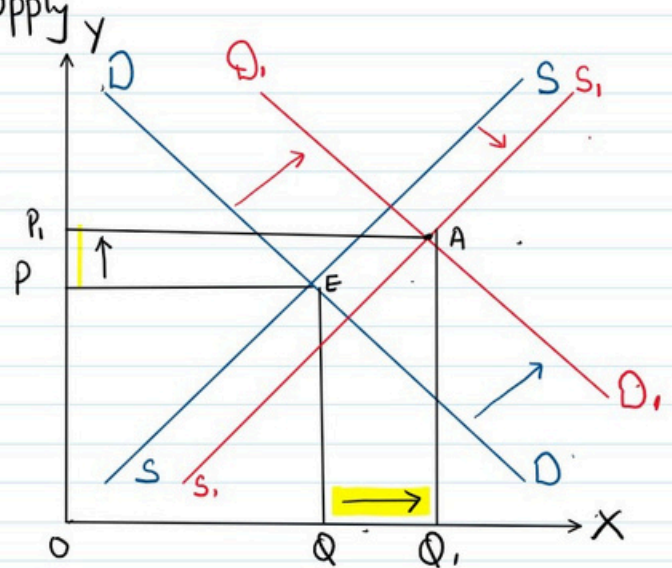
1.   Inc. in demand = Inc. in Supply

New Eq. price = old Eq. price

Eq. Qty ↑, from $OQ \rightarrow OQ_1$

2.   Inc. in demand > Inc. in Supply
                    ↓
              Shortage

→ New Eq. price OP_1 higher than old
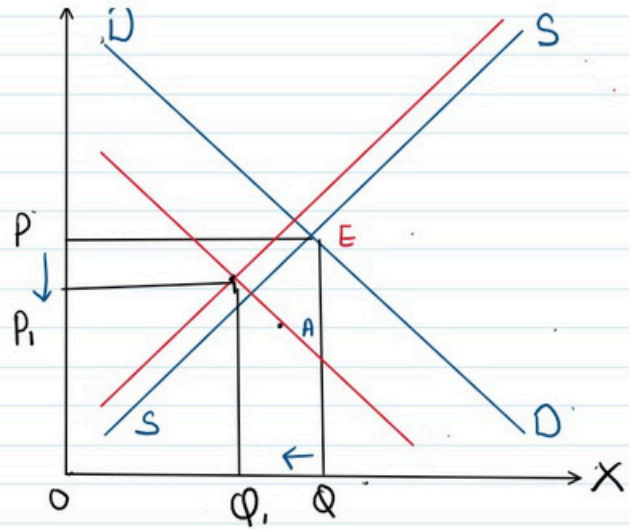   Price. OP
→ Eq. Qty ↑, from OQ to OQ_1

3.   ↓ in Demand > ↓ in Supply
                    ↓
              Surplus

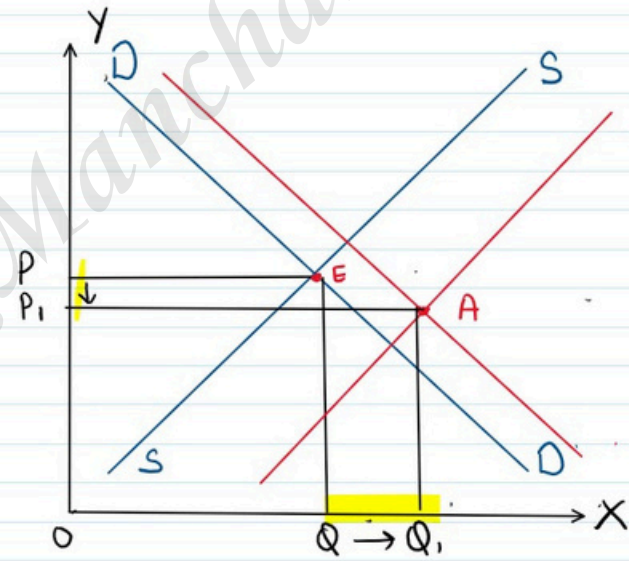Eq. Price ↓, from $OP \rightarrow OP_1$

Eq. Qty ↓ from $OQ \rightarrow OQ_1$

Eq. Qty ↓ from OQ→OQ,

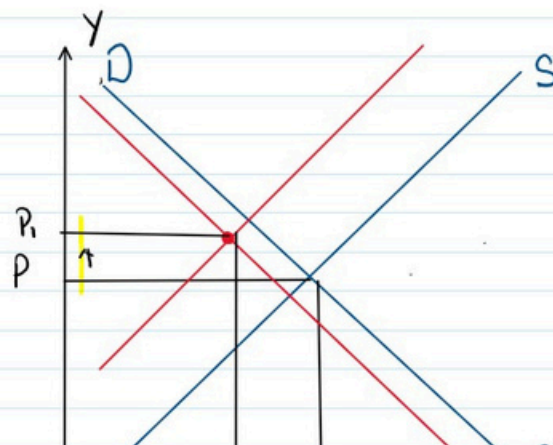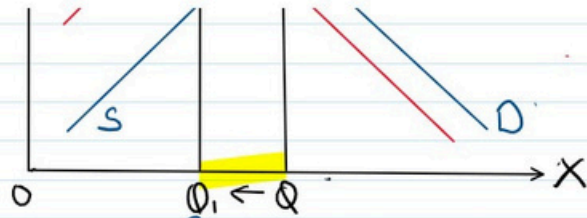4. ↑ in Supply > ↑ in Demand
          ↓
       Surplus

Eq. price ↓. from OP to OP,
Eq. Qty ↑ from OQ to OQ,

5. ↓ in Supply > ↓ in Demand
          ↓
       Shortage

Eq. price ↑. from OP→OP,
Eq. Qty ↓. from OQ→OQ,

* **Possible Outcome when Supply & demand curve shift in same direction**

i) **Both Demand & Supply ↑**
   └ Eq Qty ↑
   but change in price is uncertain

2. **Both Demand & supply ↓**
   └ Eq. Qty ↓
   but change in price is uncertain.

→ **Shift in Opposite Direction**

i) **↑ in Demand > ↓ in Supply**
   ⇊
   Shortage

· Eq. price ↑ from $OP \to OP_1$
  Eq. Qty. ↑ from $OQ \to OQ_2$
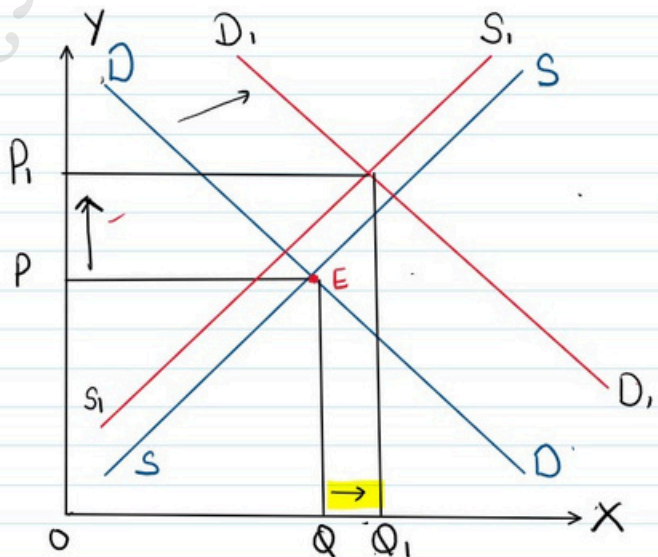
2. **↓ in Supply > ↑ in Demand**
   ⇊
   Shortage

Eq. price ↑ from OP to OP₁
Eq. Qty. ↓ from OQ to OQ.
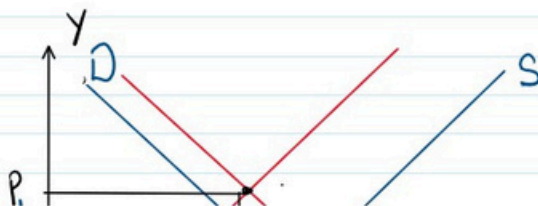
Eq. price ↑ from OP to OP₁
Eq. Qty ↓ from OQ to OQ₁
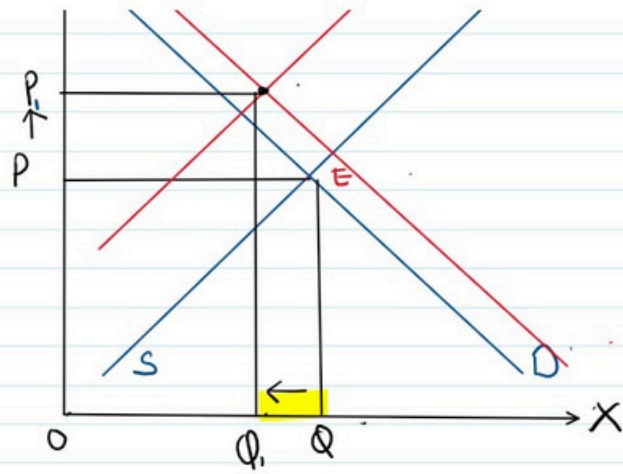
3. ↓ in Demand > ↑ in Supply
⇓
Surplus

Eq. price ↓ from OP → OP₁
Eq. Qty ↓ from OQ → OQ₁
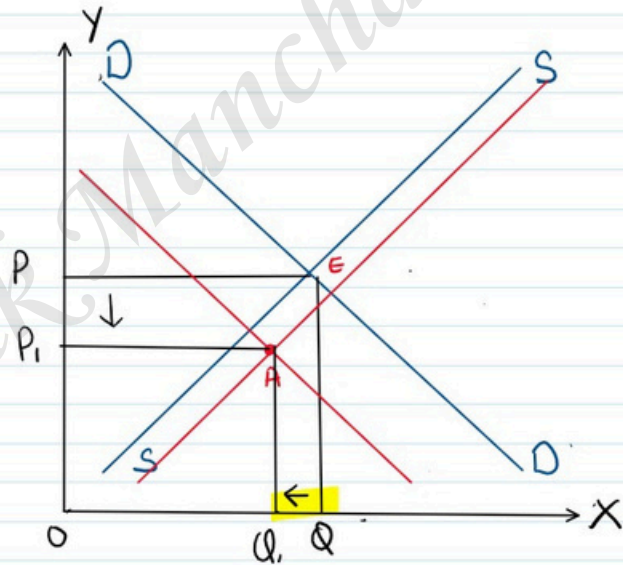
4. ↑ in Supply > ↓ in Demand
⇓
Surplus

Eq. price ↓ from OP → OP₁
Eq. Qty ↑ from OQ → OQ₁
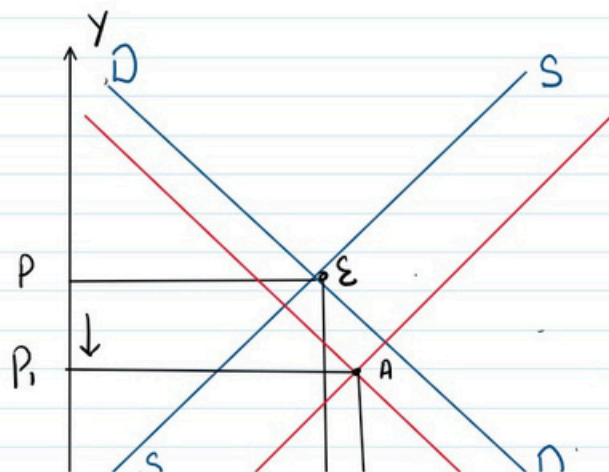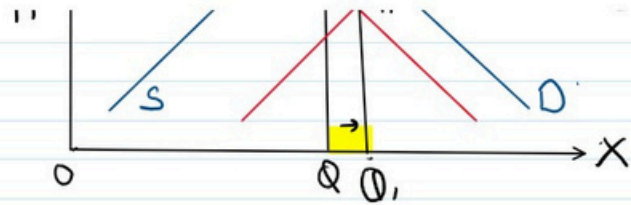
* **2 possible outcome when Supply & demand curve shift in opp. direction**

1. D↑ & S↓
   └→ Eq. Price ↑

   but,
   nothing certain can be said about change in Eq. Qty.

2. D↓ & S↑
   └→ Eq. Price ↓

   but,
   nothing certain can be said about ch. in Eq. Qty.

×— <u>Unit over</u> —×

10am - 12pm —

Multiple Choice Questions

1)   With a ==given supply curve==, a decrease in demand causes ~ *Surplus*

    (a)   an overall decrease in price but an increase in equilibrium quantity.

    (b)   an overall increase in price but a decrease in equilibrium quantity.

    ~~(c)~~   an overall decrease in price and a decrease in equilibrium quantity.

    (d)   no change in overall price but a reduction in equilibrium quantity.

2)   Assume that consumers' incomes *(D↓)* and the number of sellers *(S↓)* in the market for good A both decrease. Based upon this information, we can conclude, with certainty, that the equilibrium:

    (a)   price will increase.   (b)   price will decrease.   *Eq. Qty ↓*

    (c)   quantity will increase.   (d)   quantity will decrease.

Multiple Choice Questions

Handwritten notes (top right):
Surplus — P↓
'S↑ > D↑ → Eq. Qty ↑

3) If supply increases in a <mark>greater proportion than demand</mark>

(a) The new equilibrium price and quantity will be greater than the original equilibrium price and quantity.

(b) The new equilibrium price will be greater than the original equilibrium price but equilibrium quantity will be higher.

(c) The new equilibrium price and quantity will be lower than the original equilibrium price and quantity.

(d) The new equilibrium <mark>price will be lower</mark> than the original equilibrium and the new equilibrium <mark>quantity will be higher.</mark>

Multiple Choice Questions

4) Assume that in the market for good Z, there is simultaneous increase in demand and the quantity supplied. The result will be:

Handwritten: D↑ S↑   Qty ↑

a) An increase in equilibrium price & quantity

b) A decrease in equilibrium price & quantity

c) An <mark>increase in equilibrium quantity</mark> and uncertain effect on equilibrium price.

d) A decrease in equilibrium price & increase in equilibrium quantity.

---

5) Suppose the technology for producing personal computers improves and, at the same time, individuals discover new uses for personal computers so that there is greater utilisation of personal computers. Which of the following will happen to equilibrium price and equilibrium quantity?

Handwritten: S↑   D↑   S↑ D↑

(a) Price will increase; quantity cannot be determined.

(b) Price will decrease; quantity cannot be determined.

(c) Quantity will increase; price cannot be determined.

(d) Quantity will decrease; price cannot be determined.

Multiple Choice Questions

6) A rise in supply and demand in equal proportion will result in:
   a) Increase in equilibrium price and decrease in equilibrium quantity
   b) Decrease in equilibrium price and increase in equilibrium quantity
   c) No change in equilibrium price and increase in equilibrium quantity
   d) Increase in equilibrium price and no change in equilibrium quantity

7) Which of the following situation does not lead to an increase in equilibrium price?
   a) An increase in demand, without a change in supply   *Shortage*
   b) A decrease in supply accompanied by an increase in demand *Shortage*
   c) A decrease in supply without a change in demand *Shortage*
   d) An increase in supply accompanied by a decrease in demand *Surplus*

Multiple Choice Questions

Imp   *Demand ↑*

8) Suppose consumer tastes shift towards the consumption of apples. Which of the following statements is an accurate description of the impact of this event on the market of the apples?

Price

   a) There is an increase in the quantity demanded of apples and in the supply for apples
   b) There is an increase in the demand and supply of apples
   c) There is an increase in the demand for apples and decrease in the supply for apples
   d) There is an increase in the demand for apples and an increase in the quantity supplied.

Pₗ

P   ↑

Expansion
↳ ↑ in QS

x——x