

Exercise 01

Following equations shows demand and supply of a hypothetical market.

$$Q_d = 50 - 5p$$

$$Q_s = -10 + 5p$$

1. Calculate equilibrium price and quantity.
2. Show equilibrium price and quantity in a diagram.
3. Calculate consumer surplus at equilibrium price.
4. Calculate producer surplus at equilibrium price.
5. If government impose a price ceiling of Rs.4/- show it in the diagram.
6. What is the excess demand with price ceiling of Rs. 4/-
7. What is the maximum black market price and black market price range?
8. What is the consumer surplus & producer surplus if price ceiling operates with no black market price?
9. What is the consumer surplus & producer surplus if price ceiling operates with black market price?

Exercise 02

Following equations shows demand and supply of a hypothetical market.

$$Q_d = 150 - 3p$$

$$Q_s = -10 + 2p$$

1. Calculate equilibrium price and quantity.
2. Show equilibrium price and quantity in a diagram.
3. Calculate consumer surplus at equilibrium price.
4. Calculate producer surplus at equilibrium price.
5. If government impose a price ceiling of Rs.26/- show it in the diagram.
6. What is the excess demand with ceiling of Rs. 26/-
7. What is the maximum black market price and black market price range?
8. What is the consumer surplus & producer surplus if price ceiling operates with no black market price?
9. What is the consumer surplus & producer surplus if price ceiling operates with black market price?

Exercise 03

Following equations shows demand and supply of a hypothetical market.

$$Q_d = 180 - 4p$$

$$Q_s = -20 + p$$

10. Calculate equilibrium price and quantity.
11. Show equilibrium price and quantity in a diagram.
12. Calculate consumer surplus at equilibrium price.
13. Calculate producer surplus at equilibrium price.
14. If government impose a price ceiling of Rs.32/- show it in the diagram.
15. What is the excess demand with ceiling of Rs. 32/-
16. What is the maximum black market price and black market price range?
17. What is the consumer surplus & producer surplus if price ceiling operates with no black market price?
18. What is the consumer surplus & producer surplus if price ceiling operates with black market price?

Exercise 04

Following table shows demand and excess demand at different market prices in a hypothetical market.

Price	Qd	Ed
4	40	20
8	20	-20

01. Draw demand and supply curves using the table and determine equilibrium price and quantity.
02. Calculate consumer surplus and producer surplus at equilibrium.
03. Suppose government impose a price ceiling at Rs.4/-. What is the excess demand in the market?
04. Calculate new consumer surplus and producer surplus at price ceiling of Rs.4/- assuming no black market price
05. What is the maximum black market price of this market.
05. What is the dead weight loss after the price ceiling of Rs.4/-?

Exercise 05

Following equations shows demand and supply of a hypothetical market.

$$Q_d = 30 - 2p$$

$$Q_s = -2 + 2p$$

1. Calculate equilibrium price and quantity.
2. Show equilibrium price and quantity in a diagram.
3. Calculate consumer surplus at equilibrium price.
4. Calculate producer surplus at equilibrium price.
5. Calculate new consumer surplus and producer surplus at price ceiling of Rs.6/- assuming no black market price
6. What is the maximum black market price of this market.
7. What is the dead weight loss after the price ceiling of Rs.6/-?