1. Explain the following terms:
   - Opportunity cost
   - Law of demand
   - Change in quantity demanded and change in demand
   - Price elasticity of demand

2. State whether the following statements are True or False. Explain your answer.

a) An increase in income will always result in an increase in demand

b) Revenue is maximized where the price elasticity of demand is equal to one

c) Imposition of a price ceiling below the equilibrium price results in more people consuming that commodity

d) The incidence of a tax falls more on producers when supply is more elastic than demand

3. Consider the following two price-quantity schedules that describe the market for chocolate:
   P = Price of chocolate, in Rs. per kg
   Q = Quantity of chocolate, in kgs

Schedule A		Schedule B	
P	Q	P	Q
16	0	2	2
14	1	5	3
12	2	8	4
10	3	11	5
8	4	14	6
6	5	17	7
4	6	20	8
2	7		
0	8		

a) Which is the supply schedule, and which is the demand schedule? Explain.
b) What is the equilibrium price and quantity in this market?
c) Write down the demand curve equation and the supply curve equation.
d) Solve the equations for the equilibrium price and quantity.
e) Suppose that medical science discovers that eating chocolate lowers the risk of heart disease. Consumers respond by demanding 5 mor kgs of chocolate at every price. Write down the new demand schedule and the new demand equation.
f) Solve for the new equilibrium .
g) Starting with the original schedules, suppose a new source of chocolate is discovered, and the quantity of chocolate supplied at each price rises by 50%. Write down the new supply schedule and the new supply equation. Solve for the new equilibrium.

4) When mangoes are “in-season” they are relatively cheaper than when they are out of season, and in season, relatively greater quantities are sold. When vacations in Simla are “in-

season", greater quantities of them are also sold, but in-season rates are relatively higher than out-of-season rates. Explain this seemingly paradoxical situation using supply demand analysis.

5. Consider the following Demand and Supply equations:

$P_D = 100 - 5Q$ P = Price of imported bubble-gum
$P_S = 10 + Q$ Q = Quantity of imported bubble-gum, hundreds of boxes per week

a) Find the equilibrium price and quantity of bubble-gum that will be sold per week.
b) Find the price elasticity of demand at the equilibrium point.
c) Find the price elasticity of supply curve at the equilibrium point.
d) What revenue do sellers earn at equilibrium?
e) At what price and quantity would sellers receive maximum revenue?

7) Parliament decides that too many boxes of bubble-gum are being imported into India every week. The parliament votes to tax this imported bubble-gum by Rs. 12 per box sold.
a) What is the new equilibrium price and quantity that we would expect to find in the market if the President signs this tax into law?
b) What price would consumers now pay for a box of imported bubble-gum? What price would the importers receive for a box of bubble-gum?
c) How much revenue would the Indian government expect to raise with this tax?
d) What proportion of the tax would be paid by consumers?
What proportion of the tax would be paid by sellers?
e) How do your answers to 7(b) and 7(c) help you to answer these questions? Explain.

8. (a) If you spend all your income on two goods, show that it is impossible for both goods to be inferior.
(b) A consumer is observed to consume only one of the two goods available. Illustrate and explain in terms of the indifference curve analysis how this is possible

9. The demand for gondoliers is given by the equation P = 80 - 3 Q and the supply is given by P = 30 + 2 Q. After a lengthy strike, the City Council accedes to the gondoliers' demands and enacts a minimum wage of 62 florins per fortnight. What is the impact on equilibrium price and quantity sold?