Past Paper Question 2018 -2004

1. Law of demand and related concepts

1. State factors other than its own price, which may influence demand for a commodity. (3 marks) (A/L 2017)

2. Describe how the income and substitution effects explain the 'law of demand.' (4 marks) (A/L 2015)

3. What are the factors that determine the market demand for mobile phones? (5 marks) (A/L 2014)

4. What are the main factors influencing the direct relationship between the price and quantity. (5 marks) (A/L 2014)

5. Explain the 'law of demand'. Why does a demand curve slope downward? (4 marks) (A/L 2012)

6. List the main factors that determine the consumer demand for a good. (04 marks) (A/L 2011)

7. Distinguish between 'wants' and 'demand.' (02 marks) (A/L 2010)

8. Explain the 'law of demand' through the income and substitution effects. (04 marks) (A/L 2010)

2. Change in demand Vs. Change in quantity demanded

9. Distinguish between change in demand and change in quantity demanded. (4 marks) (A/L 2017)

3. Law of supply and related concepts

10. Define the "law of supply" and explain the reasons for this. (4 marks) (A/L 2017)

11. What is meant by "Prices of other Goods" that influence the supply of a good? (5 marks) (A/L 2014)

12. Name four major **non-price** determinants of supply for an industrial product. (04 marks) (A/L 2013)

13. Explain the "Law of Supply". (02 marks) (A/L 2008)

14. Why does the supply curve slope upwards? (03 marks) (A/L 2008)

4. Demand curve and supply curve

15. Distinguish between individual demand curve and market demand curve. (2 marks) (A/L 2018)

16. What factors are held constant in drawing a market supply curve? (4 marks) (A/L 2015)

17. "The price of personal computers has continued to fall even in the face of increasing demand." Explain the situation using an appropriate diagram. (05 marks) (A/L 2011)

18. Identify **five** factors that could cause shift in the market supply curve. (05 marks) (A/L 2008)

5. Normal, Inferior and Giffen goods

19. "A Giffen good is an inferior good, but an inferior good is not necessarily a Giffen good." Explain. (4 marks) (A/L 2018)

20. Distinguish between a 'normal good,' 'inferior good' and a Giffen good.' (03 marks) (A/L 2011)

6. Elasticities of demand

21. What is meant by price elasticity of demand? (2 marks) (A/L 2018)

22. What factors determine the price elasticity of demand for a consumer good? (04 marks) (A/L 2016)

23. Why is a downward-slopping linear demand curve more price elastic at higher price ranges and more price inelastic at lower price ranges? (04 marks) (A/L 2016)

24. Given the income elasticities of demand of the following goods, how would you classify the following goods as 'luxury', 'necessity' and 'inferior' goods? (A/L 2016)

a)	Bottled water	1.3	
b)	Cowpea	-0.8	
c)	Bread	0.5	
d)	Mobile Phone	1.8	(04 marks)

25. Name three factors determining the price elasticity of demand. (03 marks) (A/L 2010)

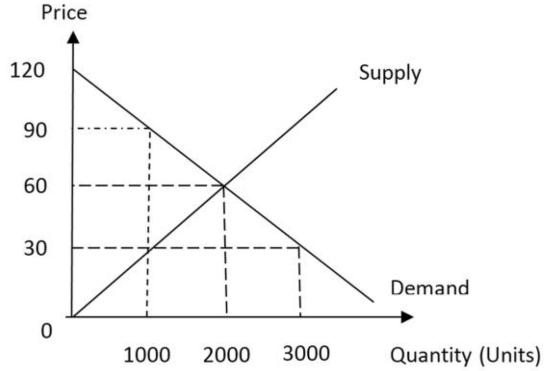
26. A market researcher obtains the following information about the demand for good X. (A/L 2004)
    a) If the price of good X increases by 25%, 5% fewer units of good X are sold.
    b) If consumer income increases by 4%, 8% more units of good X are sold.
    c) If the price of good Y increases by 1%, 5% fewer units of good X are sold.

    Based on each of the possible events described above, answer the questions below:

i) What is the income elasticity of good X? (3 marks)
ii) What is the price elasticity of good X? (3 marks)
iii) What is the cross-price elasticity of good X in relation to good Y? (3 marks)
iv) Is good X a complement or a substitute for good Y? (3 marks)
v) Is the demand for good X elastic or inelastic? (3 marks)

7. <u>Imposing taxes on goods and services</u>

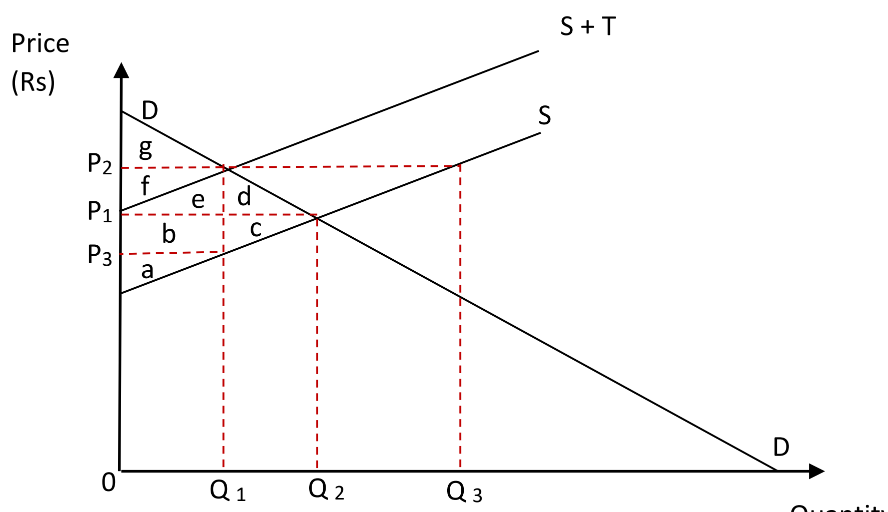
27. The diagram below shows demand and supply curves for a good sold in a competitive market. Assume that the government has now imposed an excise tax of Rs. 60 per unit on producers in this market. (A/L 2016)



a) By how much will consumer surplus change as a result of the tax? (02 marks)
b) By how much will producer surplus change as a result of the tax? 02 marks)
c) How much revenue will the government collect from the excise tax? (02 marks)
d) Calculate the dead-weight loss created by the tax. (02 marks)

28. Who pays most of the burden of a specific (unit) tax on producers when supply is inelastic? Explain your answer using an appropriate diagram. (4 marks) (A/L 2015)

29. In this diagram, DD represents demand curve, S and S + T represent respectively supply curve before and after specific production tax imposed by the government. (A/L 2011)



a) At the equilibrium price before the tax is imposed, what area represents consumer surplus? What area represents producer surplus? (02 marks)
b) After the tax is imposed on the producers, what area represents the consumer surplus? What area represents producer surplus? (02 marks)
c) What area represents the dead-weight loss of the tax? (02 marks)
d) What area represents the revenue raised by the government? (02 marks)

8. Granting subsidies on goods and services

30. Using a demand and supply diagram, explain how the granting of a production subsidy on a good would affect the surplus enjoyed by the producers. (4 marks) (A/L 2017)

9. Government interventions

31. What are the economic consequences of a maximum price for an essential consumer good imposed by the government? (5 marks) (A/L 2017)

32. Distinguish between a price floor and a price ceiling and give an example of each. (4 marks) (A/L 2015)

10. Market equilibrium

33. The following equations describe the market demand and supply functions of a commodity. (A/L 2015)

$Q_d = 100 - 4P$ (Demand) $Q_S = -30 + 6P$ (Supply)

a) Calculate the equilibrium price and quantity using the equations and show this equilibrium accurately on a graph. (2 marks)
b) Calculate producer surplus and consumer surplus at market equilibrium and show them on a graph. (2 marks)

34. For an equilibrium in a free market, the minimum quantity supplied should be less than the maximum quantity demanded. Explain this statement using a diagram. (5 marks) (A/L 2014)

11. Market equilibrium and imposing taxes

35. The demand and supply equations for a particulate good are given bellow; (A/L 2014)

$Qd = 150 - 5P$ (Demand equation)

$Qs = 78 + 10P$ (Supply equation)

Calculate the following using the above information;

i) Market equilibrium price and quantity. (2 marks)
ii) Value of consumer surplus at the market equilibrium. (3 marks)
iii) The values of price elasticity coefficient of demand and supply at the equilibrium. (4 marks)
iv) If the government imposes a unit tax of Rs. 1.50 on this good.
   a) New equilibrium price and quantity after the tax. (2 marks)

b) Tax revenue of the government. (3 marks)
c) The influence of tax on consumer surplus. (3 marks)
d) The value of dead weight loss to the society due to the tax (3 marks)

36. Some of the data relevant for market demand and supply schedules are given below. (A/L 2013)

Price (Rs.)	Quantity Demanded (Q_d)	Quantity Supplied (Q_s)
4	84	12
8	68	44

a) Assuming that both demand and supply curves are linear, derive the equations for market demand and supply curves. (04 marks)
b) Compute the equilibrium price and quantity using demand and supply equations. (04 marks)
c) Assuming that the government imposes a specific tax of Rs. 3 per unit and compute the price received by the producers after the tax and the tax revenue of the government. (04 marks)

37. Assume that the market demand curve for sugar is $Q_d = 260 - 3P$ and the market supply curve of sugar is $Q_s = -140 + 2P$ (A/L 2010)
a) Suppose the government imposes an excise tax of Rs. 5 per unit of sugar. What is the price the consumers pay for a unit of sugar after the tax is implemented? (02 marks)
b) What is the change in consumer surplus as a result of the tax? (04 marks)

38. The following table shows market demand and supply schedules of commodity X. (A/L 2006)

Price per Unit (Rs.)	Quantity Demanded	Quantity Supplied
4	16	4
6	12	6
8	8	8
10	4	10
12	0	12

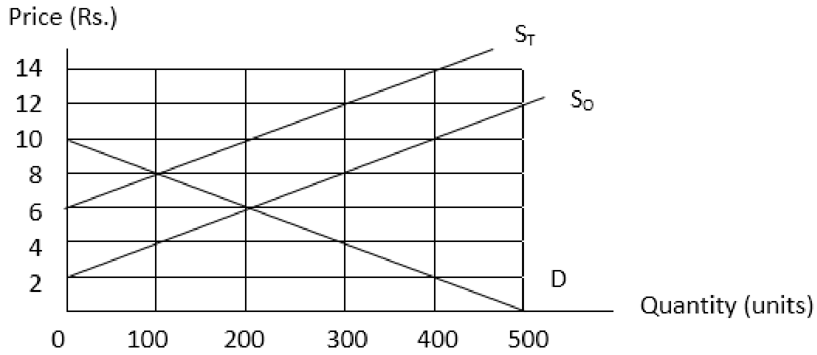
i) Draw the market demand and supply curves from the data given in the above table and estimate the equilibrium price in the market? (3 marks)
ii) Assume that the government now imposes a ~~value added tax of 50%~~. Show the effect of this on the diagram. (2 marks)
unit tax Rs. 4/-
iii) What is the new equilibrium price and quantity? (2 marks)
iv) What is the tax per unit? (2 marks)

v) What is the incidence of tax per unit on (i) the consumers and (ii) the producers? (2 marks) Tax burden

vi) What is the total government revenue from the tax? (2 marks)

By how much will the before tax revenue of producers change? (2 marks)

39. (A/L 2004)



Answer the following questions using the graph below that shows the effect of a unit tax on producers.

i) What is the equilibrium price and quantity before the tax and after the tax?(2 marks)

ii) What is the amount of total tax brome by the consumers? (2 marks)

iii) What is the total tax revenue collected after the tax is implemented? (3 marks)

iv) What is the producer surplus when the market is in equilibrium before the tax?(4 marks)

v) What is the consumer surplus when the after the tax? (4 marks)

12. Market equilibrium, imposing taxes and granting subsidies

40. The market demand and supply functions for a commodity sold in a competitive market are given below: (A/L 2005)

Q_D = 20-P (demand function) Q_S = -8 + 6P (supply function)

i) Determine the equilibrium price and quantity of this commodity. (4 marks)

ii) Suppose demand function changes to QD = 36 – 5P while supply function remains unchanged. Determine the new equilibrium price and quantity. (4 marks)

iii) Suppose supply function changes to QS = -10 + 4P while the market demand function remains unchanged at its original level. What will be the new equilibrium price and quantity? (4 marks)

iv) Draw a diagram to show the conditions described in parts (a), (b) and (c). (3 marks)

13. Market equilibrium and government interventions

41. Consider that farmers who cultivate pumpkins in a certain country are having a hard time making a living selling pumpkins. The current demand and supply conditions in the pumpkin market are given by the equations below. (A/L 2018)

Demand (Q_D) = 350 – 10 P Supply (Q_S) = -40 + 5 P

P is price in Rupees per Kg. and Q is quantity in metric tons.

a) What are the market equilibrium price and quantity? (2 marks)

b) Suppose the government decides to help farmers by implementing a deficiency payment scheme. Under this scheme, the government will guarantee farmers that they will receive Rs. 30 per kilogram of pumpkin, and just asks that they sell all of the pumpkins they produce at whatever price they can get it from the market. How much pumpkins will the farmers supply to the market now? (2 marks)

c) What price do farmers need to charge in order to sell the entire supply? (2 marks)

d) How much will farmers receive from the government as deficiency payment? (2 marks)

e) Calculate the consumer surplus and producer surplus after the introduction of deficiency payment scheme. (4 marks)

42. Suppose the following equations describe the market demand and supply functions of a commodity. (A/L 2012)

Q_d = 50- 5P Q_s = -10 + 5P

a) Solve the equations to determine the equilibrium price and quantity. (4 marks)
b) Calculate the price elasticity of demand at the equilibrium price. (2 marks)
c) Suppose now government introduces a guaranteed price of Rs. 8 per unit, for the producers in this market. What would be the total cost of this price support scheme to the government? (4 marks)
d) Estimate the value of the consumer surplus and the producer surplus under the guaranteed price. (6 marks)

43. The demand and supply curves for a good sold in a competitive market are given by the following equations;

Q_d = 30- 2P Q_s = -2+2P

In the equations above, Q_d and Q_s are the quantities demanded and supplied respectively and P is the price in rupees. (A/L 2009)

a) Determine the equilibrium price and quantity for this market. (04 marks)
b) Calculate the producer surplus at equilibrium. (04 marks)
c) What is the price elasticity of demand at equilibrium? (04 marks)
d) Suppose the government imposes a floor price equal to Rs. 10 per unit without taking any price supportive action, What will be the excess demand or excess supply in the market resulting from the floor price?(04 marks)

44. The market supply and demand for lime are described by the following equations:

Supply: Qs = -10 + 20 p; Demand; Qd = 50 - 10p

(Price (p) is in rupees and quantity (Q) is lime per week in millions.) (A/L 2008)

a) Draw the market supply and demand curves in a diagram. (02 marks)
b) What are the market equilibrium price and quantity? (02 marks)
c) Suppose the government decides to offer the farmers a guaranteed price of Rs. 2.50 per lime. How much lime will the farmers supply now? (02 marks)
d) What will be the market price when the total output comes to the market? (02 marks)
e) How much total money will the farmers receive from the government each week? (03 marks)