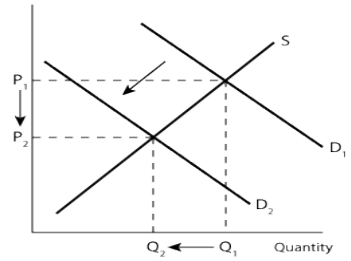
# ECS 1501

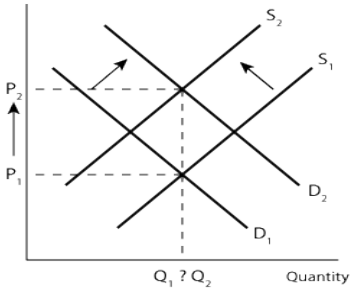
## May / June 2015 Exam Recommended Answers

1. 3
2. 2, resources are used efficiently at all points on the PPF.
3. 3, only the y intercept increased as a result of the outward shift of the PPF from AC to BC, thus there must have been an improvement in labour productivity in only the industry producing good Y.
4. 3
5. 2, the other options are studies in macroeconomics, not in microeconomics.
6. 3, this is the only positive statement, because the accuracy can be tested against facts. The rest are normative statements, because it is based on opinion.
7. 4, the question of for whom to produce depends on income distribution and income distribution generate different demand patterns which determines what should be produced.
8. 2
9. 2
10. 4, it is the other way around. Firms are sellers in goods markets and buyers in factor markets, while households are sellers in factor markets and buyers in goods markets.
11. 1, definition of stock and flow variables.
12. 1
13. 1, when income decreases, demand for normal goods decreases.
14. 3, if airline tickets and car rentals are complements in consumption, we use them together. When the price of airline tickers increases, the quantity demanded of airline tickets decreases. Because we buy less airline tickets, we will rent cars less often. Thus, the demand for car rentals decreases.
15. 4, when the price of a factor of production decreases, the cost of production decreases, thus supply of the product will increase (supply curve will shift to the right).
16. 2, an increase in the price of coffee will lead to a fall in the quantity demanded of coffee, thus there will only be an upward movement along the demand curve, rather than a shift of the demand curve. Changes in determinants of quantity demanded OTHER than the price of the product will lead to a change in demand and a shift of the demand curve.
17. 4, when a farmer pants more cabbage, supply of cabbage will increase, thus the supply curve will shift to the right.
18. 3, at a price of R35, the quantity demanded (180) is greater than the quantity supplied (100), thus there will be a shortage (excess demand) equal to 180 – 100 = 80 hamburgers.
19. 3, At equilibrium Qd = Qs
    → 1 + P = 2 – P
    → 2P = 1
    → P = 1/2
20. 2, Qs = 1 + P = 1 + ½ = 1 ½
21. 3, an increase in supply is illustrated by a rightward shift of the supply curve, while an increase in the quantity supplied is illustrated by an upward movement along the supply curve.

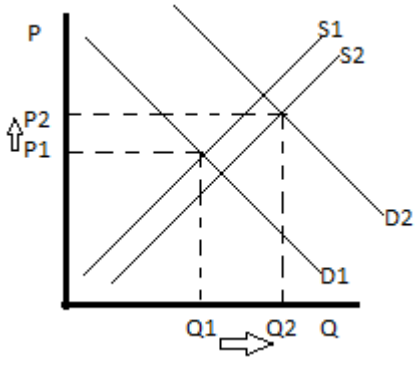
22. 1, inferior good: when income decreases, your demand for the good increases (buy more of the good)
23. 1, when the price of patties increases, the cost of producing hamburgers increases which will result in a decrease in supply and the supply curve will shift to the left, from S2 to S1. When people become more health conscious regarding the risk of heart diseases from eating hamburgers, people will demand less hamburgers and the demand curve will shift to the left, from D2 to D1.
24. 2, a decrease in demand is illustrated by a leftward shift in the demand curve. Thus the equilibrium price and output quantity decreases.




25. 1, an increase in income leads to an increase in demand, thus the demand curve will shift to the right.
26. 1, an increase in the cost of the machinery used to produce soft drinks increases the cost of production, thus supply decreases and the supply curve will shift to the left.
27. 2




28. 1, proportional increase in demand is greater than proportional increase in supply.




29. 1, during rush hour people are less sensitive to a price change than in the afternoon. Thus demand is less elastic in rush hour than in the afternoon.

30. 2, when demand is price inelastic, TR and price moves in the same direction, when price increases, TR increases.
31. 1

$$Ed = \frac{\%\Delta Qd}{\%\Delta P} \rightarrow 0.4 = \frac{5}{\%\Delta P} \rightarrow \%\Delta P = \frac{5}{0.4} = 12{,}5\%$$

Thus, if they increase the price of water with 12,5% the quantity demanded (consumption) will decrease with 5%

32. 3

$$Ed = \frac{\%\Delta Qd}{\%\Delta P} \rightarrow 0.5 = \frac{\%\Delta Qd}{10} \rightarrow \%\Delta Qd = 0.5 \times 10 = 5\%$$

Thus, if the price increases with 10% the quantity demanded will decrease with 5%

33. 2
34. 3, positive marginal utility → total utility is increasing. Marginal utility decreases as consumption of the good increases → total utility increases and a decreasing rate.
35. 2
36. 3

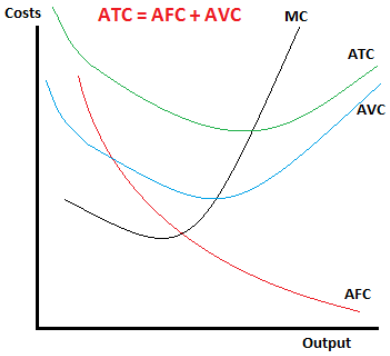
| | **Bananas** | | **Apples** | |
|---|---|---|---|---|
| **Units** | **MU** | **MU/$P_B$** | **MU** | **MU/$P_A$** |
| **1** | 24 | 12 | 16 | 16 |
| **2** | 16 | 8 | 13 | 13 |
| **3** | 12 | 6 | 12 | 12 |
| **4** | 6 | 3 | 8 | 8 |
| **5** | 4 | 2 | 5 | 5 |

Maria will consume 2 bananas and 4 apples, because then she spends her total income (2*R2 + 4*R1 = R8) and the weighted marginal utilities are equal ($MU/P_B = MU/P_A = 8$).

37. 2, c is false, because total utility in equilibrium is equal to 40 + 49 = 89
38. 4, when the price of a good increases, quantity demanded decreases, vice versa. (Law of demand)
39. 3, TR = P*Q
40. 4, $TR_6 = 42.5 + 2.5 = 45$

| **Q** | **TR** | **AR** | **MR** |
|---|---|---|---|
| **1** | **10** | 10 | |
| **2** | 15*2 = 30 | **15** | 30 – 10 = 20 |
| **3** | 30 + 6 = 36 | 36/3 = 12 | **6** |
| **4** | 10*4 = 40 | **10** | 40 – 36 = 4 |
| **5** | **42.5** | 42.5/5 = 8.5 | 42.5 – 40 = 2.5 |
| **6** | 42.5 + 2.5 = 45 | 45/6 = 7.5 | **2.5** |

41. 3, See table
42. 1, See table
43. 2
44. 4, definition of the law of diminishing returns
45. 3, marginal cost reaches a minimum when marginal product reaches a maximum.
46. 2, see graph on next page




47. 1, see graph above
48. 3, the demand curve faced by a firm under perfect competition is illustrated by a horizontal line at the market price, thus demand is perfectly elastic.
49. 4
50. 1, under perfect competition, AR = MR = P
51. 1
52. 2, definition of the supply curve of a firm in perfect competition.
53. 1, when economic profit is zero, the firm makes normal profit.
54. 3, profit maximization rule: MC = MR and in perfect competition MR = P → MC = P
55. 2, TR = P*Q = R20*100 = R2000
56. 1, 100 units, because this is the quantity where MR = MC
57. 4, in the long run economic profit is zero.
58. 3
59. 4
60. 3, collusion is possible in an oligopoly.
61. 1, maximum price under the equilibrium price leads to an excess demand / shortage, because quantity demanded will be greater than quantity supplied.
62. 2, a minimum price will only have an effect if it is set above the equilibrium price.
63. 4
64. 2, determinants of the quantity of labour supplied, <u>other</u> than the wage, will lead to a change in the supply of labour (shift of the supply curve).
65. 4, a change in the wage leads to a movement along the demand for labour curve, because the quantity of labour demanded changes.
66. 2
67. 2, demand for labour = MRP = MPP*P, MPP slopes downward as a result of the law of diminishing returns, thus MRP also slopes downward.
68. 2, non-wage benefits such as pension, medical etc.
69. 4, labour should be homogeneous
70. 2, MCL for the firm is a horizontal line at the wage rate.