

1 DISCUSSION OF ASSIGNMENT 01, FIRST SEMESTER 2018

1.11 The correct option is [1] as the statement is true.

The problem of choice arises from unlimited wants, which have to be satisfied with limited means. The limited means refer to limited factors of production that are available to produce goods and services. Depending on the availability of these factors of production, choices have to be made about what, for whom and how goods should be produced. See section 1.1 of the study guide.

1.12 The correct option is [2] as the statement is false.

Demand refers to the quantities of a good or service that potential buyers are willing to buy at different prices, given that they have the means to buy the goods and services. In other words, demand for a good and service has to be backed up by buying power (income). Demand should be distinguished from wants and/or desires because without the necessary resources, a desire remains ineffective. Refer to section 3.2 of the study guide.

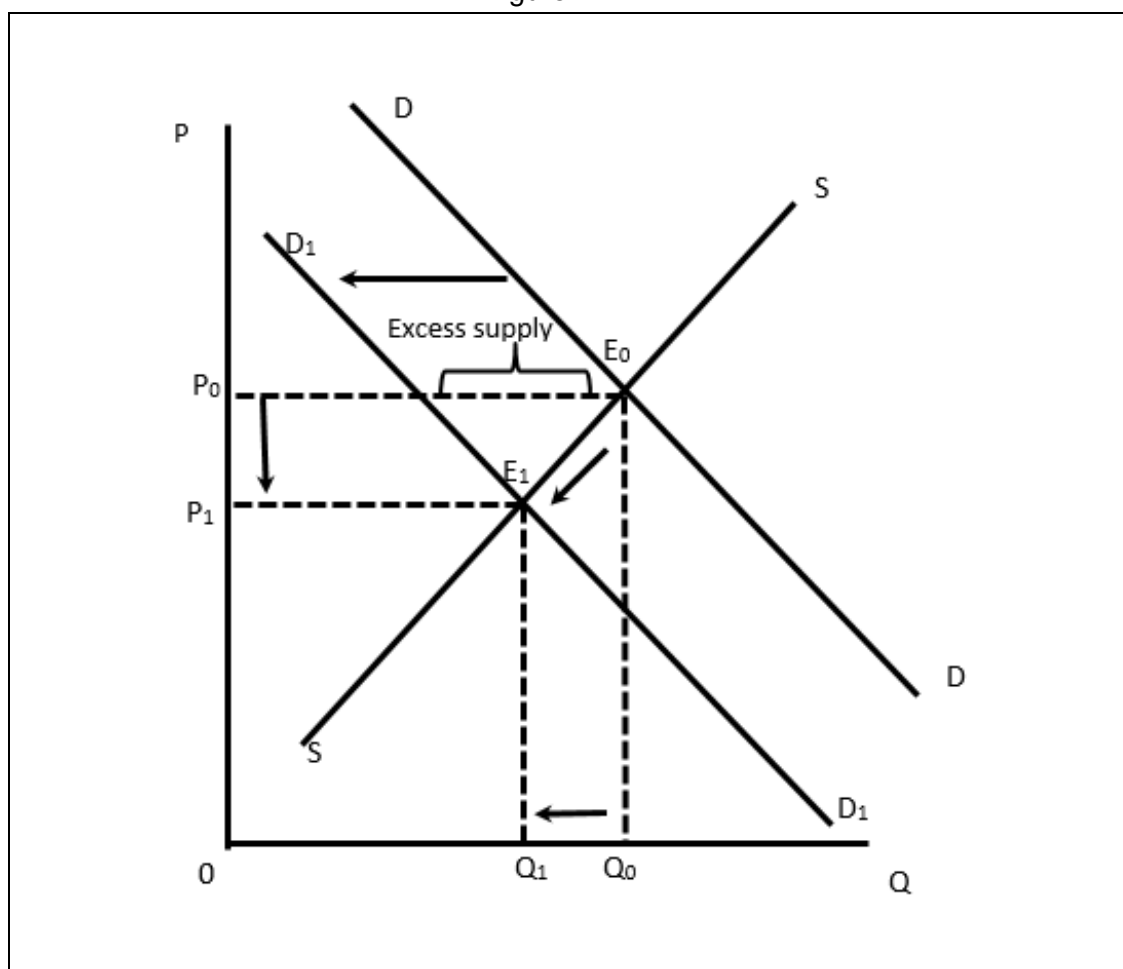
1.13 The correct option is [2] as the statement is false.

A change in demand is caused by a change in any of the demand determinants (income, price of substitutes, preferences, population, etc), except the price of the product. A change in any of these demand determinants (excluding the price level) will cause the demand curve to shift. A change in the quantity demanded, on the other hand, is caused by a change in the price of the product and this is illustrated by a movement along the demand curve. Refer to section 3.2.3 of the study guide.

1.14 The correct option is [2] as the statement is false.

Inferior goods are negatively related to income. If chicken is regarded as an inferior good, an increase in the income of households leads to a lower consumption of chicken. We can illustrate this by a leftward shift of the demand curve to D' as illustrated in figure 1. At the original price, P_0 excess supply will exist and this will result in a decrease in the price level (to P_1 in figure 1).

Figure 1



1.15 The correct option is [2] as the statement is false.

A market consists of all the buyers (those that demand the product) *and* all the suppliers (see the study guide, section 3.1). The equilibrium price and quantity are determined by the interaction of demand and supply.

1.16 The correct option is [4].

Microeconomics focuses on individual parts of the economy. In microeconomics the decisions of individual consumers, households, firms or other organisations are considered in isolation from the rest of the economy. In this case, the decision of Blue-Pink to establish a market in New York is an individual firm's decision and thus this study will be regarded as a microeconomic study.

Options [1], [2] and [3] are incorrect because they are concerned with the economy as a whole, which is the study area of macroeconomics. Refer to section 6.1.1 of the study guide.

1.17 The correct option is [3].

Money does not form part of the factors of production because although it can be *exchanged* for goods and services, money cannot **produce** goods and services. It merely serves as a medium of exchange. The four main factors of production include natural resources (or land), labour (workers), capital and entrepreneurship. Refer to section 1.1.1 of the study guide.

1.18 The correct alternative is option [2].

Economists do not only consider explicit monetary costs (often called accounting costs) but also implicit costs. For the economist the cost of something also includes what you have to give up, for example the cost of a recreational activity may include forgone income.

The opportunity cost of a particular activity will not decrease as more of that activity is pursued. If Jack has to choose between studying and working, the opportunity cost of studying includes the wage he forfeits, and this will not decrease when he studies more and works less. Thus option [4] is not correct. Option [1] is not correct as opportunity cost includes all cost; it does not measure the benefit. To make a decision, the benefit has to be compared with the cost of the activity. The opportunity cost of a particular activity will not be the same for everyone, for example, the wages that a doctor gives up when engaging in a recreational activity will not be same as the wages that a student who works as a waiter gives up.

Options [1], [3] and [4] are thus incorrect.

Opportunity cost is discussed in section 1.1.2 of the study guide.

1.19 The correct alternative is option [2].

The opportunity cost of a choice is the value to the decision maker of the best alternative that could have been chosen but was not chosen. In this case, if John chooses to read two chapters of a novel, he could have typed 200 words instead. Therefore, the opportunity cost of reading two chapters is the 200 words he could have typed instead.

1.20 The correct option is [2].

There are various variables that are unrelated to one another, for example the price of potatoes has no influence on a student passing his/her examination. The non-relationship is shown by either a horizontal line or a vertical line. Option 1 is incorrect as it is indicated that the two variables are related.

Option [3] is incorrect because a straight curve (linear relationship) with a positive slope illustrates variables that have a direct relationship while a straight curve with a negative slope illustrates variables that have a negative relationship. Refer to section 2.3 of the study guide.

1.21 The correct option is [2].

The market is in equilibrium when the quantity demanded is equal to the quantity supplied. In other words, market equilibrium takes place at the price where the plans of households (demanders) coincide with the plans of firms/producers (suppliers). At this point none of the participants has any incentive to change their behaviour because they are totally content with the situation. Refer to section 3.4 of the study guide.

Demand and supply can, by definition, not be equal as this will imply that the demand and supply curves look the same, which is not true. Therefore option [1] cannot be correct. For the same reason options [3] and [4] are not correct as the definitions of demand and supply render both these statements impossible.

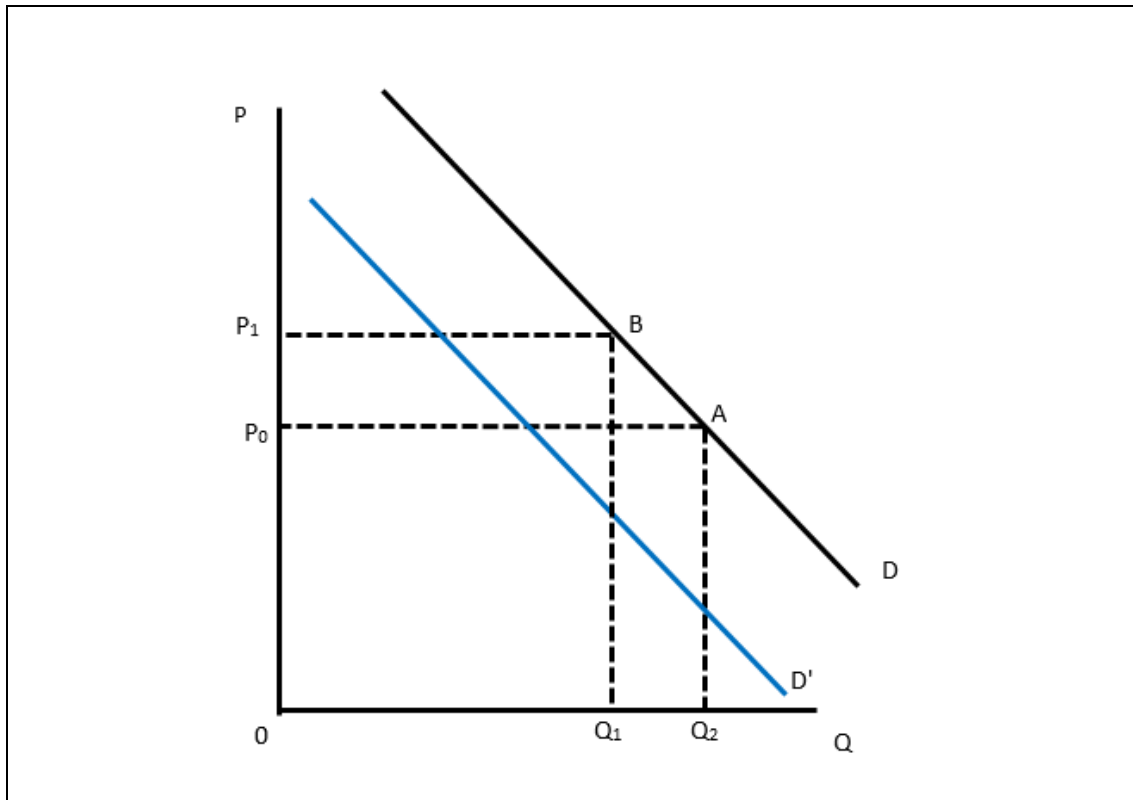
Options [1], [3] and [4] are thus incorrect.

1.22 The correct option is [3].

A change in the quantity demanded is caused by a change in price of a product and this is illustrated by a movement along the demand curve, for example from point A to point B along demand curve D in figure 2. In the figure the increase in the price from P_0 to P_1 results in a decrease in the quantity demanded from Q_2 to Q_1 .

A change in demand is caused by any determinants of demand except the price of the product, and this will be illustrated by a movement or a shift of the demand curve. For example a decrease in demand is illustrated by a shift of the demand curve to the left from D to D' in figure 2. Therefore option [1] is not correct.

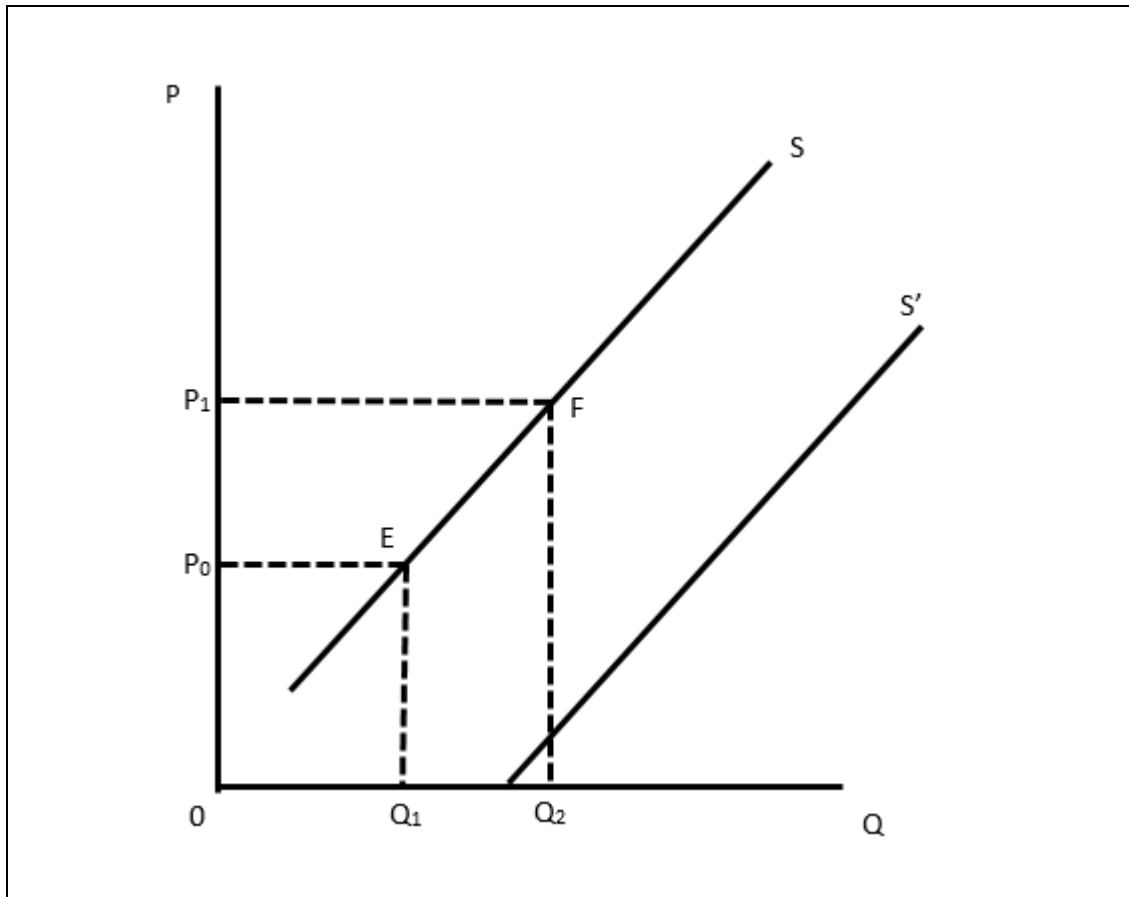
Figure 2



Option [2] is incorrect because supply will be affected by any other factor except the price of the product. For example, an increase in supply is illustrated by a shift of the supply curve in figure 3 from S to S' .

Option [4] is incorrect because an increase in the price of a product will result in an *increase* in the quantity supplied of that product. This is illustrated by a shift along the supply curve in figure 3 from point E to point F .

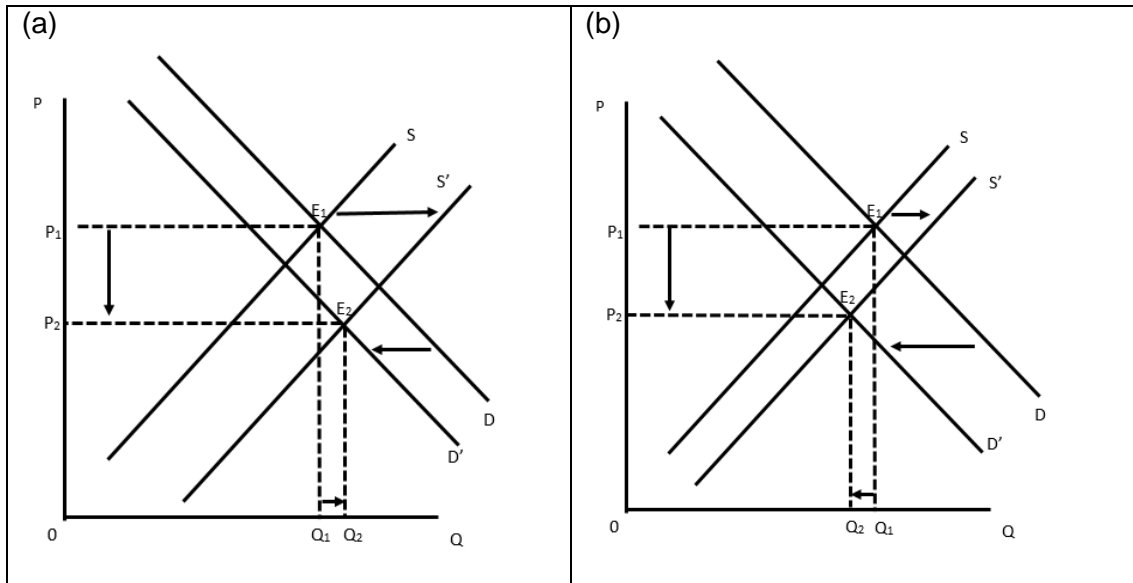
Figure 3



1.23 The correct option is [3].

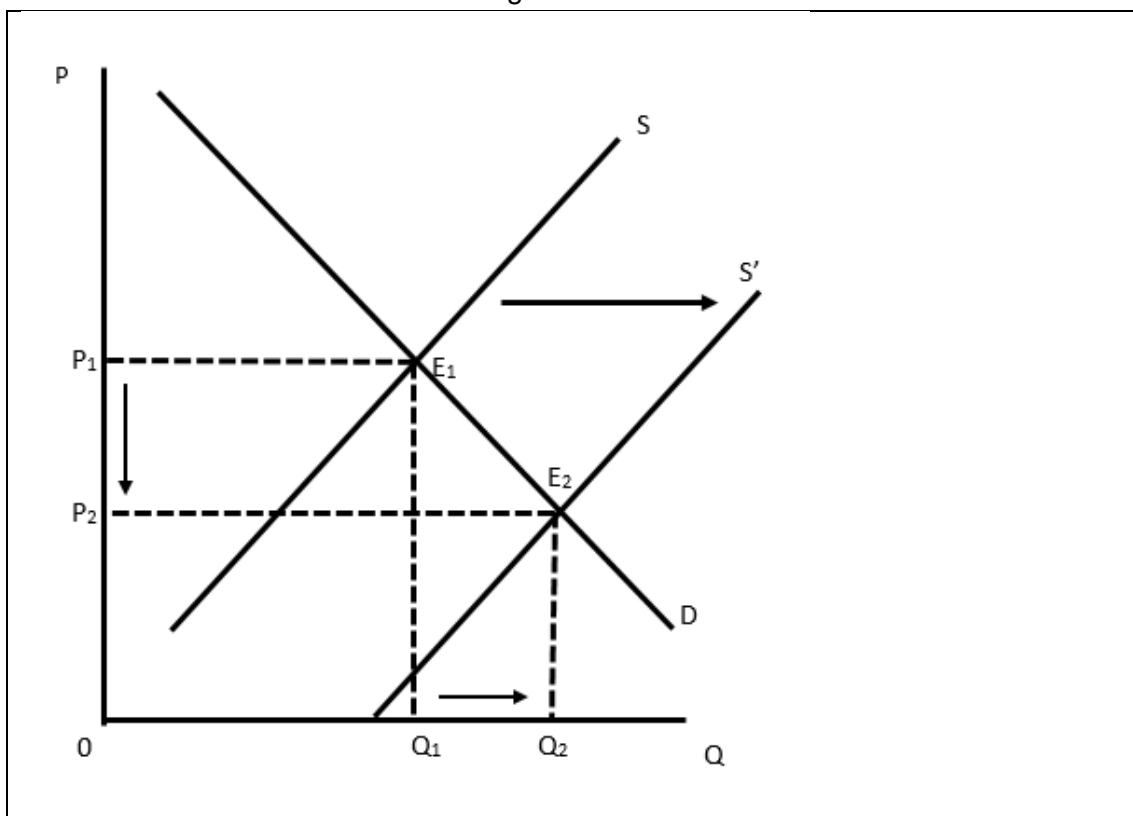
A decrease in demand lowers the equilibrium quantity. A simultaneous increase in supply (which is illustrated by a rightward shift of the supply curve) raises the equilibrium quantity. In this case, the outcome will depend on the relative magnitudes of the changes in demand and supply. In figure 4(a) the increase in supply is relatively larger than the decrease in demand, resulting in an increase in the equilibrium quantity. In figure 4(b) the increase in supply is relatively smaller than the decrease in demand, resulting in a decrease in the equilibrium quantity. This illustrates that the combined effect of a decrease in demand and an increase in supply on equilibrium is indeterminate and will depend on the relative changes in demand and supply.

Figure 4



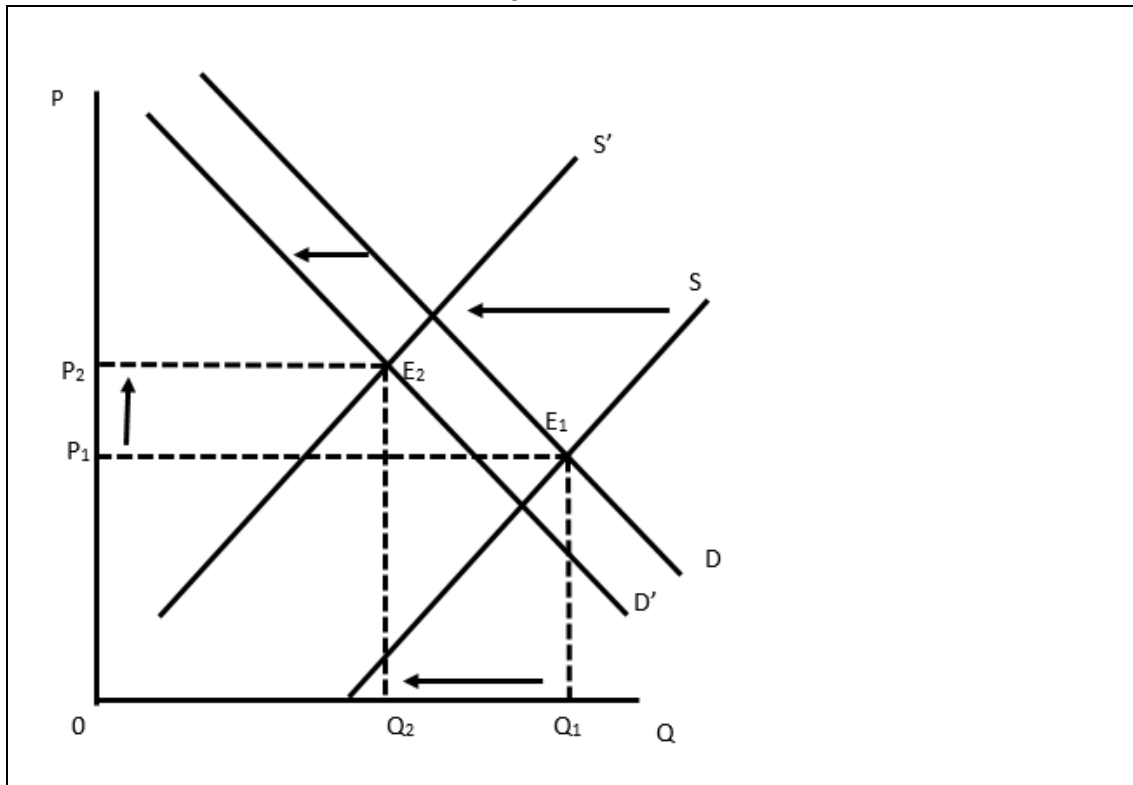
If demand remains constant and supply increases, the equilibrium quantity will definitely increase. Figure 5 illustrates this situation. Option [1] is therefore incorrect:

Figure 5



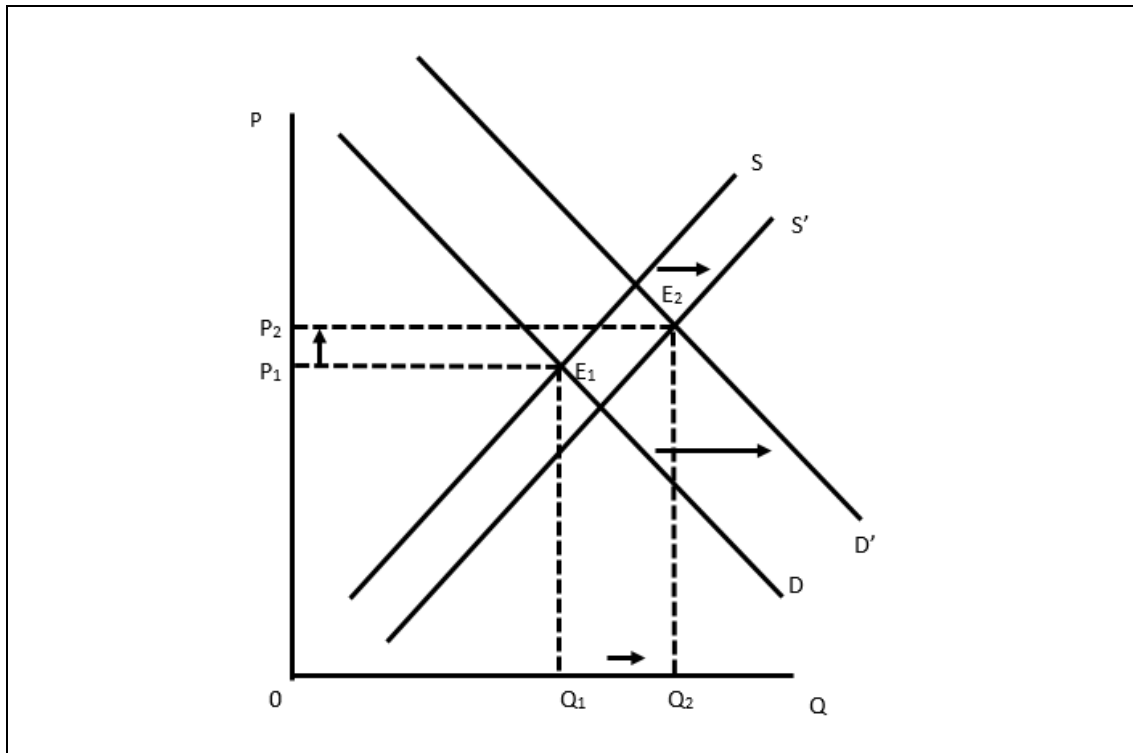
Option [2] is incorrect because a decrease in demand will result in a decrease in the equilibrium quantity. A decrease in supply also leads to a decrease in the equilibrium quantity. Thus the combined effect will be that the equilibrium quantity will definitely decrease. This is illustrated in figure 6.

Figure 6



Option [4] is incorrect because an increase in demand will result in an increase in the equilibrium quantity. An increase in supply will also result in an increase in equilibrium quantity. Therefore the combined effect will be that the equilibrium quantity will definitely increase as illustrated in figure 7.

Figure 7

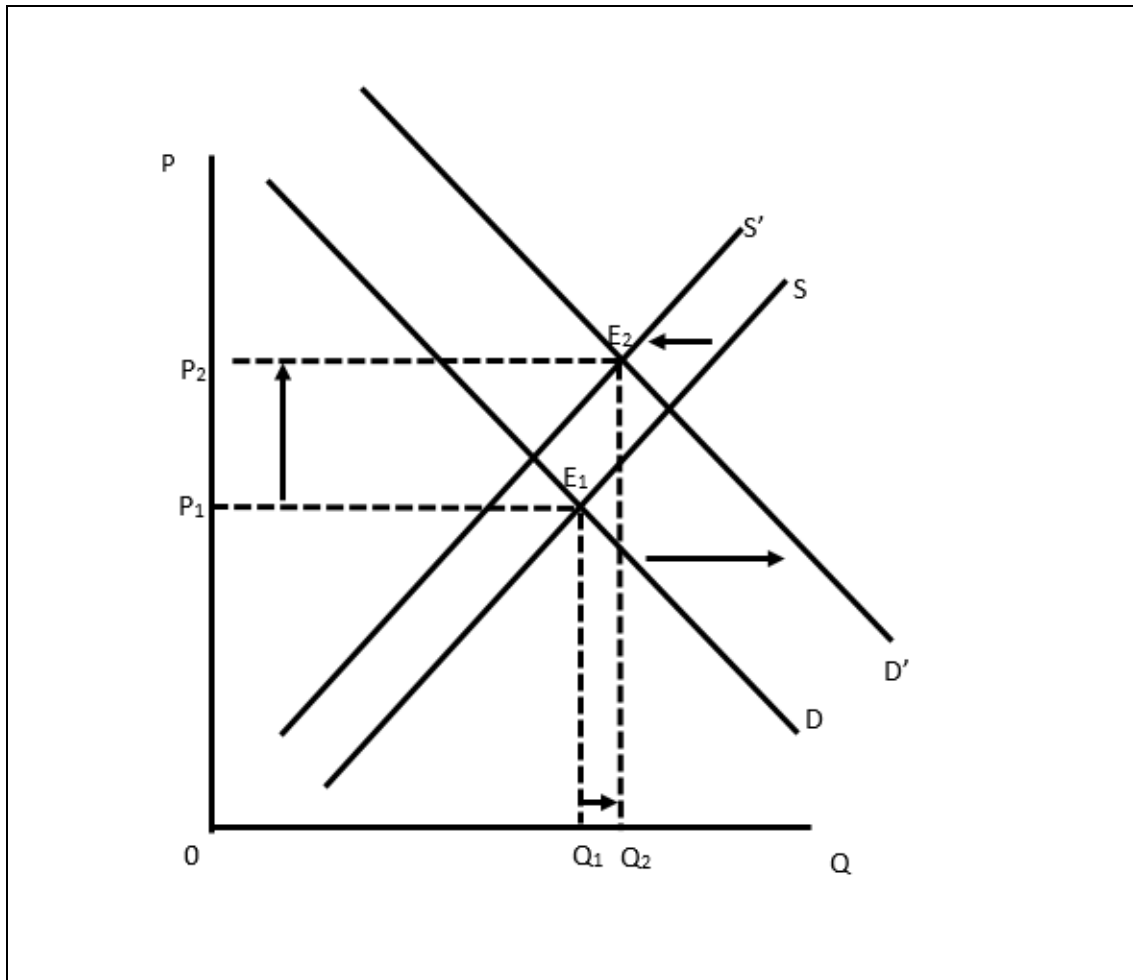


Simultaneous changes in demand and supply are discussed in learning unit 4 of the study guide.

1.24 The correct option is [1].

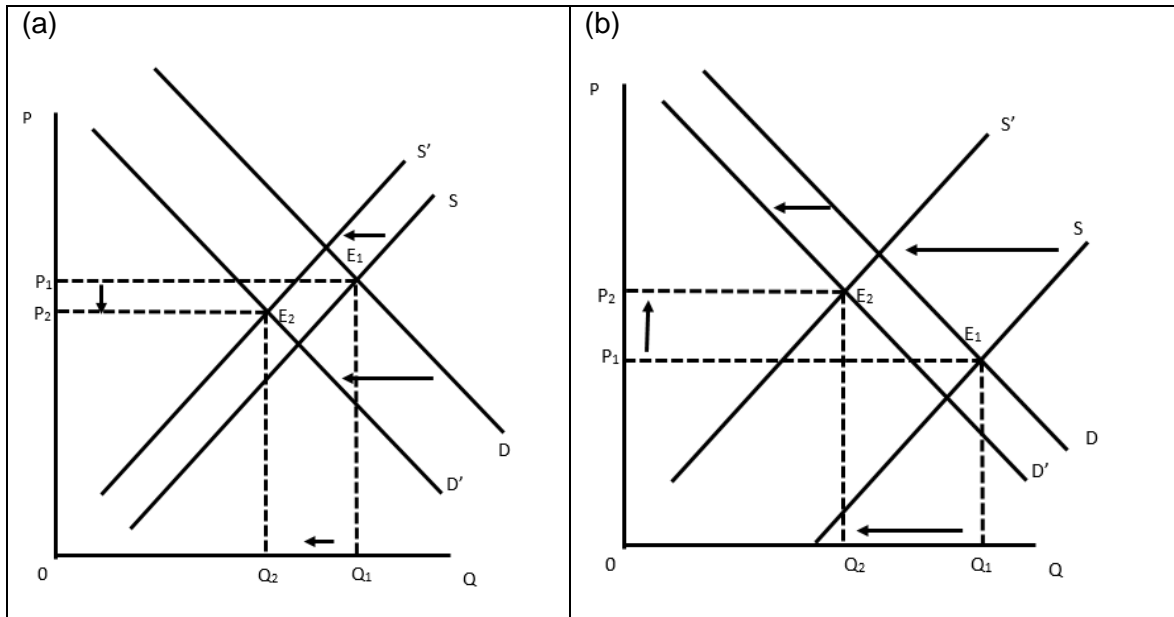
An increase in demand leads to an increase in the equilibrium price (and this is because an increase in demand eventually initiates excess demand, which puts upward pressure on the price). A decrease in supply also leads to an increase in prices. It follows, therefore, that an increase in demand accompanied by a decrease in supply will raise the equilibrium price. This situation is illustrated in figure 8.

Figure 8



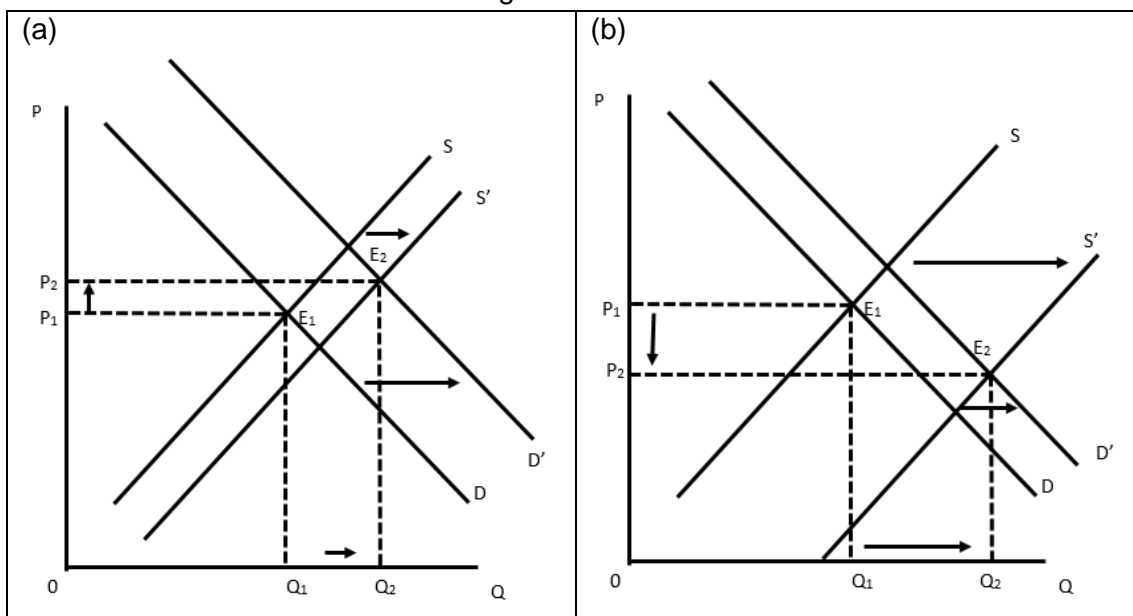
Option [2] is incorrect because a simultaneous decrease in demand and supply leads to a decrease in the quantity demanded, but the direction of the change in the price is uncertain. The change in price will depend on the relative sizes of the changes in demand and supply. In figure 9(a) the decrease in demand is relatively larger than the decrease in supply, resulting in a decrease in the equilibrium price level. In figure 9(b) the decrease in demand is relatively smaller than the decrease in supply, resulting in an increase in the equilibrium price level.

Figure 9



Option [3] is incorrect because a simultaneous increase in both demand and supply leads to an increase in the quantity demanded, but the direction of the change in the price is uncertain. Figure 10 illustrates this. In figure 10(a) the increase in demand is relatively larger than the increase in supply, resulting in an increase in the equilibrium price level. In figure 10(b) the increase in demand is relatively smaller than the increase in supply, resulting in a decrease in the equilibrium price level.

Figure 10



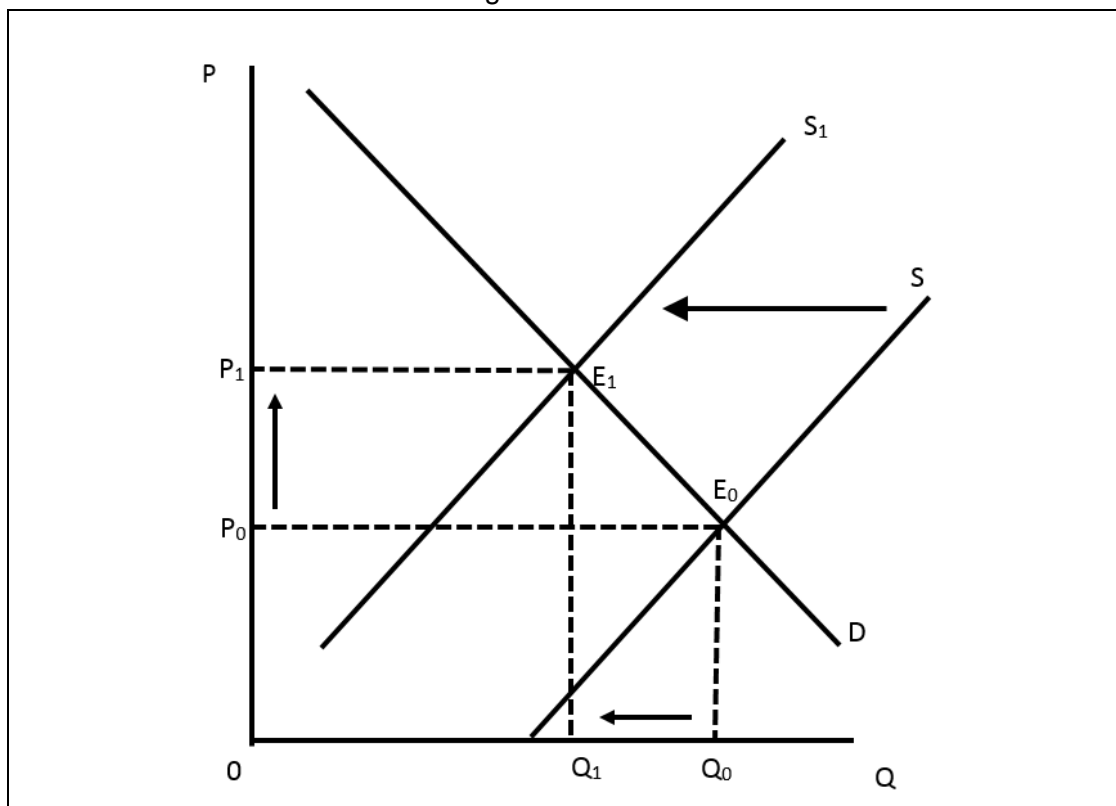
Option [4] is incorrect because a decrease in demand results in a decrease in the price level. An increase in supply also leads to a decrease in the price level. Therefore a combination of a decreasing demand and an increase in supply will always result in a *decrease* in the price level. This is illustrated in figure 4 above.

Simultaneous changes in demand and supply are discussed in learning unit 4 of the study guide.

1.25 The correct option is [1].

Producers are profit motivated and this means that the quantity produced by suppliers is usually influenced by price (among other factors). Thus, if the prize of maize increases relative to the price of wheat, this means that producers will redirect resources and will produce more maize. As fewer resources are available to produce wheat, the supply of wheat will decrease. We can illustrate this with a leftward shift of the supply curve, from S to S_1 in figure 11. As is illustrated in figure 11 the decrease in the supply of wheat results in an increase in the equilibrium price of wheat (from P_0 to P_1 in figure 11).

Figure 11



Refer to section 3.3 and especially table 3.6 for a discussion of the results on a change in the price of a substitute in production on supply.

1.26 The correct answer is [4].

Inferior goods are negatively related to income because an *increase* in income leads to a *decrease* in the quantity demanded of such a product. Refer to section 5.5 for an explanation of inferior goods.

1.27 The correct option is [1].

At equilibrium (denoted by point A), the equilibrium price is R8 and the equilibrium quantity is 200. At the price of R10 (which is higher than the equilibrium price), suppliers will be willing to produce 300 loaves of bread (point B). On the demand side, at the same price of R10, consumers are willing to buy 150 loaves of bread (point C). Thus at a price of R10 the quantity that suppliers are producing exceeds the quantity of loaves of bread that consumers are willing to buy by 150 (300 – 150). This means at a price of R10 there is an excess supply of loaves of bread equal to 150.

1.28 The correct option is option [4].

R9 is higher than the equilibrium price, which is R8. Therefore, there will be excess supply at a price of R9 and not excess demand. Excess demand would exist at a price lower than the equilibrium price, for example at a price of R4.

1.29 The correct option is [4].

At equilibrium, quantity demanded (Q_D) will be equal to quantity supplied (Q_S). As

$Q_D = 60 - 0,3P$ and $Q_S = 30 + 0,2P$ we can say that:

$$60 - 0,3P = 30 + 0,2P$$

$$60 - 30 = 0,2P + 0,3P$$

$$30 = 0,5P$$

$$\frac{30}{0,5} = P$$

$$60 = P$$

Now that we know what the price is, we can replace this price in either of the two equations to calculate the equilibrium quantity. Let us replace it in the demand equation:

$$Q_D = 60 - 0,3P$$

$$\text{Thus: } Q_D = 60 - 0,3 \times 60$$

$$Q_D = 60 - 18$$

$$Q_D = 42$$

1.30 The correct option is [2].

At equilibrium quantity demanded (Q_D) will be equal to quantity supplied (Q_S). As

$Q_D = 4 + 0,3P$ and $Q_S = -30 + 0,5P$ we can say that:

$$4 + 0,3P = -30 + 0,5P$$

$$4 + 30 = 0,5P - 0,3P$$

$$34 = 0,2P$$

$$\frac{34}{0,2} = P$$

$$170 = P$$

Now that we know what the price is, we can replace this price in either of the two equations to calculate the equilibrium quantity. Let us replace it in the demand equation:

$$Q_D = 4 + 0,3P$$

$$Q_D = 4 + 0,3 \times 170$$

$$Q_D = 4 + 51$$

$$Q_D = 55$$