

ICSE Board
Class X Economic Applications
Board Paper – 2018 Solution

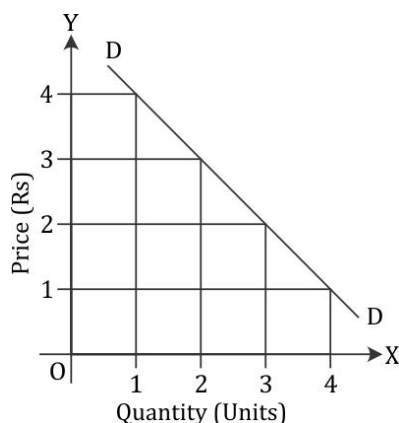
PART I

Answer 1

(a) Cause of low efficiency of labour:

- Climatic differences affect the efficiency of labour in production. The hot and humid climate of majority states of India is a factor which prevents people from doing more work and thus the ability to display high efficiency.
- The ability and willingness of workers to work and learn skills depend on their health, and thus, on the wage rate and the standard of living. Generally, the wages of labour are low and they are poorly fed.

(b) Demand curve



(c) Need for a central bank:

- The monetary system requires management. A paper standard which is widely adopted everywhere in the world has to be directed by a central authority. This can be best done by a central bank.
- All modern economies aim at achieving the twin objectives of full employment and price stability. Hence, a sound monetary policy directed by the central bank is required.

(d) Fixed capital and circulating capital:

- Weaving machines are fixed capital which can be used again for further production. It is also known as durable use producer goods.
- Cotton yarns, dyes and power are circulating capital which are used only once in production. It is also known as single use producer goods.

(e) A tax is said to be progressive when the rate of tax increases with an increase in the taxpayer's income. Under this system, the tax liability increases not only in absolute terms but the proportion of income tax also increases. In India, the income tax rates

are progressive in nature as the tax rate increases from 20 to 30%, where an individual earns more than Rs 8 lakh per year.

Answer 2

- (a) Capital is a passive factor of production because it cannot produce without the help of active services of labour. Also, to produce using machines, labour is required. Capital on its own cannot produce anything until labour provides services on it.
- (b) The central bank acts as the banker to other banks. The central bank is
Custodian of cash reserves: Commercial banks keep deposits (certain proportion of their deposits) at the central bank (known as cash reserve ratio).
Lender of the last resort: When a commercial bank fails to meet its financial requirements from other sources, it approaches the central bank for loans and advances.
- (c) Monopolistic and perfect competition:
- A firm under monopolistic competition has partial control over price, i.e. each firm is neither a price taker nor a price maker, whereas a firm under perfect competition is a price taker, i.e. an individual has no control over price.
 - A firm under monopolistic competition has a downward sloping demand curve as more quantity can be sold only at a low price. So, the demand curve is more elastic, whereas the demand curve for perfectly competitive firm is perfectly elastic as it has to accept the price fixed by the market forces of demand and supply.
- (d) Inflation is a gain for borrowers. Inflation means a decrease in the value or purchasing power of money. If the rate of interest to be paid by the borrower is less than the inflation rate, then the borrower will gain. Because the real value of the money returned by the borrower is less than that of the value of money actually borrowed earlier.
- (e) The government aims at reducing income inequalities through budgetary policy. It aims to influence distribution of income by imposing taxes on the rich and spending more on the welfare of the poor. It will reduce the income of the rich and improve the standard of living of the poor. Thus, reducing income inequalities in the distribution of income.

Answer 3

- (a) In the production of goods, labour (as a factor of production) is employed by the entrepreneur on a contractual basis. Entrepreneurs make payments as wages for labour. The income of entrepreneurs is residual in nature as their profit is generated after making payments out of their income to the other factors of production employed in the production process.
- (b) Current and savings deposits:
- Current deposits are chequable deposits, whereas savings deposits are chequable but subject to restrictions on the number and amount of withdrawals.
 - Current deposits do not carry interest for the amount deposited, whereas savings deposits carry a rate of interest which is relatively lower.

- (c) The practice of shifting cultivation is an extravagant and unscientific form of land use. The effects of shifting cultivation are devastating and far-reaching in degrading the environment and ecology of the region. The previous 15–20 year cycle of shifting cultivation on a particular land has now reduced to 2–3 years. It resulted in large-scale deforestation, soil and nutrient loss and invasion by weeds and other harmful species. The indigenous biodiversity has been affected to a large extent.
- (d) In the perfect competition market, there is no selling costs because of perfect knowledge among buyers and sellers.
- (e) Market supply schedule of a commodity for firm A:

Price in Rs	No. of units supplied by			Total Supply
	Firm A	Firm B	Firm C	
10	25	25	10	60
20	50	30	20	100
30	75	35	30	140
40	100	40	40	180

Answer 4

- (a) Price elasticity of demand: The price elasticity of demand for a good is the percentage change in demand for the good divided by the percentage change in its price. Thus, the percentage method of calculating price elasticity of demand for a good is

$$e_p = \frac{\text{Percentage change in the demand for the good}}{\text{Percentage change in the price of the good}}$$
- (b) Proportional taxation: In proportional tax, the tax rate is constant irrespective of an increase in the income. All taxpayers pay an equal proportion of their income in the form of taxes.
- (c) Capital formation means the creation of capital or increase in the stock of capital in an economy. Manufacturing a machine, building a factory shed, and building roads and bridges are examples of capital formation.
- (d) Labour is the aggregate of all human physical and mental effort used in the creation of goods and services. Labour can move from one place to another or from one use to another use. Generally, the mobility of labour depends on the education and skill of labourers, wage difference between different sectors, social customs etc.
- (e) Inflation means an increasing trend in the aggregate price level in a country. It is important that merely a high level of prices is not called inflation because prices may be stable at that high level. So it means a rising price level.

PART II

Answer 5

(a) Capital is known as the produced means of production. First, it is created by man and is not a gift of nature. Second, it is a means of production and is used as an input in producing other goods. Such type of goods is not directly consumed.

Characteristics of capital as a factor of production:

- Capital is productive. Hence, production can be increased to a larger extent if workers work with capital.
- Use of capital increases the productivity of labour. Hence, there will be an increase in the future earning of workers. This will lead to a higher standard of living.
- Capital is a mobile factor of production which is easily transferable from one place to another and one occupation to another occupation.

(b) Factors affecting the supply of a commodity:

- i. State of technology: Technological progress creates a positive approach in the supply of a particular product. It decreases the cost per unit and increases the productivity of given factor inputs of production. This leads to making the production of a particular good more profitable. So, there is an increase in the supply of a product which causes a rightward shift of the supply curve.
- ii. Price of factors of production: A fall in the price of factors of production will reduce the cost of production which in turn will increase the production and supply due to the rise in profit margin and *vice versa*.
- iii. Goals of the firm: Goals may be profit maximisation or sales maximisation. If firms want to maximise profits, then more quantity will be supplied at a higher price. If firms want to maximise sales, then more quantity will be supplied even at the same price.
- iv. Future price expectations: When sellers expect a price rise in the near future, they will tend to reduce the present supply of their commodities and hoard them to supply more in the future.

Answer 6

- (a) i. Division of labour is possible in the automobile industry and cotton textile industry.
- ii. Demerits of division of labour:
- Lack of responsibility: Division of labour means division of responsibility. If the quality of the product is not up to the mark, then none of them will be held responsible.
 - Increased dependence: When production is divided into several processes and each part is performed by different workers, it may lead to unnecessary dependence among workers.

- Lack of mobility: Under division of labour, a worker is trained only in a particular piece of total work. As a result, a worker cannot easily shift to any other job. Hence, the worker faces difficulty in finding the same job in another factory when he is unemployed.

(b) Elasticity of supply:

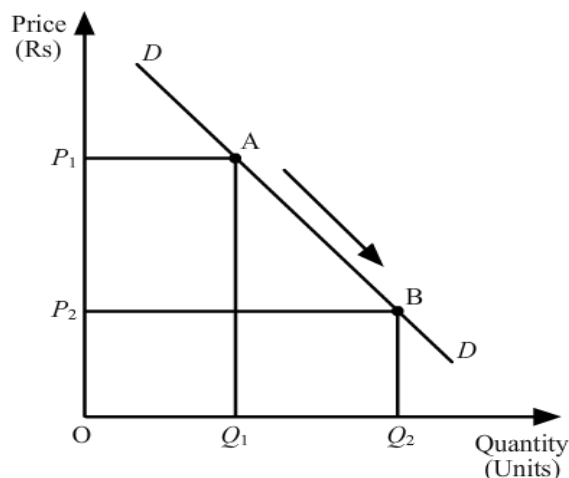
Supply curve S1 is the straight line supply curve which passes through the origin and indicates unit elasticity of supply. When the percentage change in supply is equal to the percentage change in price, the supply curve S2 is relatively elastic as the percentage change in quantity supplied exceeds the percentage change in price.

Supply curve S3 is the vertical line which indicates perfectly inelastic supply. If there is no change in the quantity supplied with changes in the price of the product, then the supply of that commodity becomes completely elastic.

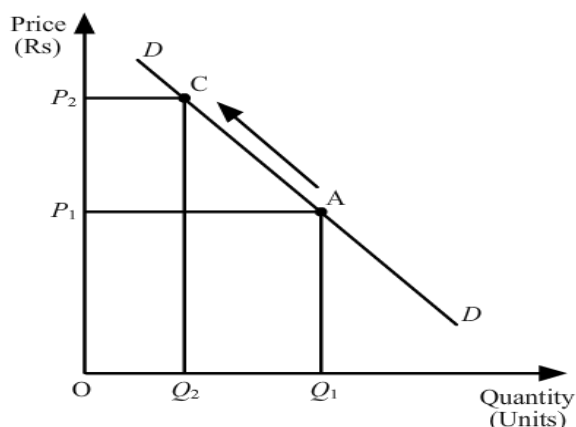
Supply curve S4 represents relatively inelastic or less than unit elastic supply if the percentage change in quantity supplied is less than the percentage change in price.

Contraction and extension of demand

Extension of demand: It refers to a rise in the demand for a commodity because of a fall in its own price and other factors remaining constant. A fall in price is the only factor which leads to extension of demand. Diagrammatically, it is depicted by a downward movement along the same demand curve.

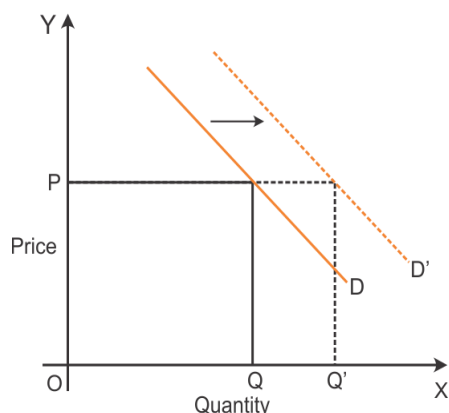


Contraction of demand: It refers to a fall in demand for a commodity because of a rise in its own price, other factors remaining constant. Rise in price is the only factor which leads to contraction of demand. Diagrammatically, it is depicted by an upward movement along the same demand curve.



Answer 7

(a) Increase in demand refers to a rise in the demand of a commodity caused by any factor other than the own price of the commodity. In this case, the demand rises at the same price or the demand remains the same even at a higher price. It leads to a rightward shift in the demand curve.



Situations leading to increase in demand:

- **Increase in the prices of substitute goods:** An increase in the price of substitute goods leads to an increase in the demand for satisfaction for a given commodity. Assume tea and coffee as two substitute goods. D_1 is the demand curve for the demand of tea. When there is an increase in the price of the substitute good coffee, the demand curve for tea shifts to the right. Thus, the consumer shifts from D_1 to D_2 , consuming more of tea even when its price is constant.
- **Increase in the income of consumers:** If the income of consumers rises, then the demand for normal goods increases. There is a positive relationship between income and demand.
- **Increase in the prices of complementary goods:** An increase in the price of complementary goods leads to a decrease in the demand for a given commodity and *vice versa*.

(b) Public sector enterprises play a dominant role in India. Their contributions are strong industrial base, export promotion and import substitution, generation of employment, and reduction in income inequalities. They are owned and controlled by the government. The main aim of the public sector is to maximise social welfare. It stresses more on the production of capital goods. The rapid industrialisation during the first three decades after Independence was mainly because of this sector. It has generated lakhs of new jobs. Central public sector undertakings employed 15.33 lakh people in 2008–09.

- Providing rural infrastructure and extending credit to the poor at a low rate of interest as an effective instrument to remove poverty.
- Development of infrastructure such as transport, irrigation system, power and electricity, and communication is required to promote agricultural and industrial development.
- The state has to intervene in macro-economic management of the economy. The government can intervene in some sections of the population which are not covered by market mechanism.
- Income inequality is not a healthy phenomenon. Revenue policy and public expenditure policy are two measures undertaken by the government to reduce income inequality in an economy. The progressive and proportional system of taxation helps reduce the gap between the rich and the poor. All the public expenditure incurred in projects will benefit the middle class and the poor sections of an economy.

Answer 8

(a) The central bank controls the credit supply of an economy. Quantitative measures of credit control include the bank rate and open market operations. Qualitative measures of credit control include margin requirements and rationing of credit.

- Cash Reserve Ratio (CRR) is the necessary minimum percentage of a bank's total deposits that is to be kept with the central bank. Commercial banks need to maintain with the central bank a certain percentage of their deposits in the form of cash reserves. The central bank can vary CRR between 3% and 15%. During an inflationary condition, CRR is increased to control the commercial bank when providing loans and advances. This will reduce the circulation of money, and hence, inflation will be controlled.
- Statutory Liquidity Ratio (SLR) is the fixed percentage of assets in the form of cash or other liquid assets which a bank must maintain with the central bank. The central bank can vary SLR between 20% and 40%. Change in SLR will affect the freedom of banks to sell government securities or borrow against them from the central bank. An increase in SLR will reduce the ability of the bank to give loans. This will reduce the circulation of money, and hence, inflation will be controlled.

(b) A monopolist charges different prices in different markets because of full control over the supply and price of the product. He provides services to the rich at higher prices and the poor at lower prices (e.g. railways in India).

Features of monopoly:

- **Single seller:** Single seller selling the product in the market. As a result, the monopoly firm and industry is one and the same. A monopolist has full control over supply and price of the product.
- **No close substitutes:** The product produced by a monopolist has no close substitutes. So, there is no fear of competition from new and existing products.
- **Price discrimination:** A monopolist charges different price from different buyers of the same product to maximise profits. This is called price discrimination.

Answer 9

(a) Privatisation refers to any process which discourages the participation of the state public sector in the economic activities of an economy. Its main objective is to make the best possible use of privately owned resources for collective welfare of the people.

- Greater flexibility in decision making: Public sector units took a long time to complete projects. Private enterprises have greater flexibility to take decisions and implement in time.
- Better utilisation of resources: As private enterprises are motivated by profits, they take right economic decisions. They avoid wastage of resources. Hence, the economy is expected to show greater efficiency and productivity.
- Greater employment opportunities: Private enterprises can be an important source of employment in the economy. Private units set up in India have generated more new jobs.

(b) Differences between the central bank and a commercial bank:

Central Bank	Commercial Bank
<ul style="list-style-type: none"> • The central bank is the apex bank and is also known as the bank of all the banks. 	<ul style="list-style-type: none"> • A commercial bank functions under the control of the central bank.
<ul style="list-style-type: none"> • It focuses on social welfare. 	<ul style="list-style-type: none"> • It focuses on profit maximisation.
<ul style="list-style-type: none"> • It does not accept deposits. 	<ul style="list-style-type: none"> • It accepts deposits from the public and provides loans to individuals and households.
<ul style="list-style-type: none"> • It issues currency. 	<ul style="list-style-type: none"> • It has no authority to issue currency.
<ul style="list-style-type: none"> • It is an advisor to the government on monetary issues. 	<ul style="list-style-type: none"> • It is not an advisor.

Answer 10

- i. Indirect taxes: Indirect taxes are imposed on an individual but are paid by another person either partly or wholly. Hence, the impact and incidence of taxes are on different people. Customs and excise duties are examples of indirect taxes. Here, the producer bears the impact and the incidence of tax on the consumer.
- ii. Differences between direct and indirect tax:

Direct tax	Indirect tax
<ul style="list-style-type: none"> The tax burden cannot be shifted to any other individual or firm by the taxpayer. 	<ul style="list-style-type: none"> The tax burden can be shifted by the taxpayer.
<ul style="list-style-type: none"> It is progressive because the tax rate increases with an increase in the income slabs. 	<ul style="list-style-type: none"> It is regressive because the common people bear this tax burden.
<ul style="list-style-type: none"> The impact and incidence of tax fall on the same person. 	<ul style="list-style-type: none"> The producer bears the impact and incidence of tax on the consumer.

- iii. Classification:
 - Indirect taxes: Custom duty, entertainment tax
 - Direct tax: Income tax, professional tax
- iv. Indirect taxes are important in developing countries because
 - Broad coverage: In the case of tax on a commodity, all the buyers of the commodity have to pay an indirect tax irrespective of their income level, whether they belong to high income groups or low income groups. By widening the tax net, the government can yield more revenue for public expenditure.
 - Convenient: Indirect taxes are paid in small portions at regular intervals. It is not a burden to the taxpayer as it is included in the price of the commodity.
- v. In regressive tax, the average tax rate decreases with an increase in income of an individual. The absolute amount of tax collection increases with an increase in the income. While progressive tax is the tax in which the rate increases with an increase in the income. There is a different rate of tax at every income slab. Indirect tax is regressive in nature because the common people bear this tax burden. Indirect taxes can be both regressive and progressive depending on whether households are ranked according to their disposable income or their expenditure.