

ICSE Board
Class X Economics Applications
Board Paper – 2014

Time: 2 hrs

Total Marks: 100

General Instructions:

1. Answers to this paper must be written on the paper provided separately.
 2. You will **not** be allowed to write during the first **15** minutes.
This time is to be spent in reading the question paper.
 3. The time given at the head of the paper is the time allotted for writing the answers.
 4. Attempt **all** questions from **Part I** and **any four** questions from **Part II**.
 5. The intended marks of questions or parts of questions are given in brackets [].
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PART I (40 Marks)

Attempt all questions from this part.

Question 1

State whether the following statements are true or false. Give reasons.

- a) The price elasticity of demand for commodities having close substitutes is relatively high. [2]
- b) Rate of taxation depends upon the income groups in a progressive tax structure. [2]
- c) The price level in a perfectly competitive market is determined by an individual seller. [2]
- d) Efficiency of labour is influenced by working conditions. [2]
- e) Supply and price are inversely proportional. [2]

Question 2

- a) Draw and briefly explain a perfectly inelastic supply curve. [2]
- b) How does the practice of shifting cultivation affect the environment? [2]
- c) In which form of market do producers and consumers have perfect knowledge about the market conditions? [2]
- d) State two measures taken by the Government to reduce income inequality in an economy. [2]
- e) Mention two features of monopoly. [2]

Question 3

- a) How does the central bank act as a 'lender of the last resort'? [2]
- b) The quantity of a commodity supplied increases by 25% when its price rises by 10%. Calculate price elasticity of supply. [2]
- c) State an adverse impact of urbanisation on the ecosystem. [2]
- d) An indirect tax is not always equitable. Give two reasons to support your answer. [2]
- e) State two characteristics of capital as a factor of production. [2]

Question 4

- a) Suggest two measures to improve the efficiency of labour in India. [2]
- b) What is meant by product differentiation? [2]
- c) State the Law of Supply. Explain it with the help of a diagram. [2]
- d) How does money act as a standard of deferred payment? [2]
- e) State an important difference between demand deposits and time deposits. [2]

PART II (60 Marks)

*Attempt **any four** questions from this part.*

Question 5

- a) Define elasticity of supply. Explain any four of its determinants. [7]
- b) Define a tax. Explain the following with examples: [8]
 - i. Regressive tax
 - ii. Proportional tax
 - iii. Degressive tax

Question 6

- a) What is meant by industrialisation? Explain four impacts of industrialisation on the environment. [7]
- b) Define joint demand. With the help of diagrams explain the difference between individual demand and market demand. [8]

Question 7

- a) State one difference between an entrepreneur and other factors of production. Explain any four qualities in an individual to be a successful entrepreneur. [7]
- b) Define a commercial bank. Explain three ways by which commercial banks advance loans to the public. [8]

Question 8

- a) Define labour as a factor of production. Explain in brief three characteristics of labour. [7]
- b) With the help of an example explain the meaning of price discrimination. To which market is it relevant? Explain any two similarities between a perfect market and a monopolistically competitive market. [8]

Question 9

- a) Define money. How does money perform its role as a
 - i. Medium of exchange
 - ii. Store of value[7]
- b) What are public sector undertakings? Explain four reasons for the privatisation of public sector undertakings. [8]

Question 10

Read the extract given below and answer the questions that follow:

TNN, 15th August 2013

Rising vegetable prices and the impact of a weak rupee pushed inflation to a five month high of 5.29% in July 2013. Posing yet another challenge for Asia's third largest economy battling to defend the rupee and boost growth.

Official data released on Wednesday showed inflation, as measured by the Wholesale Price Index, jumped to 5.79% in July from previous month's 4.86%. Easing Wholesale Price Inflation had fuelled expectation of a moderation in tight monetary policy, but the slide of the rupee against the dollar has dashed those hopes for now.

- i. What is meant by running inflation? [2]
- ii. Mention two fiscal measures to control inflation. [1]
- iii. Briefly explain the effect of a high level of inflation on the following:
 1. Fixed income groups [2]
 2. Producers [2]
 3. Creditors and debtors [2]
- iv. Explain three monetary policies of the Reserve Bank of India to control credit. [6]

Solution

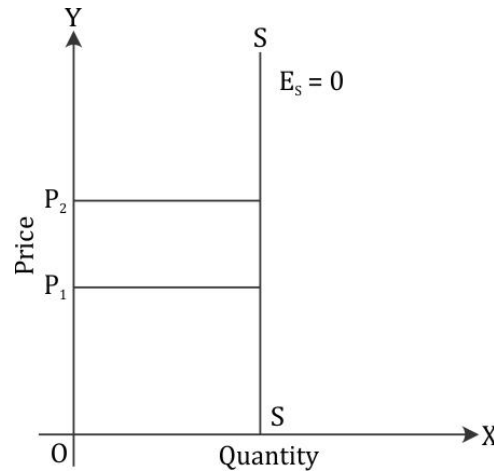
PART I

Answer 1

- a) True. The price of the commodity falls in relation to its substitute. Consumers can easily switch from one good to another even if there is only a small change in price and so its demand will increase.
- b) True. The rate of taxation increases with increase in income. It helps in reducing the income inequality among different sections of the people in a society. Since the rich pay a higher average tax rate than the poor, the gap between the rich and the poor is narrowed down.
- c) False. A large number of buyers and sellers exist in a competitive market. The demand of an individual buyer relative to the total market demand is very small. Similarly, the supply of an individual seller is very small relative to total market supply. Thus, no individual seller or buyer can influence the market price by changing their demand or supply condition. Sellers sell the product only at the market demand price.
- d) True. The poor and unhealthy working conditions in most of the Indian factories, particularly in the unorganised sector, aggravate the problem of inefficiency of workers. More hygienic and congenial conditions would help in achieving higher levels of efficiency.
- e) False. There is a direct relationship between the price of a commodity and its quantity supplied. If the price of the product becomes higher and is more than the marginal cost of production, then the firm can earn excess profits by selling its product at a higher price. Therefore, the supply of that commodity may also rise.

Answer 2

- a) Supply is said to be perfectly inelastic when supply does not respond to change in the price of the commodity. Supply is constant even at a zero price. $E_s = 0$.



- b) 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.
- c) In a perfectly competitive market, all the buyers and sellers have perfect knowledge about the market condition. They have complete knowledge about the price and quality of the product, which has one price in the market.
- d) 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 to reduce the gap between rich and poor. All the public expenditure incurred in the projects will benefit the middle classes and poor sections of an economy.
- e) Two features of monopoly are as follows:
- One seller and a large number of buyers of the product
 - Restrictions on the entry of new firms

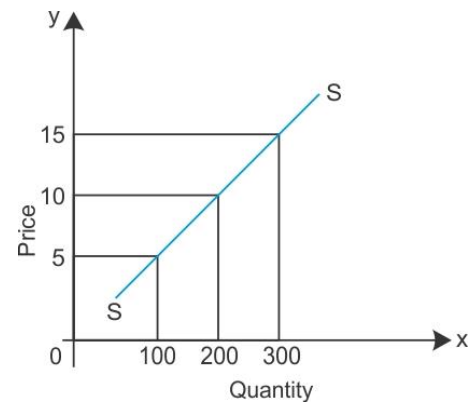
Answer 3

- a) When a commercial bank fails to get financial accommodation from any other source, it approaches the central bank as a last resort. The central bank advances loan to such a bank against approved securities. Thus, the central bank acts as a lender of the last resort.
- b) Price elasticity of supply:
 $E_s = \text{Percentage change in quantity supplied} / \text{Percentage change in price}$
 $= 25\% / 10\%$
 $= 2.5$
- c) Adverse impact of urbanisation on the ecosystem:
Temperature: Temperature increases severely due to factors such as paving over formerly vegetated land, increasing the number of residences and giant apartments and industries.
Air pollution: There is enormous growth of factories and automobiles due to urbanisation. Harmful emissions of gases and smoke from factories and vehicles cause air pollution. It contributes to allergies and respiratory problems, thereby becoming a huge health hazard.
Water issues: The water cycle changes as cities have more precipitation than surrounding areas. Dumping of sewage can lead to outbreaks of epidemics.
- d) An indirect tax is not always equitable:
- i. Indirect taxation is inequitable because each individual pays the same rate on their purchases; the poor pay a larger proportion of their incomes.
 - ii. Indirect taxes are levied on the commodities which only the rich people consume and by limited people. It brings in very less tax revenue for the Government. Therefore, the Government has to impose taxes on a wide range of commodities.
- e) Characteristics of capital as a factor of production:
- i. Capital is productive. Hence, production can be increased to a larger extent if workers work with capital.
 - ii. 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.

Answer 4

- a) Two measures to improve the efficiency of labour in India are as follows:
- Eradication of illiteracy is perhaps the first priority to improve the efficiency of labour.
 - Adequate provisions for imparting training to the workers are necessary to improve the efficiency of labour.
- b) Product differentiation is a situation when different producers under monopolistic competition try to differentiate their product in terms of its shape, size, packaging and trademark. It is done in order to attract buyers of rival firms in the market.
- c) The law of supply states that other things being equal, the quantity of a good supplied increases with an increase in price level and decreases with a decrease in price level of the good. The supply schedule and supply curve given below show the positive relationship between price and quantity supplied.

Price (in Rs)	Quantity Supplied
5	100
10	200
15	300



- d) Deferred payments refer to those payments which are made in the future. Money has made deferred payments easier. When money is borrowed, the principal and interest amounts have to be returned to the lender. However, these transactions are not possible in terms of goods and services. Money performs this function more effectively.
- e) Demand deposits and time deposits:
- Demand deposits can be withdrawn at any time, whereas the time deposits can be withdrawn only after the expiry of a specific period.
 - There is no interest rate on demand deposits, whereas the time deposits carry a higher interest rate.
 - Demand deposits are chequable and can be withdrawn through cheques, whereas time deposits are not chequable.

PART II

Answer 5

- a) Elasticity of supply is a measure of the degree of responsiveness of quantity supplied to changes in the product's own price.

Factors determining elasticity of supply are as follows:

- i. Chances of shifting from production: The size or degree of response depends on how easily producers can shift the production of another product to the one whose price has increased. When the producers can easily shift from one production to another, it means the supply would be more price elastic.
 - ii. Length of time: Producers cannot shift the production immediately due to a change in price of other products within the short duration. But it may be possible to do so over a period of time. Hence, supply tends to be relatively inelastic in the short run and relatively elastic in the long run.
 - iii. Behaviour cost of production: Elasticity of supply is highly influenced by how the cost of production responds to output changes. If an increase in output by the firms in an industry causes only a slight increase in their cost per unit or leads to a decrease in cost per unit, supply will be fairly elastic. Otherwise, when an increase in supply leads to a large increase in the cost of production, supply would be relatively inelastic.
 - iv. Risk-taking: The elasticity of supply is determined based on the willingness of entrepreneurs to take risk. Supply is more elastic when entrepreneurs are willing to take risk and inelastic when they hesitate to take risk.
- b) A tax is a compulsory payment imposed on persons or companies by the Government to meet the expenditure incurred on providing common benefits to the people.

- i. Regressive tax:

In regressive tax, the average tax rate decreases with an increase in income of an individual. The absolute amount of tax collection increases with the increase in income. Example:

Income per month	Rs 2000	Rs 4000
Tax rate	10%	7.5%
Tax collection	Rs 200	Rs 300

- ii. Proportional tax:

In proportional tax, the tax rate is constant irrespective of the increase in income. All tax payers pay an equal proportion of income in the form of taxes.

Income per month	Rs 2000	Rs 4000
Tax rate	10%	10%
Tax collection	Rs 200	Rs 400

iii. Degressive tax:

Degressive tax means the rate of tax which increases up to a certain limit and later the uniform rate is charged. This system is a mixture of proportional tax and progressive tax. The absolute amount of tax collection falls with the increase in income.

Income per month	Rs 2000	Rs 4000
Tax rate	10%	2.5%
Tax collection	Rs 200	Rs 100

Answer 6

a) Industrialisation means a process in which a change of series of systematic production takes place. It implies creation and growth of manufacturing units.

The process of industrialisation was started during the second five-year plan in India. Due to the progress of industries such as iron and steel, chemical, coal, cement, thermal power etc., the renewable and non-renewable resources are slowly depleting. Impacts of industrialisation on the environment are

i. Global warming

The most serious consequence of industrial pollution is global warming. The emission of a variety of greenhouse gases such as CO₂, methane etc. has raised the temperature of the Earth, leading to global warming. Global warming causes various health hazards and diseases such as malaria, dengue, cholera etc. It also results in the melting of glaciers and snow-capped mountains, causing an increase in the water levels in seas and rivers, leading to the chances of flood.

ii. Air pollution

Air pollution has also increased enormously with the increase in the number of industries and factories. Carbon dioxide, sulphur and nitrogen are the gases emitted from various industries. These gases lead to environment and health hazards such as acid rain and skin disorders in individuals.

iii. Soil pollution

Due to various natural and artificial reasons, the soil loses its structure and fertility. Dumping of industrial wastes is the main factor which contributes to soil pollution. Industrial wastes contain chemicals which get accumulated on the top layer of the soil, leading to loss of fertility of the soil. There will be a change in the ecological balance of the environment because of fewer plants.

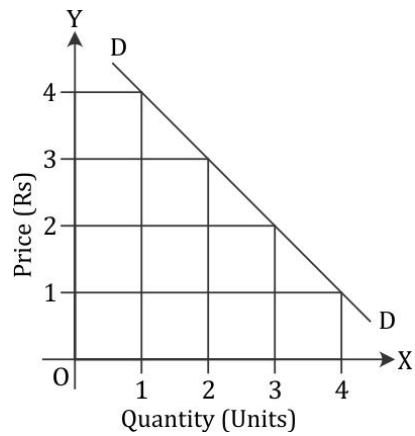
iv. Water pollution

Water pollution has also increased enormously with the increase in the number of industries and factories. Dumping of industrial waste products into water resources and improper treatment of industrial wastes result in water pollution.

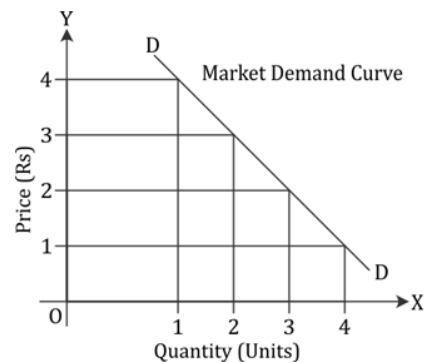
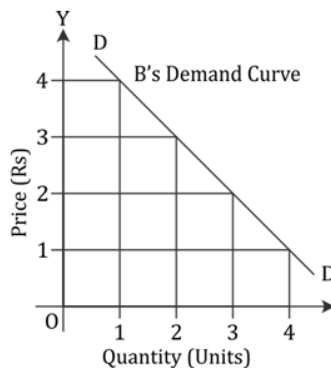
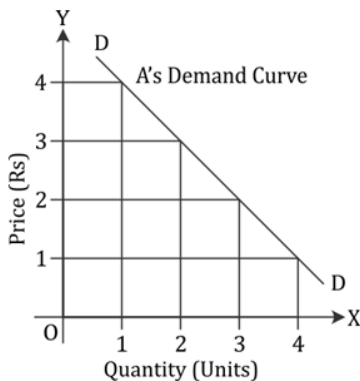
b) Joint demand

When the demand for different complementary goods is created at one time, it is termed joint demand. For example, the demand for computer hardware and software is created jointly.

The individual demand curve is a curve showing different quantities of the commodity which one particular buyer is willing to buy at different possible prices of the commodity at a point of time. In the diagram given below, the quantity of commodity is given on the X-axis and the price on the Y-axis. DD is the demand curve representing the individual demand schedule. The demand curve slopes downwards from left to right, indicating an inverse relationship between the price and the quantity demanded.



The market demand curve is the horizontal summation of the individual demand curves. It indicates various quantities of the commodity which all consumers in the market are willing to buy at different possible prices of the commodity at a point of time. The diagram below shows that the market demand curve represents the market demand schedule assuming two consumers A and B in the market. The market demand curve also slopes downward indicating an inverse relationship between the price and quantity demanded.



Answer 7

a) An entrepreneur and other factors of production

In the production of goods, all other factors of production are employed by the entrepreneur. Land, labour and capital are the factors engaged by the entrepreneur on a contractual basis. Entrepreneurs make payments as rent for land, wages for labour and interest to capital. 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.

Four qualities of an individual to be a successful entrepreneur:

i. Organisational ability

A good organiser will always be a successful entrepreneur. There are certain people who are good at work but are poor organisers. In that case, they will not be a good entrepreneur.

ii. Attitude of risk taking

An entrepreneur must carry the risk of the uncertainty of business as it is one of the main functions of an entrepreneur. Therefore, a person who has strong aversion to take risks will not be a good entrepreneur.

iii. Ability to make quick decisions

An entrepreneur must make a proper analysis of risks and decision making must be prudent because reckless risk-taking may bring disaster to a business firm. Therefore, the ability to make quick decisions is another good quality of an entrepreneur.

iv. Negotiating skills

An ideal entrepreneur must have good negotiating skills because successful running of a business firm requires negotiations on various issues with various parties such as clients, trade unions, the Government etc.

b) Commercial bank

A commercial bank is defined as a financial institution which provides services such as accepting deposits, giving business loans, mortgage lending and basic investment products such as savings account and certificates of deposit.

Loans advanced by a commercial bank are

i. Ordinary loans

Commercial banks advance ordinary loans for purchasing consumer durables, building houses etc.

ii. Cash credit

Commercial banks allow the borrower to withdraw up to a certain amount on a given security which constitutes stocks of goods and bills receivable from others. Interest will be paid by the borrower only on the actual amount withdrawn from the bank.

iii. Overdraft facilities

Under the overdraft facilities, an account holder can withdraw money in excess of the amount deposited with the bank. But the borrower will pay interest on excess amount withdrawn from the bank.

Answer 8

- a) Labour can be defined as the aggregate of all human physical and mental effort used in the creation of goods and services.

Three characteristics of labour are as follows:

- i. Labour cannot be accumulated: Labour cannot be accumulated by a labourer, i.e. a capitalist can go on accumulating capital or a landowner can go on increasing the amount of land owned by him. It is a crucial difference between labour and other factors of production.
 - ii. Labour is mobile: 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.
 - iii. Labour has alternative uses: It is possible for any labour to engage itself in different fields of work. For example, an unskilled worker can work as a coolie, hawker, peddler etc.
- b) Price discrimination

Price discrimination is a situation when a monopolist charges a different price from different buyers of the same commodity in order to maximise profit. For example, a monopoly surgeon may charge a low fee from poor patients and a high fee from rich patients.

Price discrimination is a situation prevalent in a monopoly market.

Similarities between a perfect market and a monopolistically competitive market

- i. Both perfect market and monopolistically competitive market have a large number of sellers and buyers.
- ii. Level of profit in the long run in both the markets are $AR = AC$ (implying normal profit), where AR = average revenue and AC = average cost.

Answer 9

- a) Money is defined as a thing which is commonly accepted as a medium of exchange. Money is an instrument which serves as a medium of exchange, a measure of value, a store of value and a standard for deferred payments.

i. Medium of exchange

The introduction of money resulted in the end of a barter system where goods were exchanged according to needs. Now, money acts as an intermediate in the exchanging process, and thus, it is known as a medium of exchange. Anyone can exchange goods for money and buy commodities which are required by them.

For example, a fruit seller wants to sell his fruits in order to buy wheat. In the absence of money, he will have to look for some person who wants to sell wheat and buy fruits. This is not easy and always possible. However, with the availability of money as a medium of exchange, the fruit seller just has to find a buyer for his fruits. After fruits are exchanged for money, he can purchase wheat from the market.

ii. Store of value

People keep their wealth in the form of money because money is the most liquid form of wealth. Savings in the form of money is maintained for purchasing commodities in the future. In this case, the value of commodities is being stored. Hence, money acts as a store of value.

- b) A public sector undertaking (PSU) is owned and controlled by the Government. The main aim of the sector is to maximise social welfare. It gives more stress to the production of capital goods. Nearly 26% of the national income comes from the public sector and 20% of the total working population is engaged in this sector. This sector enjoys monopoly form of market.

Reasons for the privatisation of PSUs

i. Lack of management

Effective managerial policies can change the total outcome of a nation. But India is lagging in this context. Most of the Government officers are inefficient to execute the work. Lack of efficient management has thrown most of the PSUs in darkness.

ii. High construction cost

Most of the Government projects were unable to complete within the stipulated time, so the estimated expenditures had increased over the period. An excessive delay in the completion of work obstructs the work culture and running cost of construction cross the average limit.

iii. Improper utilisation of capacity

Most of the resources were unused or mis-used which lead to heavy loss with no profit situation in PSUs.

iv. Labour problem

Labour indiscipline and lack of completing the work on time are the main reasons behind a low level of profit. Frequent lock outs, strikes, labour unrest and overstaffing decline their efficient management.

Answer 10

i. Running inflation

Running inflation is inflation where the general price level increases a bit faster and the rate of growth of price level is about 10 percent per annum. The inflation rate becomes double digit. Here, the price movements are compared with the trotting of a horse.

ii. Two fiscal measures to control inflation are taxation and government expenditure.

iii.

1. Fixed income groups

The hardest hit are people who receive a fixed income. People who live on past savings, fixed interest or rent, pensions, salaries etc. suffer during periods of rising price as their incomes remain fixed. The middle class who by their hard work take care of their children's education, livelihood in times of sickness and old age, and accommodate day-to-day expenses find it difficult to survive in times of serious inflation.

2. Producers

When a price increases, producers gain on account of windfall profits because prices rise at a faster rate than the cost of production. Furthermore, there is a time-lag between the price rise and the increase in cost. Moreover, producers gain because the prices of their stock go up due to inflation. They also stand to gain being generally borrowers of money for business purposes.

3. Creditors and debtors

Debtors borrow from creditors to repay with interest at some future date. Changes in price level affect them differently at different time periods. During inflation, when the prices rise and the real value of money goes down, the debtors pay back less in real terms than what they had borrowed, and thus, to that extent, they are gainers. On the other hand, the creditors get less in terms of goods and services than what they had lent and lose to that extent.

iv. Three monetary policies of the Reserve Bank of India to control credit:

1. Bank rate policy

Bank rate policy is used as the main instrument of monetary control during the period of inflation. When the central bank raises the bank rate, it is said to have adopted a dear money policy. The increase in bank rate increases the cost of borrowing which reduces commercial banks borrowing from the central bank. Consequently, the flow of money from commercial banks to the public gets reduced. Therefore, inflation is controlled to the extent it is caused by the bank credit.

2. Cash reserve ratio

When controlling inflation, the central bank raises the cash reserve ratio (CRR) which reduces the lending capacity of commercial banks. Consequently, the flow of money from commercial banks to the public decreases. In the process, it halts the rise in prices to the extent it is caused by bank credits to the public.

3. Open market operations

Open market operations refer to the sale and purchase of government securities and bonds by the central bank. When controlling inflation, the central bank sells Government securities to the public through banks. This results in the transfer of a part of bank deposits to the central bank account and reduces credit creation capacity of commercial banks.