ISC Board EXAMINATION 2023
ECONOMICS
Solved Paper
Class-12th

Maximum Marks: 80

Time allowed: Three hours

*Candidates are **allowed additional 15 minutes** for **only** reading the paper.*

*They must **NOT** start writing during this time.*

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*Answer all questions in **Section A, Section B** and **Section C**.*

***Section A** consists of **objective / very short answer** questions.*

***Section B** consists of **short answer** questions.*

***Section C** consists of **long answer** questions.*

The intended marks for questions or parts of questions are given in brackets [].

SECTION A — 16 MARKS

Question 1

(i) The aggregate utility obtained from the consumption of a specific unit of a commodity is called: **[1]**

(a) Total utility **(b)** Total utility

(c) Maximum utility **(d)** Additional utility

(ii) If the price of a commodity and total expenditure on that commodity change in the same direction, the price elasticity of demand will be: **[1]**

(a) greater than one **(b)** less than one

(c) equal to zero **(d)** equal to infinity

(iii) Which one of the following is NOT a *ceteris paribus* assumption of the Law of Supply? **[1]**

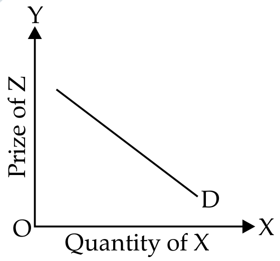
(a) Indirect taxes and subsidies on the firm's products remain constant.

(b) Technology used by the firm in production remains constant.

(c) Prices of the factors of production paid by the firm remain constant.

(d) Price of the commodity produced by the firm remains constant.

(iv) The figure given below shows the relation between the quantity demanded for the goods X and the price of the goods Z. What type of goods are X and Z? **[1]**



(a) Unrelated goods **(b)** Substitute goods

(c) Complementary goods **(d)** Giffen goods

(v) Which one of the following will cause a rise in the equilibrium price of rice when the demand for rice remains the same? **[1]**

(a) Government subsidy to rice farmers **(b)** Successful advertising campaign for rice

(c) Improved rice farming methods **(d)** Poor weather conditions

(vi) When the Marginal Product turns negative, Total Product will: **[1]**

(a) fall **(b)** rise

(c) remain constant **(d)** be zero

(vii) Induced investment expenditure refers to: **[1]**

(a) the investment made by a firm

(b) the expenditure, made by a firm, that remains constant

(c) the investment made in the economy that remains unaltered
(d) total investment expenditure which changes with change in national income

(viii) With reference to money, which one of the following statements is correct? [1]
(a) All paper currency is inconvertible money
(b) Cheque is also a fiat money
(c) Money cannot transfer value from one person to another
(d) $M_2 = C + DD + OD$

(ix) Why is the AVC curve U-shaped? [1]

(x) Mention any one difference between impact of tax and incidence of tax. [1]

(xi) State whether the following is True or False. [1]
Rate of interest on savings account is more than that on recurring account.

(xii) Complete the following table: [1]

INCOME (Y)	SAVING (S)	APC
0	(–)12	
20	6	

(xiii) What is meant by sinking fund? [1]

(xiv) Give the meaning of deficient demand. [1]

(xv) Why is effective demand also known as expost demand? [1]

(xvi) What is meant by accounting cost? [1]

SECTION B — 32 MARKS

Question 2

(i) The price of a mobile handset has risen in the market. But the dealers have not been able to increase the supply proportionately.
What will be the price elasticity of supply for the mobile handset? Draw the supply curve to indicate the type of elasticity. [2]

(ii) The price of a goods decreases from 100 to 80 per unit. If the price elasticity of demand for the goods is 2 and the original quantity demanded is 30 units, calculate the new quantity demanded. [2]

Question 3

(i) Calculate Total variable cost and Marginal cost from the data given below. [2]

Output (units)	0	1	2	3
Total cost	40	60	78	97

(ii) Give any two differences between returns to a factor and returns to scale. [2]

Question 4

Explain Price Ceiling with the help of a diagram. [4]

Question 5

(i) Under Perfect Competition, a firm will enjoy normal profit in the long run even if it enjoys supernormal profit in the short run. Explain. [2]

(ii) What is meant by break-even point? Draw a well labelled diagram to show the break-even point. [2]

OR

(i) Explain the short run equilibrium of a firm facing losses under Perfect Competition. [4]

Question 6

(i) State any two secondary functions of money. [2]

(ii) Explain Open Market Operations as a measure to control inflation. [2]

Question 7

Explain the concept of Investment Multiplier using a diagram. [4]

Question 8 [4]

(i) Per capita income is not considered a good indicator of the economic welfare. Explain this statement by giving any two reasons.

OR

(ii) With the help of appropriate examples, briefly discuss Real GDP and Nominal GDP.

Question 9

(i) How are revenue receipts different from capital receipts in a budget? Give one example of each receipt. [2]

(ii) What is public expenditure? How does public expenditure on social security schemes enhance production in an economy? [2]

SECTION C — 32 MARKS

Question 10

(i) State any two features of Oligopoly. **[2]**

(ii) Discuss any four differences between Monopoly and Monopolistic Competition. **[6]**

Question 11

(i) Define income elasticity of demand. When can it be negative? **[2]**

(ii) With the help of a diagram, explain how the consumer will attain equilibrium on consumption of a single commodity at a given price **[6]**

OR

(i) Briefly explain on two exceptions to the Law of Supply. **[2]**

(ii) Explain any four factors affecting Price Elasticity of Demand. **[6]**

Question 12

(i) Briefly discuss any two precautions to be taken while calculating national income by the value added method. **[2]**

(ii) Calculate GDP_{mp} and NNP_{Ic} by Value Added method from the following data. **[6]**

	PARTICULARS	₹ (crores)
(i)	Net value added at factor cost in Primary sector	6000
(ii)	Net value added at factor cost in Secondary sector	4000
(iii)	Net value added at factor cost in Tertiary sector	4500
(iv)	Net Factor Income from Abroad	(–)50
(v)	Net Indirect taxes	150
(vi)	Intermediate consumption	2500
(vii)	Depreciation	500

OR

(i) With the help of a diagram, show the circular flow of income in a two-sector model with savings and investment. **[2]**

(ii) Calculate National Income and Operating Surplus from the following data: **[6]**

	PARTICULARS	₹ (crores)
(i)	Government final consumption expenditure	900
(ii)	Net factor income from abroad	210
(iii)	Private final consumption expenditure	1000
(iv)	Net domestic capital formation	300
(v)	Profits	320
(vi)	Rent	190
(vii)	Net exports	(–)75
(viii)	Interest	200
(ix)	Net indirect taxes	265

Question 13

Read the passage given below and answer the questions that follow.

A change in the rupee-dollar exchange rate represents the change in external value of rupee. The value of rupee, in terms of dollar, has been falling continuously over a period of time. Since rupee-dollar exchange rate is determined by the demand for and supply of dollars, it is possible that the value of rupee slides further if appropriate measures are not taken.

The Reserve Bank of India, in-charge of both internal and external value of rupee, has repeatedly emphasised on maintaining stability in the foreign exchange market.

(i) What kind of exchange rate system is being referred to in the passage? **[1]**

(ii) 'The value of rupee, in terms of dollar, has been falling continuously over a period of time.' Give the economic term for this phenomenon. **[1]**

(iii) How would this phenomenon affect balance of payments? **[2]**

(iv) Explain the role of Reserve Bank of India, as a custodian of foreign exchange. **[2]**

(v) Suggest any two measures to correct adverse Balance of Payments. **[2]**

ANSWERS

SECTION A

1. (i) Option (b) is correct.

Explanation: Total utility refers to the aggregate or total amount of satisfaction that a rational consumer receives through the consumption of a specific good or service.

(ii) Option (b) is correct.

Explanation: When price and total expenditure of a commodity increases in same direction, it means nature of price elasticity of commodity is less elastic demand. It occurs when the change in the amount of a product demanded in due proportion is less than the change in price in due proportion.

(iii) Option (d) is correct.

Explanation: From the given options, only "price of the commodity produced by the firm remain constant" is not a correct assumption of law of supply. Ceteris paribus assumptions of law of supply are: The price of other commodities, State of technology, factor cost and taxation laws remain the same.

(iv) Option (c) is correct.

Explanation: The given figure shows the demand curve of complementary goods of Z. Demand for a complementary good X decreases when the price of the commodity Z rises.

(v) Option (d) is correct.

Explanation: A decrease in supply due to poor weather condition will cause a rise in the equilibrium price of rice, when the quantity demand for rice remains the same. This is because in case of poor weather conditions, supply curve will shift towards left and hence demand remaining same, equilibrium price will rise.

(vi) Option (a) is correct.

Explanation: According to the law of variable proportion or short-run production function, when marginal product turns negative, total product will fall, while average product will remain positive.

(vii) Option (d) is correct.

Explanation: Induced investment refers to that investment which changes as the level of income changes in the economy. It means Induced Investment is a capital investment that is influenced by National Income.

(viii) Option (a) is correct.

Explanation: All paper currency is inconvertible money. It means, the issuing authority is not responsible to convert the paper notes into gold or gold coins.

(ix) The short run cost curves AVC, AC and MC are U-shaped because of the application of the Law of Variable Returns to Factor. According to this law, as the quantity produced of a commodity increases, the average variable costs diminish, reach a minimum and then start to rise.

(x) Impact refers to the initial burden of the tax, while incidence refers to the ultimate burden of the tax. The impact of taxation occurs when the tax is imposed. Tax incidence is on the person who finally bears the tax.

(xi) False.

The interest rates offered by banks on Recurring Deposit are always more than saving deposit. Since RD interest rates are identical to the interest rates offered in fixed deposits.

(xii)

Income (Y)	Saving (S)	Consumption (C) $= Y - S$	$APC = \frac{C}{Y}$
0	– 12	12	$\frac{12}{0} = 0$ or –
20	6	14	$\frac{14}{20} = 0.7$

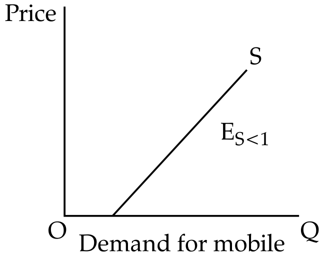
(xiii) It is a fund containing money set aside or saved to pay off a debt or bond. Sinking fund can be referred to as a method of calculation of depreciation for an asset in which apart from calculating depreciation,some funds are kept to replace the asset at the end of its useful life.

(xiv) A situation when the Aggregate Demand is less than the Aggregate Supply in an economy, corresponding to full employment in the economy, is known as deficient demand.

(xv) An effective demand is also known as ex-post demand. Effective demand means the amount of goods that consumers are actually buying. This aspect of demand is considered as both effective and ex-post demand.

(xvi) An accounting cost is the monetary value of expenditures for hiring or buying input or factor of production, e.g., raw material, equipment, etc.

2. (i) When the proportionate changes in quantity supplied is less than proportionate change in price, supply elasticity become less than unity. The elasticity of supply of mobile handset is following:



(ii) Given,

$$\text{Initial Price} = 100$$
$$\text{New Price} = 80$$
$$\text{Change in Price } (\Delta P) = 80 - 100 = (-)\,20$$
$$\text{Initial Quantity Demand} = 30$$
$$\text{Elasticity} = 2$$

Let New Demand $(\Delta Q) = x$

Thus, Elasticity of demand $= -\dfrac{\Delta Q}{\Delta P} \times \dfrac{P}{Q}$

$$2 = -\frac{x}{-20} \times \frac{100}{30}$$

$$2 = \frac{100x}{600}$$

or $100x = 1200$

$$x = 12$$

New quantity is $= (\Delta Q + Q)$ or $x + 30$

Thus, $30 + 12 = 42$

3. (i)

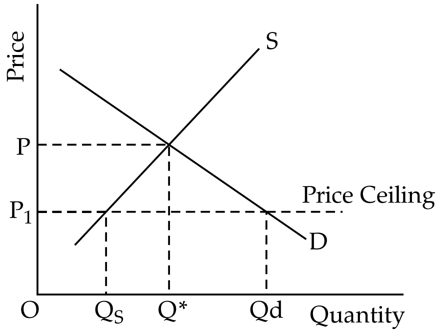
Output (units)	Total cost	Total fixed cost	Total Variable cost (TVC) = $(TC - TFC)$	Marginal cost ($MC = TC_n - TC_{n-1}$)
0	40	40	0	—
1	60	40	20	20
2	78	40	38	18
3	97	40	57	19

Note: Total cost at zero level of output is fixed cost at every level of output

(ii) Difference between return to a factor and return to scale are:

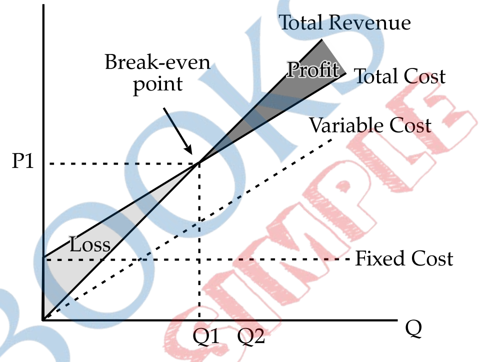
Return to a factor	Return to scale
It applies to the short-run production function.	It is concerned with the long-run production function.
Only variable factor of production is changed while all other factors are kept constant.	All the factors are changed simultaneously and in the same proportion.

3. (i) Price ceiling signifies that price which a seller can change at the maximum due to government intervention. It is the situation when the government imposes upper limit on the price of a good. In following diagram, price ceiling is shown at price OP_1



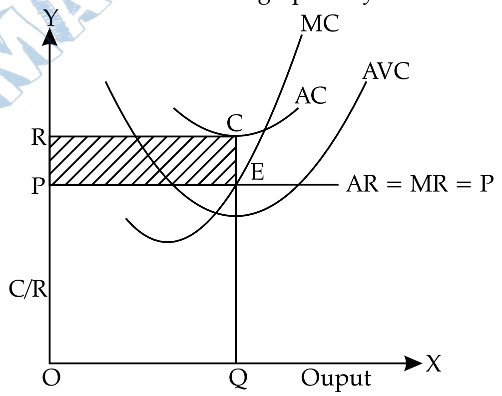
5. (i) Under perfect competition, only normal profits prevail in the long run because of freedom of entry and exit of the firms in the market. If firm earn supernormal profit in short run, more firms will enter the market, which causes the supply curve to shift to the right, which will cause prices to fall until economic profits are normal.

(ii) The break-even point refers to the stage at which total cost and total revenue of a firm are equal. At break-even point at an enterprise earns only normal profit. Break-even Point is amount of total revenue which is equal to total expenses.



OR

(i) The situation occurs when the price is so low that it does not cover fully the AFC. The market price is less than AC of production and the firm incurs losses. This situation is graphically illustrated.



At price OP determined by the intersection of market demand and supply curve equilibrium is at point E. At point E, MC = MR and MC curve cuts MR from below. Losses are incurred.

Losses are calculated as:

$$AR = MR = P$$
$$TR < TC$$
$$TR = PEQO$$
$$TC = RCQO$$
$$LOSS = RCEP$$
$$AR = P \text{ covers AVC}$$

The firm is not able to completely cover the AFC. The firm still continues to produce even though there are losses because at least the AVC is being covered by the price.

6. (i) Secondary functions of money

- **Standard of Deferred Payment:** Deferred payment means those payments which are to be made in future. Money performs this function successfully by enabling the payment of loans to be made in future.

- **Store of Value:** Money has merit to store of value because its utility is never lost. It contains purchasing power in future also.

(ii) Open market operation is the credit control policy of Central Bank (RBI) that focuses on increasing and decreasing the stock of liquidity with the people, through sale and purchase of securities of government's assets.

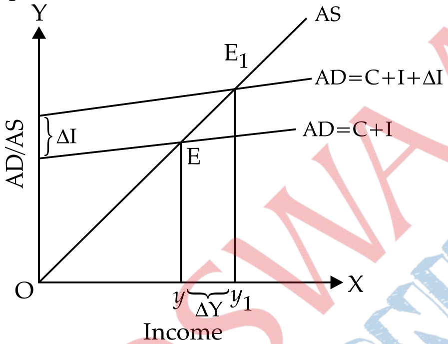
By selling the securities the central Banks Soaks liquidity and by buying securities, the central banks releases liquidity.

7. (i) Investment multiplier is the ratio of an increase of income to given increase in investment. Investment multiplier refers to the increase in the aggregate income of the economy as a result of an increase in the investments done by the government in the form of new projects.

The formula of investment multiplier can be expressed as:

$$K = \frac{\Delta Y}{\Delta I}$$

Graphically investment multiplier can be represented as follows:



8. (i) Per capita income is not considered a good indicator of economic welfare due to following reasons:

- Per capita income can sometimes be misleading because there is unequal distribution of wealth between rich and poor.
- Per capita income does not reflect the standard of living of the people. While standard of living is directly concerned with economic welfare.

OR

(ii) Real GDP: Real gross domestic product is an inflation-adjusted measure of the value of all goods and services produced in an economy. It is expressed in base year prices and referred to as a fixed cost price. It is also known as inflation-corrected GDP or constant price GDP. It is a reliable index of economic growth.

Nominal GDP: Nominal gross domestic product (GDP) is GDP given in current prices, without adjustment for inflation. Current price estimates of GDP are obtained by expressing values of all goods and services produced in the current reporting period. It means, the market value of the final production of goods and services within a country in a given period using that year's prices.

For example: Suppose current year's production in a hypothetical economy is 1,000 units at a price of ₹ 500, the GDP at current year price is 1000 × ₹ 500 = ₹ 5,00,000, so the nominal GDP is ₹ 5,00,000. Suppose base year price is ₹ 400, the GDP at base year price is 1000 × ₹ 400 = ₹ 4,00,000. So the Real GDP is ₹ 4,00,000.

9. (i)

Revenue receipts	Capital receipts
Revenue receipts do not cause any reduction in assets.	Capital receipt causes reduction in assets of the government.
Do not create any corresponding liabilities to the government	It creates corresponding liabilities for the govern-ment.
Example: Tax receipts of the government	**Example:** Loans taken by the government and disinvestment.

(ii) Public expenditure refers to the overhead expenses of the government which is spent on collective needs and wants, such as pension, provisions, security, infrastructure, etc. It increases production capacity of an economy. Income and savings also increase and create a beneficial effect on investment and capital formation.

10. (i) Features Oligopoly:

(a) There are few big sellers. Each seller has a signifies share of the market thus has huge impact on prices.

(b) An Oligopoly firm has intense competition and cannot ignore the reaction of rival firms as there is interdependence.

(ii)

Basis	Monopoly firm	Monopolistic Competition
Number of firm	Only one firm	Large number of firms
Nature of commodity	Single product and no close substitute	Product differentiation
Entry and Exit of firm	No entry of new firm	Free exit of old firms and new firms can join the market.
Selling cost	Advertisement may be informative not competitive.	Competitive advertisement may take place.
Relation between firm and Industry	No difference between firm and industry because there is only one firm into the industry.	A close relation between firm and industry because market has large number of firm.
Price and Profit	Firms obtain abnormal profit in the long run.	Firms obtain only normal profit in the long run.

11. (i) Income elasticity of demand refers to changes in consumer income relative to the amount of a good that consumers demand. It is the corresponding change in the demand of a product in response to the change in a consumer's income. It should be negative when the rise in the consumer's income results in the decline of the quantity demanded for the product.

(ii) A consumer purchasing a single commodity will be at equilibrium, when he is buying such a quantity of that commodity, which gives him maximum satisfaction.

Being a rational consumer, he will be at equilibrium when marginal utility is equal to the price paid for that commodity, i.e.,

$$\frac{MU_x}{P_x} = MU_m$$

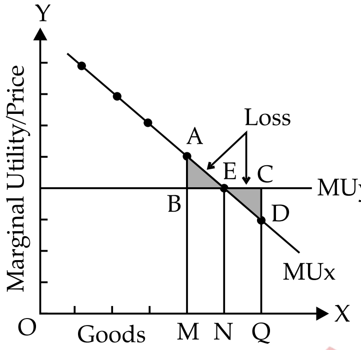


Diagram shows, E point is the point of consumer's equilibrium. A consumer consume ON units of commodity. If he increases his consumption to OQ, DQ utility is obtained by additional NQ quantity of good. Marginal utility of expenditure remains previous level. Consumer will postpone his consumption to the point where price of goods become equal to marginal utility.

OR

(i) Exception of law of supply:

(a) Agricultural Products: The supply of agricultural products can't be increase by a certain level because land is a limited resource. Thus, Supply can't be increased, even if the price increases.

(b) Monopoly: In case of monopoly, monopolist is the price maker and has all control over the prices as he is the single seller goods. Thus, he may not be willing increase supply at any increased price.

(ii) Price elasticity of demand may be defined as the percentage change in the quantity demanded of a commodity divided by the percentage change in price of that commodity. The following factors affect the price elasticity of demand:

- **Nature of goods:** Different nature of goods have different elasticity. Necessary goods have inelastic demand while luxury goods are more elastic.
- **Substitute goods:** When substitute goods are available in the market, and then the demand elasticity of such goods is highly elastic.
- **Income level:** Elasticity of demand may vary with different level of income. Elasticity for rich people is generally inelastic because increases in price level do not affect them severely while elasticity of demand for poor people is highly elastic.
- **Tastes and habits:** If a consumer is used to habitual goods, then the price elasticity will not affect his demand.
- **Diversity in use:** Commodities that can be put to variety of uses have elastic demand. On the other hand, if a commodity has only few uses, its demand is inelastic. **(Any four)**

12. (i) Precautions regarding value added method are as follows:

- Value of intermediate goods must not be added to the National Income as these are already added to the value of final goods.
- Sale of second-hand goods should not be considered.
- Production for self-consumption must be included. **(Any four)**

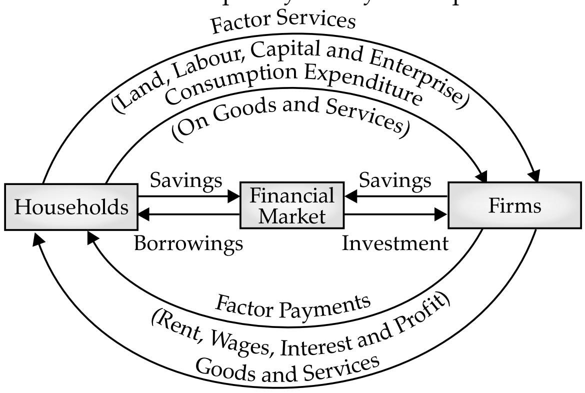
(ii) Estimation of Gross Domestic Product at Market Price or GDP_{MP} by Value added Method

GDP_{MP} = Net Value Added at factor cost in Primary Sector + Net Value Added at factor cost in Secondary Sector + Net Value Added at factor cost in Tertiary Sector + Net Indirect Tax + Depreciation
= 6000 + 4000 + 4500 + 150 + 500
= ₹ 15150 crore

NNP_{FC} = Net Value Added at factor cost in Primary Sector + Net Value Added at factor cost in Secondary Sector + Net Value Added at factor cost in Tertiary Sector + Net factor income from Abroad
= 6000 + 4000 + 4500 + (–)50
= ₹ 14450 crore

OR

(i) Circular flow of income refers to the flow of payments and receipts for goods, services, and factor services between the households and the firm sectors of the economy. In the real life both households sector and producer sector save a part of their income. This saving is withdrawn from money flow and consequently money flow squeezes.



(ii) Measure of National Income by Expenditure Method are as follows:

National Income

= Governmental Final Consumption Expenditure + Private Final Consumption Expenditure + Net Domestic Capital Formation + Net Factor Income from Abroad + Net Export – Net Indirect Tax

$NNP_{FC} = 900 + 1000 + 300 + 210 + (-)75 - 265$

= ₹ 2070 crores

Operating Surplus = Rent + Profit + Interest

= 190 + 320 + 200

= ₹ 710 crores

13. (i) Floating exchange rate and demand for foreign exchange.

(ii) Currency depreciation.

(iii) Depreciation in domestic currency tends to reduce positive balance of payment in the medium and long run. It tends to improve the current account balance of payments. This is because exports increase relative to imports. However, this assumes that demand for exports and imports are relatively elastic.

(iv) Reserve Bank of India acts as custodian of foreign exchange reserves. It is helpful in eliminating difficulties of balance of payments and in maintaining stable exchange rate. For minimizing fluctuations in foreign exchange rate, central bank buys or sells foreign exchange in the market.

(v) Measures to correct adverse balance of Payment are as follows:

- Exports should be encouraged by granting various bounties to manufacturers and exporters. At the same time, imports should be discouraged by undertaking import substitution and imposing reasonable tariffs.
- To reduce imports reduce deficit in balance of payments is to adopt monetary and fiscal policies that aim at reducing aggregate expenditure in the economy. The fall in aggregate expenditure or aggregate demand in the economy works to reduce imports and help in solving the balance of payments problem.