ICSE BOARD EXAM – 2019
(ANNUAL)

ECONOMICS

Maximum Marks : 80

(Candidates are allowed additional 15 minutes for only reading the paper. They must NOT start wiling during this time.)

Answer Question 1 (compulsory) from Part I and five questions from Part II.
The intended marks for questions or parts of questions are given in brackets [ ].

PART I (20 Marks)

Answer all questions.

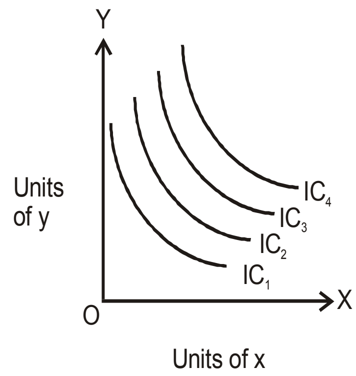
Q.1 Answer briefly each of the following questions (i) to (x): **[10 × 2]**

(i) What is meant by product-differentiation in monopolistic competition?

Sol. When there is a difference between the commodities produced by different firms then it is known as product differentiation. This difference may be of colour, shape, size, weight, taste, texture, trademark, brand name, packing, etc. Goods produced by different firms are similar but not identical.

(ii) Explain an indifference map, with the help of a diagram.

Sol. If two or more indifference curves are shown in a single diagram then that diagram is termed as Indifference map.
It is also termed as family of indifference curves.



(iii) Give two examples of each of the following:

(a) Revenue receipts of the government.

(b) Revenue expenditure of the government.

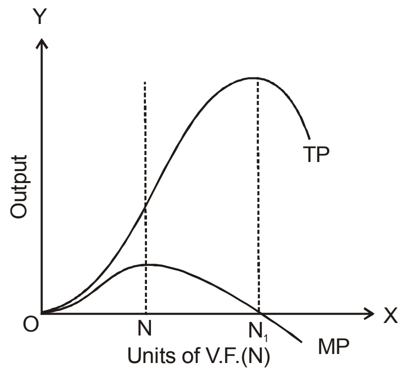
Sol. (a) Direct Tax and Indirect Tax.

(b) Interest payments, subsidies

(iv) With the help of a diagram, state the behaviour of MP when:

(a) TP of the variable factor reaches maximum.

(b) TP of the variable factor falls.



Sol.

(a) When MP is zero, TP is maximum.

(b) When MP becomes negative, TP starts to diminish.

(v) What is meant by High Powered Money?

Sol. The currency created by the Central Bank (Reserve Bank of Indian in India) is called High Powered Money.

(vi) Distinguish between depreciation and devaluation.

Sol.

Basis	Devaluation	Depreciation
Meaning	1. It means deliberate decrease in price of domestic currency in terms of other currency by government.	1. It means fall in value of domestic currency in terms of other currency and it takes place due to market forces of demand and supply of foreign exchange.
Type of exchange rate regime	2. It takes place in fixed exchange rate regime.	2.It takes place in floating exchange rate regime.

(vii) Explain any two precautions to be taken while calculating national income by income method.

Sol. The following precautions are to be taken while measuring National Income by Income Method :

– **Transfer earning** should not be included in National income, such as old age pensions, unemployment allowances, pocket money, scholarship etc. (because they don't contributes in production process).

– **Income form illegal activities** should not be included in the National income such as smuggling, theft, gambling etc. (Because they are illegal).

(viii) Differentiate between accounting cost and opportunity cost.

Sol. **Accounting Cost:** The costs which are known by profit and loss account of the firm are called accounting costs.

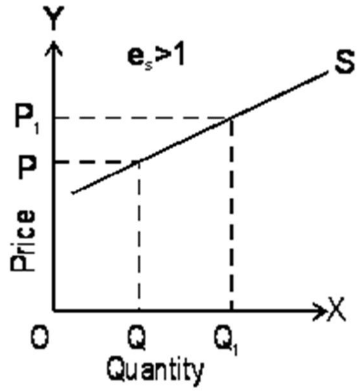
Opportunity Cost : The cost of next best alternative forgone is called opportunity cost.

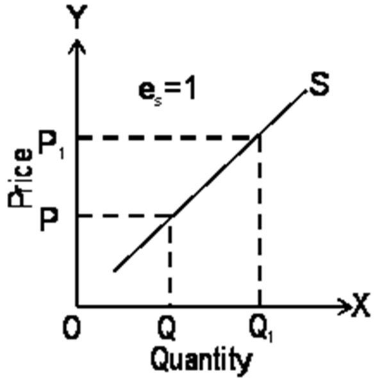
(ix) With the help of diagrams, show when the elasticity of supply is:

(a) greater than one

(b) equal to one

Sol.





(x) What is meant by investment multiplier ?

Sol. "The increase in income due to increase in investment is known as multiplier." or "Multiplier means the ratio of change in income to the change in investment".

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

Here K = Multiplier ;

ΔY = Change in Income ;

ΔI = Change in investment.

.

PART II (60 Marks)

Answer any five questions.

Q.2

(a) How does an increase in income affect the demand for the following: **[3]**

(i) A normal good

(ii) An inferior good

Sol.

(a) **A normal good**

(i) There is a positive relationship between income and demand of normal goods.

(ii) Demand curve shifts rightwards with the rise in income of consumer and demand curve shifts leftwards with the fall in income of consumer.

An inferior good

(i) There is negative relationship between of consumer income of consumer and demand of inferior goods.

(ii) Demand curve shifts leftwards with the of rise in income of consumer and demand curve shifts rightwards with the fall in income of consumer.

(b) Discuss any three reasons for the leftward shift of a supply curve. **[3]**

Sol. **(i)** Increase in price of the other commodities.

(ii) Increase in price of inputs.

(iii) Outdated Production Technique

(c) Explain how a consumer attains equilibrium using indifference curve analysis. **[6]**

Sol. Consumer's equilibrium means the level of consumption at which the consumer gets maximum satisfaction with his limited monetary income and the consumer has no tendency to make any changes in his existing consumption or existing expenditure on commodities.

Assumptions : In indifference curve analysis there are some assumptions which are used in explanation of consumer's equilibrium :

(i) Consumer is rational and make rational expenditure on commodities to attain maximum satisfaction.

(ii) The consumer has a fixed income to be spent entirely on two commodities.

(iii) Prices of concerned commodities, prices of other commodities and income of consumer remain constant.

(iv) MRS continuously diminishes.

(v) Commodities are homogenous and divisible.

(vi) Consumer has an indifference map which shows his scale of preferences.

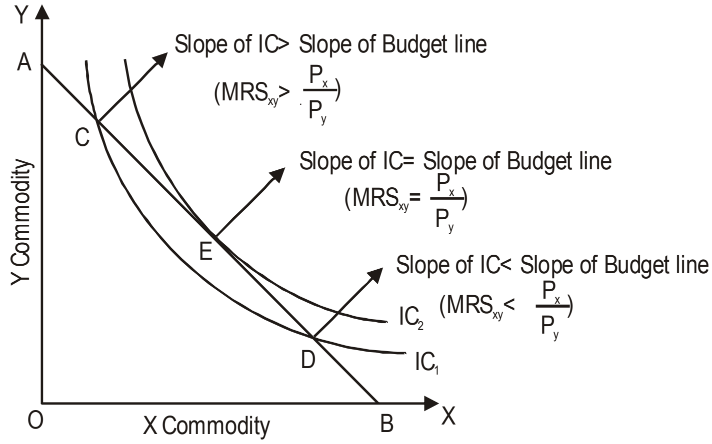
(vii) Consumer prefers more units of a commodity in comparison to less of it.

(viii) Other factors which can affect the level of satisfaction of consumer are assumed to be remain constant.

Conditions for consumer's equilibrium :

There are three conditions which are required for the consumer's equilibrium. If these conditions applies, then the consumer is said to be in equilibrium.

Explanation :



(i) **First condition** : The total amount of money available to the consumer should be equal to the total expenditure made on these two commodities together. This condition fulfills only on the budget line.

TOTAL MONETARY INCOME = (Px X Qx) + (Py X Qy)

Point C, D, E satisfies this condition of equilibrium. But the consumer give preference to combination of point E in comparison to C and D because point E is on the IC_2 whereas point C and D are on IC_1. As we know that higher indifference curve shows higher level of satisfaction. Therefore the consumer will give preference to E combination, as it provides higher level of satisfaction without any extra expenditure.

(ii) **Second condition** : The budget line should be tangent to the indifference curve or we can say that the slope of budget line should be equal to the slope of indifference curve.

Slope of the budget line = Px / Py,
slope of indifference curve = MRSxy.

In the present diagram at E point the MRSxy = Px / Py
Therefore point E satisfies the second condition also.

(iii) **Third condition**: At the point of tangency indifference curve must be convex towards the origin. At point E indifference curve is convex towards the origin. Therefore point E satisfies the third condition also.

So in order to attain the maximum satisfaction the above three conditions of equilibrium should be applied at the same point. In the present diagram at E point all three conditions are satisfied, therefore point E will be the equilibrium point and that's why consumer will consume OX units of X commodity and OY units of Y commodity in order to maximise the level of satisfaction.

Q.3

(a) Discuss two differences between returns to scale and returns to a variable factor. **[3]**

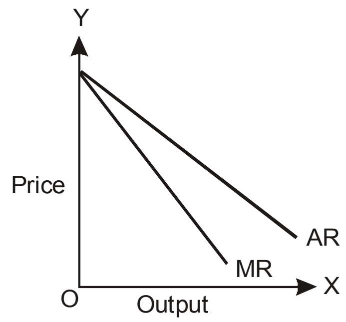
Ans.

Basis	Returns to Scale	Returns to a Variable Factor
Meaning	Returns to Scale are studied with reference to Constant Proportions type Production	Returns to a Factor are studied with reference to Variable Proportions type Production
Basis	Returns to Scale are studied when all factors of Production are Variable and change in	Returns to a Factor are studied when one factor alone is Variable and other factor
Nature	In case of Returns to Scale, Scale of Production ought to	In case of Returns to a Factor, Scale of Production does not

(b) With the help of a diagram, explain the relationship between AR and MR of a firm under imperfect competition. **[3]**

Sol.

Q	P	TR	AR	MR
1	10	10	10	10
2	9.5	19	9.5	9
3	9	27	9	8
4	8.8	34	8.5	7



In Imperfect competition market, the seller decreases the price of the commodity in order to maximise its profit by increasing the sales. As MR decreases with the increase in sales then AR will also decreases but AR decreases with slower rate, therefore AR is more than MR. This condition is possible in this market because firm follows the independent price policy.

(c) Discuss any four features of monopoly market. **[6]**

Sol. **(i)** **Single Producer :** In this type of market , there is only one producer of the commodity, therefore that producer is supplying 100 % of that commodity, means he is controlling the entire supply of the market. Therefore that firm can effect the Price and Supply of the Market .

(ii) **No close substitute available in the market :** In monopoly market, we can not see any close substitute of the commodity. Substitutes are possible but close substitutes are not possible. For example Railways. Govt. of India has monopoly in running the trains in India. There are other means of transportations available in the market. They are substitute to it but not close substitute. Therefore cross elasticity of demand is zero.

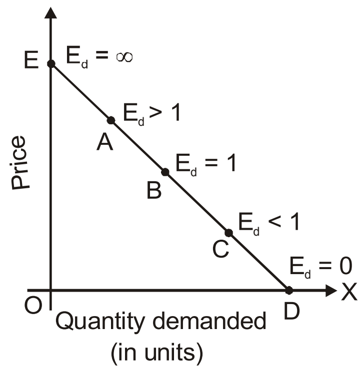
(iii) **Selling Cost exist but less important :** In monopoly market selling cost exist and included in cost of production. Advertisements are given to introduce the commodity in the market and to recall the memory of the consumers. But the expenses made by the firm on the selling techniques is very less because there is no other close competitor of the existing firm in the market.

(iv) **Restrictions in Entrance and Exit of Firms :** In monopoly market there is physical, legal, social, political or other type of restriction due to which new firm cannot enter in the market. These restrictions are applied in order to maintain the monopoly in the market.

Q.4

(a) Explain the various degrees of price elasticity of demand at different points on a straight line demand curve. **[3]**

Sol.



This method is also known as point elasticity method because we can measure the elasticity of demand at any point on the demand curve. For this, first of all we have to draw a tangent from that point and extend it leftward and rightwards until it intersect X and Y axis.

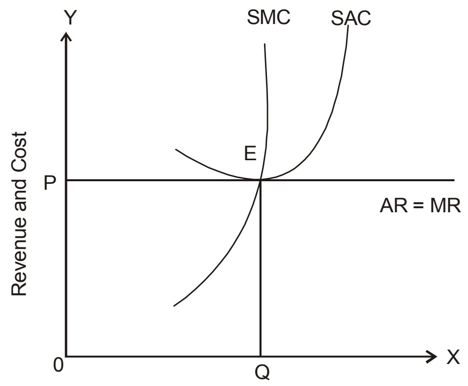
With the help of following formula we can calculate elasticity of demand of various point –

$$E_d = \frac{\text{(Lower Segment)}}{\text{(Upper Segment)}}$$

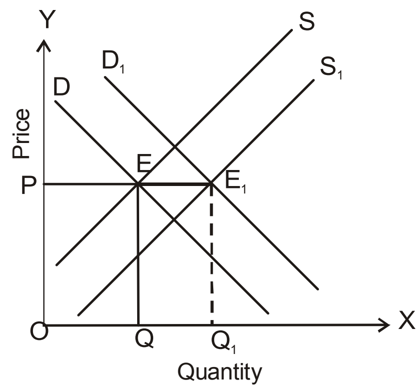
(b) Show with the help of a diagram, how a perfectly competitive firm earns normal profit in short run equilibrium. **[3]**

Sol. **Situation Normal Profit :** If the market price is only this that the average cost (AC) and average Revenue (AR) of the firm are equal, then the firm will gain only normal profit or zero profit. It may be explained with the help of diagram. In this situation firm get normal profit.

In this diagram At point E, firm is in equilibrium. At this point, SMC curve cuts MR curve, upwards from below. In this situation, production of the firm is OQ at E point. To know whether the firm is getting profit or not, AR and AC curves are compared. It is clear that AR line is touching AC line as point E. The distance between these lines is zero. Hence, firm is gaining normal profit.



(c) Explain with the help of diagrams how equilibrium price changes when there is simultaneous increase of both, demand and supply. **[6]**



Sol. When the percentage increase in demand is equal to the percentage increase in supply then the equilibrium price will remains constant and equilibrium quantity will increases.

Q.5

(a) Discuss any two exceptions to the law of demand. **[3]**

Ans. **(1)** **Giffen Goods :** The demand for giffen goods decreases with the fall in its price and increases with the rise in its price. This situation is known as Giffen paradox. Ex. Coarse grain, Coarse cotton cloth, etc.

(2) **Necessities :** There are some goods which are necessities of the modern life. A minimum quantity of these goods has to be purchased by the consumers irrespective to there prices. Such as foodgrain, cloth, medicine, petrol etc.

(b) Study the cost function of a firm given below:

Output (Units)	0	1	2	3
TC (₹)	30	90	110	120

Calculate : AFC, AC and MC.

Sol.

Output (Units)	**TC**	**AFC**	**AC**	**MC**
0	30	-	-	-
1	90	30	90	60
2	110	15	55	20
3	120	10	40	10

(c) A producer is in equilibrium when MR = MC. Explain this statement with the help diagram. **[6]**

Sol. "The producer's equilibrium refers to the situation in which producer maximizes his profits and the producer has no intention to make any changes in his existing production".

Profit of the firm operating in perfect competition market, is maximised where the price line (AR = MR) intersects the MC curve and MC should be rising.

ASSUMPTIONS :

(i) Rational behaviour of producer.

(ii) The goal of producer is profit maximisation.

(iii) Price of commodity remains constant.

(iv) Price of means of production remains constant.

(v) There is perfect competition exist in market.

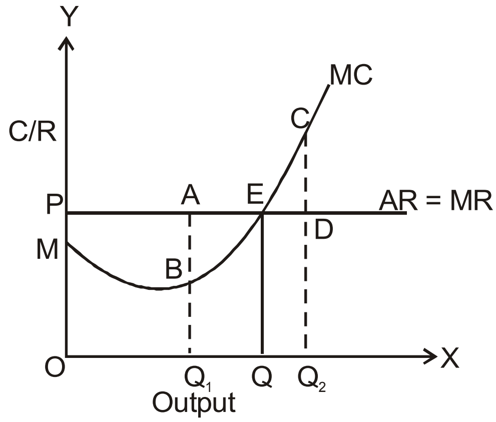
(vi) Technique of production and management remains constant.

CONDITIONS FOR PRODUCER'S EQUILIBRIUM :

(a) MR = MC.

(b) MC should be rising at that level of output .
(or MC curve intersects MR curve from below).

Q	P/AR/MR	MC
1	20	15
2	20	10
3	20	15
4	20	20
5	20	25
6	20	30



In present diagram At “E” point MC curve intersects the MR curve and MC is increasing. Which means both the condition of producer's equilibrium is satisfied at this level. Therefore the producer will try to produce “OQ” units of this commodity, where he will receive maximum profit.

Q.6

(a) Explain how public expenditure can be used as an instrument of fiscal policy to solve the problem of : **[3]**

(i) Income inequality

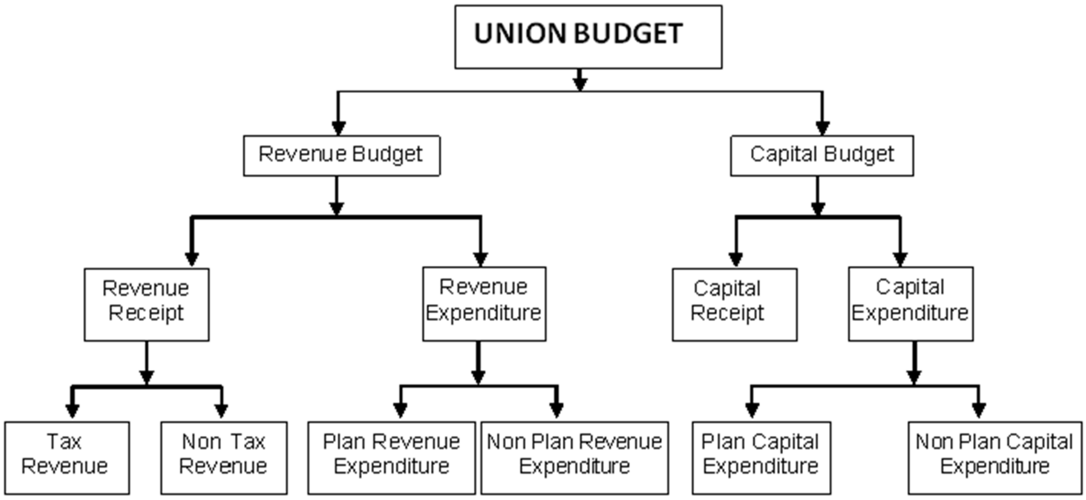
(ii) Inflation

Sol. **(i)** Public expenditures are income generating and include all types of government expenditure such as capital expenditure on public works, relief expenditures, subsidy payments of various types, transfer payments and other social security benefits. Government may spend money on performance of its large and ever-growing functions and also for deliberately bringing in Income equality. it initiate a fresh wave of public works, such as construction of roads, irrigation facilities, sanitary works, ports, electrification of new areas etc. Government expenditure involves employment of labour as well as purchase of multitude of goods and services and with the help of progressive tax system, it try to eliminate income inequality.

(ii) Public expenditure is also used as a policy instrument to reduce the severity of inflation and to bring down the prices. This is done by reducing government expenditure when there is a fear of inflationary rise in prices. Reduced incomes on account of decreased public spending helps to eliminate excess aggregate demand and help to correct inflationary situation in economy.

(b) Differentiate between the revenue and capital components of the union budget. **[3]**

Sol.



(c) Discuss briefly the various components of balance of payment. **[6]**

Sol. **Components of Balance of Payment Account.**

(1) **Current Account :** Current Account is that Account which report Import and Export of Goods and Services and unilateral transactions. In other words transaction relating to Trade in Goods and Services and Transfer Payment constitute the Current Account .

Components of Current Account :

(i) **Visible Items :** It includes the exports and imports of all physical goods. Their difference is known as trade balance. It may be balanced, surplus or deficit.

(ii) **Invisible Items:** It can be classified in :

(a) **Non-factor Services :** It includes services rendered and received by the residents of country with respect to rest of the world, such as transportation services, financial services (insurance, banking services) provided to foreign tourists, students etc. Services provided to rest of world is included in credit side and services received on debit side.

(b) **Income on Investments :** It includes interest on foreign loans, profit, receipts of payments, royalties, etc. Receipts of these income are included in credit side and payments are included in debit side.

(iii) **Transfer Payments :** It refers to the unilateral transfers, such as foreign gifts, donations, etc., which domestic residents and Government receives or residents and Government makes to abroad. There is no repayment for such items. They can be classified into:- Official transfer payments (transfer payments by Government) and private transfer payments (transfer payments by individuals, institutions or organisations). Receipts of these transfers are included in credit side and payments of these transfer are included in debit side.

(2) **Capital Account :** Capital Account is that Account which records all such transactions between residence of the country and rest of the world which cause a change in the assets or liability status of the residence of a country or it's Government.

Components of capital accounts -

(i) **Private Capital :** It includes short term and long term capital, which includes

(a) **Short Term Capital :** Purchase of short term securities, speculative purchase of foreign currency, etc.

(b) **Long Term Capital :** Foreign Direct Investment, Portfolio investment, long term loans., etc.

(ii) **Official Capital :** It includes loans, re-purchase and re-sale of securities sold to the foreigners, sale or purchase of gold from abroad, etc.

(iii) **Banking Capital :** Banking capital essentially covers movements in the external financial assets and liabilities of commercial and co-operative banks authorized to deal in foreign exchange.

The purchase of an assets in another country is included in debit side and sale is included in credit side.

Q.7

(a) Discuss any two limitations of credit creation by commercial banks. **[3]**

Sol. **Lack of cash :**

The total amount of cash, available to the banking system limits the volume of credit that can be create. Credit is based on cash. The banks must keep a certain percentage of cash reserve. The total volume of credit cannot ordinarily be larger than the total amount of cash available multiplied by the customary reserve-ratio. The Central Bank control credit by measures, like open market operations and variations of the reserve ratio, which affect the quantity of cash in the hands of the banks and thereby influence their lending policy.

The habits of the people

The habit regarding the holding of cash can affect credit creation. If liquidity-preference increases, there will be less cash in the hands of the bank and they will be forced to lend less. In countries with an under developed banking system, the people tend to hoard cash. This reduce the power of banks to create credit.

(b) Explain two secondary functions of money. **[3]**

Sol. **Store of value :** Store of value function means storing assets for use in future. Money acts as a store of value. An individual can hold his earnings until the time he wants to spend the same.

Standard of deferred payments : Deferred payments mean payment contracted to be made at some future date. Money is a standard of deferred payment.

(c) Discuss any two qualitative methods and any two quantitative methods of credit control used by the Central Bank. **[6]**

Sol.

(1) Quantitative Method

(i) Bank Rate Policy: The bank rate is the rate of interest at which the Central Bank lends money to the commercial banks in emergency. The effect of a change in the bank rate is to change the cost borrowings from the Central bank.

- An increase in the bank rate increase the cost of borrowings from the Central Bank. Therefore, if the Central Bank increases the bank rate, the commercial banks also increase the rates at which they lend to the public and business firms. It makes borrowings by the people costly. This will discourage them to take loans. People borrow less. Thus, volume of credit and money supply will decrease in the economy.
- A decrease in the bank rate will have the opposite effect, i.e., money supply will increase.

(ii) Open Market Operations (OMO) : It is the buying and selling of government securities in the open market by the Central Bank.

- When the Central bank buys securities, it makes payments to the sellers who deposit the same in commercial banks. It increases the cash reserves of the banks and thus directly increase banks ability to give credit. So, money supply increases.
- When to Central Bank sells securities, the buyers make payment with the commercial banks decrease since money flows out of the commercial banks and into the Central Bank. This reduced bank's ability to give credit. So, money supply in the economy decrease.

(2) Quantitative Method

(i) Margin Requirement : The difference between the value of security and the amount of loan sanctioned is known as margin requirement. By changing the margin requirement Central bank can increase or decrease the credit creation in desired directions. If Central bank wants to increase the credit in a particular use then it will decrease the margin requirement for that use.

(ii) Consumer Credit : Loans given by commercial banks to the consumers to purchase the durable consumer goods, are known-as consumer's credit. Central bank can make the loans attractive or unattractive by following way :- (a) By changing the minimum down payments, (b) By changing the maximum period of repayment. (installment)

Q.8

(a) What is meant by average propensity to consume? Explain its relationship with average propensity to save. **[3]**

Sol. **Average Propensity to consume (APC):**

"The ratio of total consumption to total disposable income of economy is known as average propensity to consume." The amount of APC represents that how much part of income is consumed by the consumers of economy.

$$\textbf{APC} = \frac{C}{Y}$$

Here , APC = Average Propensity to Consume

C = Total Consumption

Y = Total Income

Average Propensity to Save (APS) :

It means the ratio of Total Saving to Total Income. In other words when we divide Savings by Income , we get Average Propensity to Save.

$$\textbf{APC} = \frac{S}{Y}$$

Here , APS = Average Propensity to save

C = Total Consumption

Y = Total Income

Relationship between APC and APS

The sum of the average Propensity to Consume (APC) and Average Propensity to save (APS) is always equal to unity. i.e., APC + APS = 1. It is so because the money income can either be spent on consumption or it can be saved. In case, we consider the ratio of consumption to money income, we call it average propensity to consume, (APC), and the ratio of saving to income represents average propensity to save (APS). It is for his reason that the sum of APC and APS equals unity.

Symbolically,

APC = C/Y and APS = S/Y

We know that Y = C + S

APC = APS = C/Y + S/Y = C+S/Y = Y/Y = 1

Here APC + APS = 1

(b) Discuss any two fiscal measures to correct a situation of deficient demand in an economy. **[3]**

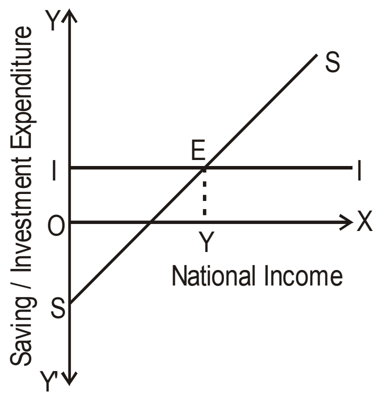
Sol. **Increases in government expenditure :** If the government expenditure is increased by an amount equal to the deflationary gap, it will restore the economy to the full employment equilibrium.

Reduction in the amount of taxes: The government can give tax concession to leave more disposable income in the hands of people. As a result, aggregate demand will increase.

(c) Explain how equilibrium level of income can be determined with the help of saving and investment approach. **[6]**

Sol. The Equilibrium Level of output of an economy can be determined by A.D.(C + I) and A.S.(C + S) approach or by I and S approach. Both these approaches provides the same conclusions. By S and I approach, the economy will be inequilibrium at that income level where saving and investment are equal or saving function curve intersects the investment function curve.

Y	C	S	I	Effect on empl./ output / Income
0	20	–20	10	Empl. ↑
40	50	–10	10	AD > AS Output ↑
80	80	0	10	Income ↑
120	110	+10	= 10	→ Equilibrium AD = AS
160	140	+20	10	Empl. ↓
200	170	+30	10	AD < AS Output ↓
240	200	+40	10	Income ↓



In the present diagram SS is the saving function curve, which shows the desired saving at each level of income by all the savers of the economy. Saving function curve starts from below the origin because at lower income levels savings are negative (because consumption is more than income). As the income increases saving will also increases. That's why saving function curve is upward sloping.

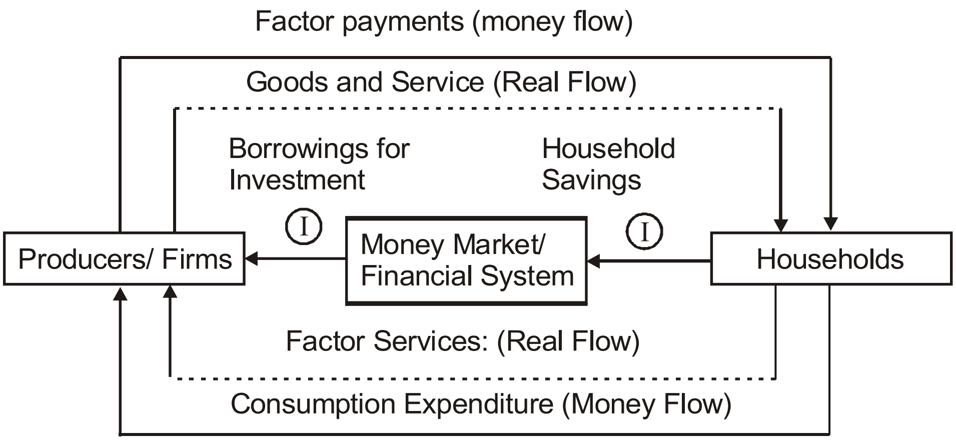
Here we assumes that firms plans to invest the same amount at different level of income (autonomous investment), therefore investment curve is parallel to X axis.

At 'E' point in present diagram I = S, which shows the equilibrium point of economy. So at output level 'OY' planned saving and planned investment are equal to 'EY'. In the present example when income was Rs 120 crores saving and investment are equal to Rs 10 crores each. Therefore Rs 120 crore is equilibrium level of income of economy.

Q.9.

(a) Draw a well-labeled diagram to show a circular flow of income in a two sector model. What happens to the flow of income when savings equals investment? **[3]**

Sol.



(i) Household lend their land,labour, capital and entrepreneurship to firms for production process. Firms used them to produce different goods and service and sale their whole production to households for consumption. This flow is termed as real flow, because in this flow the circular flow of goods and factor services is occuring here.

(ii) Household sector deposits their saving in capital market or take loans when consumption exceeds income. Like this the firms also acts as savers and borrowers. The household sector are said to be net lenders and firms are said of net borrowers. All lending and borrowings are done through financial system.

So as long as the lending is equal to borrowings, the circular flow will continue indefinitely.

(b) What is meant by economic welfare? Explain how GDP is an indicator of economic welfare. **[3]**

Sol. **Eeconomic welfare**

The level of prosperity an equality of living standards in an economy. It can be measured through a variety of factors such as GDP and other indicators which reflect the welfare of populations. Such as literacy, level of pollution etc.

If the GDP of a country increases, welfare of the people of that country also increase since increase in GDP implies increase in per capita real income, i.e., increase in per capita availability of goods and services. Thus, higher level of GDP of a country may be treated as an index of economic welfare. However, this does not always happen. There are certain reason or limitations why GDP cannot always be taken as a perfect index of economic welfare.

(c) From the following data calculate National Income by output method and Income method : **[6]**

Item		
(i)	Value of output	(₹ in crores)
(ii)	Value of intermediate consumption	2500
(iii)	Subsidies	1300
(iv)	Rent	40
(v)	Employer's contribution to social security	110
(vi)	Profit	30
(vii)	Wages and salaries	340
(viii)	Interest	10
(ix)	Mixed income of self-employed	360
(x)	Indirect tax	180
(xi)	NFIA	(–)30
(xii)	Consumption of fixed capital	160

Sol.10 GDP_{MP} = Value of output – Int. consumption

= 2500 – 1300

= 1200

NNP_{FC} = GDP – Depreciation + NFIA – NDOT

= 1200 – 160 – (-30) – (180 - 40)

= 1200 – 160 + 30 – 180 + 40

NI = National Income = 930 Cr.

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