

Question 2017 HUM 2207 ECONOMICS

1 . a) Explain-the concept of Economics, Microeconomics and-Macroeconomics.

Sol: The branch of knowledge concerned with the production, consumption, and transfer of wealth. Economics is a **social science concerned with the production, distribution, and consumption of goods and services**. It studies how individuals, businesses, governments, and nations make choices about how to allocate resources.

Microeconomics is **the study of individuals, households and firms' behavior in decision making and allocation of resources**. It generally applies to markets of goods and services and deals with individual and economic issues.

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Unemployment, interest rates, inflation, GDP, all fall into Macroeconomics. Consumer equilibrium, individual income and savings are examples of microeconomics.

b) What are the fundamental problems of an economy? How these problems are solved in different economics?

Sol: The fundamental economic problem is **the issue of scarcity and how best to produce and distribute these scarce resources**. Scarcity means there is a finite supply of goods and raw materials. Finite resources mean they are limited and can run out.

The basic economic activities depend on the production, distribution, and disposition of services and goods that can fulfill human requirements. However, it is known that human wants and needs have no limit. But, resources that satisfy human wants are scarce. This immensity of want and scarcity of resources gives birth to the central problems of an economy. In the history of modern human civilization, every economy has faced and tried solving these problems.

After the central problems of an economy introduction, it is important to understand all the underlined aspects of such problems. Following is a detailed discussion on the central problems that every economy faces.

- **Allocation of Resources**

A problem that an economy predominantly faces is the allocation of resources. Due to the scarcity of available resources, it leads to the troublesome situation of assigning these limited resources to produce goods and services that can fulfil societal wants maximally.

Thus, it is important to distribute the resources efficiently so that they can cater to produce several commodities to satisfy the needs of different socio-economic groups in various manners.

This decision needs to be taken depending on the three central problems of the economy.

1. What to produce
2. How to produce
3. For whom to produce
4. Are the resources economically used

To know the answer to what are the central problems of the economy, the following discussion is necessary.

1. What to Produce

This problem refers to the decisions regarding the selection of different commodities and the quantities that need to be produced. Labor, land, machines, capital, equipment, tools and natural means of resources are limited. So, it is not possible to fulfill society's every demand. Therefore, it needs to be decided what goods and services are required to be produced and what should be the quantity. Furthermore, the central problems of an economy also depend on the classification of commodities based on their degree of necessity – luxury and essential.

In an economy, the produced goods are further classified into two segments, namely consumer goods and producer goods or capital goods. Moreover, both these segments are again divided into single-use goods and durable goods.

Thus, there are two aspects to the problem, "what to produce" –

- **What Types of Goods to be Produced**

For example, every economy needs to decide on what consumer goods like rice, clothes, etc. and what producer goods like tools, machinery, etc. are required to be produced to meet demand adequately.

- **How Much Amount of Goods to be Produced**

The next challenge is to decide, in what quantity goods should be produced. It is a crucial aspect of any economy, as proportionate distribution of resources for the production of different goods to maximally satisfy wants is quintessential.

2. How to Produce

This problem is about the choice of techniques that need to be adopted and used in the production of goods and services.

The two majorly-used techniques are-

- **LIT or Labour Intensive Techniques**

This technique is used with the help of more number of labour and less involvement of capital.

- **CIT or Capital Intensive Techniques**

On the other hand, the CIT technique involves more capital involvement and less utilisation of labour.

For instance, footwear can be manufactured either in factories where a large portion of manufacturing is carried out by machines or by skilled teams of cobblers.

3. For Whom to Produce

One of the most crucial problems of the economy is to decide which commodities shall be produced for which sections of society.

For instance, essential goods and services are in demand from all sections of society, but only certain sections of society have a demand for luxury commodities. At the same time, choices of goods and services rest on prevalent tastes and preferences in an economy.

Hence, considerations regarding the socio-economic conditions of a country or market are highly pertinent to this problem.

Lastly, it is important to know that other than resource allocation, central problems of an economy have two more aspects – efficient utilisation of the

resource and development of resources. Thus, to explain central problems of an economy, one needs to delve into its core, i.e. choices concerning the limited resources available to maximize socio-economic utility.

Uneven distribution of natural resources, lack of human specialization and technological advancement etc., hinders the production of goods and services in an economy. Every economy has to face the problems of what to produce, how to produce and for whom to produce. More or less, all the economies use two important methods to solve these basic problems.

These methods are:

- (a) Free price mechanism and
- (b) Controlled price system or State intervention.

Price mechanism is defined as a system of guiding and coordinating the decisions of every individual unit within an economy through the price determined with the help of the free play of market forces of demand and supply. Such system is free from state intervention.

Price of goods and services are determined when quantity demanded becomes equal to the quantity supplied. Price mechanism facilitates determination of resource allocation, determination of factor incomes, level of savings, consumption and production. Price mechanism basically takes place in a capitalistic economy.

On the other hand, Controlled price mechanism is defined as a system of state intervention of administering or fixing the prices of the goods and services. In a socialist economy, the government plays a vital role in determining the price of the goods and services. The government may introduce 'ceiling price' or 'floor price' policy to regulate prices.

However, how a capitalist, a socialist and a mixed economic system solve their basic problems is given below:

1. Solution to Basic Problems in a Capitalistic Economy:

Under capitalistic economy, allocation of various resources takes place with the help of market mechanism. Price of various goods and services including the price of factors of production are determined with help of the forces of demand and supply. Free price mechanism helps producers to decide what to produce.

The goods which are more in demand and on which consumers can afford to spend more, are produced in larger quantity than those goods or services which have lower demand. The price of various factors of production including technology helps to decide production techniques or methods of production. Rational producer intends to use those factors or techniques which has relatively lower price in the market.

Factor earnings received by the employers of factors of production decides spending capacity of the people. This helps producers to identify the consumers for whom goods could be produced in larger or smaller quantities. Price mechanism works well only if competition exists and natural flow of demand and supply of goods is not disturbed artificially.

2. Solution to Basic Problems in a Socialistic Economy:

Under socialistic economy, the government plays an important role in decision making. The government undertakes to plan, control and regulate all the major economic activities to solve the basic economic problems. All the major economic policies are formulated and implemented by the Central Planning Authority. Therefore, the central planning authority takes the decisions to overcome the economic problems of what to produce, how to produce and for whom to produce.

The central planning authority decides the nature of goods and services to be produced as per available resources and the priority of the country. The allocation of resources is made in greater volume for those goods which are essential for the nation. The state's main objectives are growth, equality and price stability. The government implements fiscal policies such as taxation policy, expenditure policy, public debt policy or policy on deficit financing in order to achieve the above objectives.

The methods of production or production techniques are also determined or selected by the central planning authority. The central planning authority decides whether labor intensive technique or capital intensive technique is to be used for the production. While deciding the appropriate method, social and economic conditions of the economy are taken into consideration.

Under socialistic economy, every government aims to achieve social justice through its actions. All economic resources are owned by the government. People can work for wages which are regulated by the government as per work efficiency. The income earned determines the aggregate demand in an economy.

This helps the government in assessing the demand of goods and services by different income groups.

3. Solution to Basic Problems in a Mixed Economy:

Practically, neither capitalistic economy nor socialistic economy exists in totality.

Both the economic systems have limitations. Consequently, a new system of economy has emerged as a blend of the above two systems called mixed economy. Therefore, mixed economy is defined as a system of economy where private sectors and public sectors co-exist and work side by side for the welfare of the country.

Under such economies, all economic problems are solved with the help of free price mechanism and controlled price mechanism (economic planning).

Free price mechanism operates within the private sector; hence, prices are allowed to change as per demand and supply of goods. Therefore, private sector can produce goods as per their demand and their price in the market. The government may control and regulate production of the private sector through its monetary policy or fiscal policy.

On the other hand, controlled price mechanism (economic planning) is used for the public sector by the planning authority. The goods and services to be produced in the public sector, hence, are determined by the central planning authority.

Private sector determines the production technique or production method on the basis of factor prices, availability of technology etc. On the other hand, production technique or production method for the public sector is determined by the central planning authority. While determining the production technique for the public sector, national priority, national employment policy and social objectives are major considerations.

Private sector allocates its resources to produce those goods which are demanded by people who command high purchasing power. Although, production by the private sector is sometimes controlled and regulated by the government through various policies such as licensing policy, taxation policy, subsidy etc., the price determined by free price mechanism may go beyond the purchasing power of low or marginal income group.

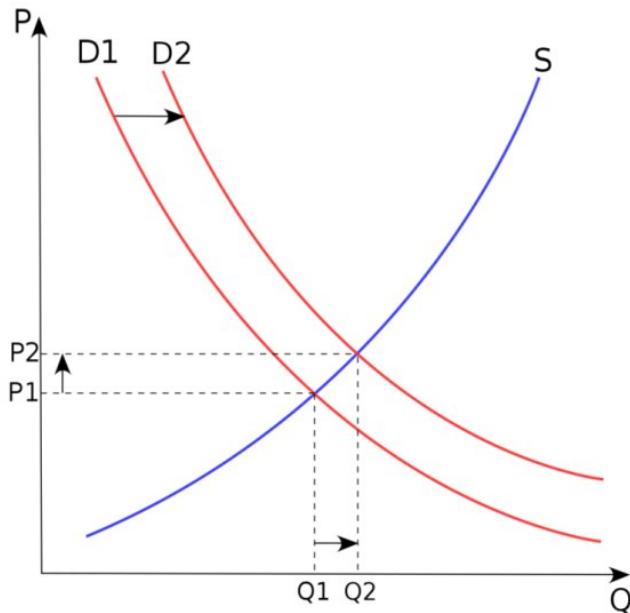
Therefore, the government may undertake production of certain goods in its hands. The rationing policy is also introduced to provide essential goods at reasonable price to the poor people. The government, thus, ensures social justice by its actions in the mixed economy.

c) What is demand curve? **Draw a demand curve from the demand function: $D = 16/p$**

Sol: The demand curve is a graphical representation of the relationship between the price of a good or service and the quantity demanded for a given period of time. In a typical representation, the price will appear on the left vertical axis, the quantity demanded on the horizontal axis.

The demand curve will move downward from the left to the right, which expresses the law of demand—as the price of a given commodity increases, the quantity demanded decreases, all else being equal.

Note that this formulation implies that price is the independent variable, and quantity the dependent variable. In most disciplines, the independent variable appears on the horizontal or x-axis, but economics is an exception to this rule.



2. a) What are the properties of a perfect competition market? Explain short run equilibrium of a firm under perfect competition.

Sol: A perfectly competitive market has several important characteristics:

- All producers contribute insignificantly to the market. Their own production levels do not change the supply curve.
- All producers are price takers. They cannot influence the market. If a firm tries to raise its price consumers would buy from a competitor with a lower price instead.
- Products are homogeneous. The characteristics of a good or service do not vary between suppliers.
- Producers enter and exit the market freely.
- Both buyers and sellers have perfect information about the price, utility, quality, and production methods of products.
- There are no transaction costs. Buyers and sellers do not incur costs in making an exchange of goods in a perfectly competitive market.
- Producers earn zero economic profits in the long run.

The short run means a period of time within which the firms can alter their level of output only by increasing or decreasing the amounts of variable factors such as labor and raw materials, while fixed factors like capital equipment, machinery etc. remain unchanged.

Identical cost conditions implies that all firms are facing same cost-conditions, that is, their average and marginal cost curves are of the same level and shapes. This would be so if the entrepreneurs of all firms are of equal efficiency and also the other factors of production used by them are perfectly homogeneous and are available to all of them at the same prices.

Under perfect competition, an individual firm is a price taker, that is, it has to accept the prevailing price as a given datum. It cannot influence the price by its individual action. As a result, demand curve or average revenue curve of the firm is a horizontal straight line (i.e., perfectly elastic) at the level of the prevailing price. Since perfectly competitive firm sells additional units of output at the same

price, marginal revenue curve coincides with average revenue curve. Marginal cost curve, as usual, is U-shaped.

Now, in order to decide about its equilibrium output, the firm will compare marginal cost with marginal revenue. It will be in equilibrium at the level of output at which marginal cost equals marginal revenue and marginal cost curve is cutting marginal revenue curve from below.

At this level it will be maximizing its profits. Since marginal revenue is the same as price (or average revenue) under perfect competition, the firm will equalise marginal cost with price to attain equilibrium output.

Consider Fig. 23.2 in which price OP is prevailing in the market. PL would then be the demand curve or the average and marginal revenue curve of the firm. It will be seen from Fig. 23.2 that marginal cost curve cuts average and marginal revenue curve at two different points, F and E.

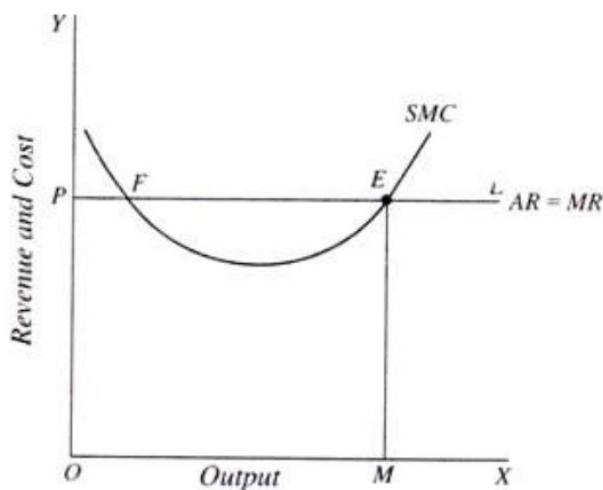


Fig. 23.2. Firm's Equilibrium under Perfect Competition

F cannot be the position of equilibrium, since at F second order condition of firm's equilibrium, namely, that marginal cost curve must cut marginal revenue curve from below at the point of equilibrium, is not satisfied. The firm will be increasing its profits by increasing production beyond F because marginal revenue is greater than marginal cost.

The firm will be in equilibrium at point E or output OM since at E marginal cost equals marginal revenue (or price) as well as marginal cost curve is cutting marginal revenue curve from below. As under perfect competition marginal revenue curve is a horizontal straight line, the marginal cost curve must be rising so as to cut the marginal revenue curve from below. Therefore, in case of perfect competition the second order condition of firm's equilibrium requires that marginal cost curve must be rising at the point of equilibrium.

Hence the twin conditions of firm's equilibrium under perfect competition are:

(1) $MC=MR = \text{Price}$

(2) MC curve must be rising at the point of equilibrium.

But the fulfillment of the above two conditions does not guarantee that the profits will be earned by the firm. In order to know whether the firm is making profits or losses and how much of them, average cost curve must be introduced in the figure. This has been done in Fig. 23.3 where SAC and SMC curves are short-run average cost and short-run marginal cost curves respectively.

Profit per unit of output is the difference between average revenue (price) and average cost. In Fig. 23.3, at the equilibrium output OM, average revenue is equal to ME, and average cost is equal to MF. Therefore, the profit per unit of output is EF the difference between ME and MF.

The total profits earned by the firm will be equal to EF (profit per unit) multiplied by OM or HF (total output). Thus, the total profits will be equal to the area HFEP. Because normal profits are included in average cost, the area HFEP indicates super-normal profits.

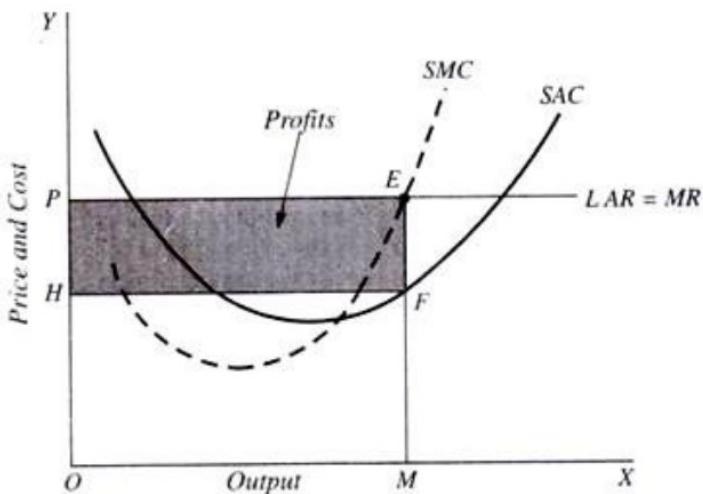


Fig. 23.3. Short-Run Equilibrium with Profits

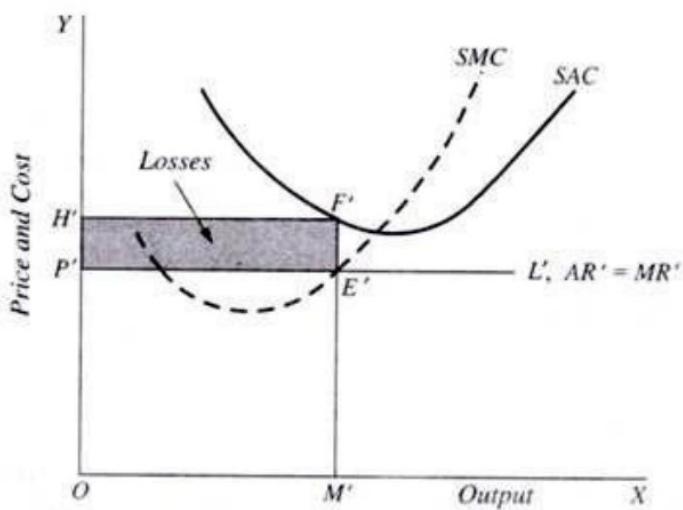


Fig. 23.4. Short-Run Equilibrium with Losses

Since we are assuming that all firms in the industry are working under same cost conditions and also for all of them price is OP, all will be earning super-normal profits equal to the area HFEP. Thus, while all firms in the industry will be in short-run equilibrium, but the industry will not be in equilibrium since there will be a tendency for the new firms to enter the industry to compete away the super-normal profits. But the short run is not a period long enough for the new firms to enter the industry.

The existing firms will therefore continue earning super-normal profits equal to HEFP in the short period. It is evident that in the situation depicted in Fig. 23.3 all firms will be in equilibrium at E and each will be producing OM output, but the tendency for the new firms to enter the industry will be present, though they cannot enter during the short period.

Now suppose that the prevailing market price of the product is such that the price line or average and marginal revenue curve lies below average cost curve throughout. This case is illustrated in Fig. 23.4 where the ruling price is OP' which is taken as given by the firm.

P' L' is the price line which lies below AC curve at all levels of output. The firm will be in equilibrium at point E at which marginal cost is equal to price (or marginal revenue) and marginal cost curve is rising. Firm would be producing OM' output but would be making losses, since average revenue (or price) which is equal to ME' is less than average cost which is equal to MF.

The loss per unit of output is equal to E'F' and total loss will be equal to P'E'F'FT which is the minimum loss that a firm can make under the given price-cost situation. Since all the firms are working under the same cost conditions, all would be in equilibrium at point E' or output OM' and every one will be making losses equal to P'E'F'H.

As a result, the firms will have a tendency to quit the industry in order to search for earning at least normal profits elsewhere. We thus see that at price OP' the firms will be in equilibrium at E' but there will be a tendency for firms to leave it through they cannot do so in the short period.

b) What is demand elasticity? **Find out elasticity at a point of a demand curve.**

Sol: Demand Elasticity: Demand elasticity is an economic measure of the sensitivity of demand relative to a change in another variable. The quantity demanded of a good or service depends on multiple factors, such as price, income, and preference. Whenever there is a change in these variables, it causes a change in the quantity demanded of the good or service. For example, when there is a relationship between the change in the quantity demanded and the price of a good or service, the elasticity is known as price elasticity of demand. The two other main types of demand elasticity are income elasticity of demand and cross elasticity of demand.

c) What do you mean by fixed cost-and variable cost?

Fixed costs remain constant for a specific period. These costs are often time-related, such as the monthly salaries or the rent.

For example, the rent of a building is a fixed cost that a small business owner negotiates with the landlord based the square footage needed for its operations. If the owner rents 10,000 square feet of space at \$40 a square foot for ten years, the rent will be \$40,000 per month for the next ten years, regardless of the profits or losses.

Variable costs change directly with the output – when output is zero, the variable cost will be zero. The total variable cost to a business is calculated by multiplying the total quantity of output with the variable cost per unit of output.

A common example of variable costs is operational expenses that may increase or decrease based on the business activity. A growing business may incur more operating costs such as the wages of part-time staff hired for specific projects or a rise in the cost of utilities – such as electricity, gas or water.

4. a) Prove that $APC > MPC$ in short run but $APC = MPC$ in long run.

APC is the ratio of consumption to income. It is the proportion of income that is consumed. It is worked out by dividing total consumption expenditure (C) by total income (Y). Symbolically,

$$APC = C/Y$$

MPC measures the response of consumption spending to a change in income. It is the ratio of change in consumption to a change in income. It is worked out by dividing the change in consumption by the change in income. Symbolically,

$$MPC = \Delta C / \Delta Y$$

The consumption function equation can be represented in terms of Fig. 3.6 where we measure income on the horizontal axis and planned consumption expenditure on the vertical axis. All points on the 45° line show that the values measured on the two axes are equal (i.e., $Y = C$). The line CC' is the consumption line which cuts the vertical axis at some positive point. Positive vertical intercept ($a > 0$) of the consumption function implies that planned consumption expenditure exceeds income at very low levels of income. The line CC' is upward rising.

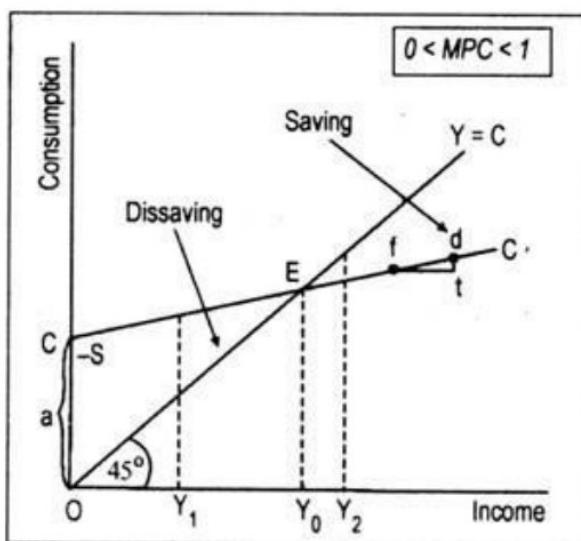


Fig. 3.6: Consumption Function

This means—as income rises, consumption rises. Such consumption is called

induced consumption. At an income level of OY_0 , CC' line coincides with the 45° line. That is to say, at point E income equals consumption. Such equality of income and consumption is called breakeven point. To the left of point E, say at OY_1 income level, as consumption exceeds income there occurs negative saving or dissaving. This means that people consume more than their income, i.e., they spend their past savings. Actually, to the left of point E, CC' line lies above the 45° line and to determine dissaving we have used -S sign in Fig. 3.6. On the other hand, to the right of E, i.e., at an income level of OY_2 , income exceeds consumption (and, hence, CC' line lies below the 45° line) and positive saving occurs. As people do not spend their entire income on consumption, the rest is saved.

One can determine APC and MPC from the position or the location of CC' line and slope of the CC' line, respectively. At zero income, $APC = \infty$. As income rises, APC declines but it never becomes zero. To determine the value of MPC, we have chosen two points f and d on the line CC' . As we move from f to d, income rises (ΔY) by 'ft' and consumption rises (AC) by 'dt'. Thus, $MPC = \Delta C / \Delta Y = dt / ft = \text{slope of the line } CC'$. Its value is less than unity since the rate of increase in consumption (dt) is less than the rate of increase in income (ft). As CC' is a straight line, MPC remains constant at all levels of income.

Though MPC remains constant as income rises, APC continuously declines on a straight line consumption function. This may be explained by examining Fig. 3.7. Let us consider point H on the line CC' . Corresponding to this point, income is OY and consumption is OM.

Thus, APC at point H is given by:

$$APC = OM / OY$$

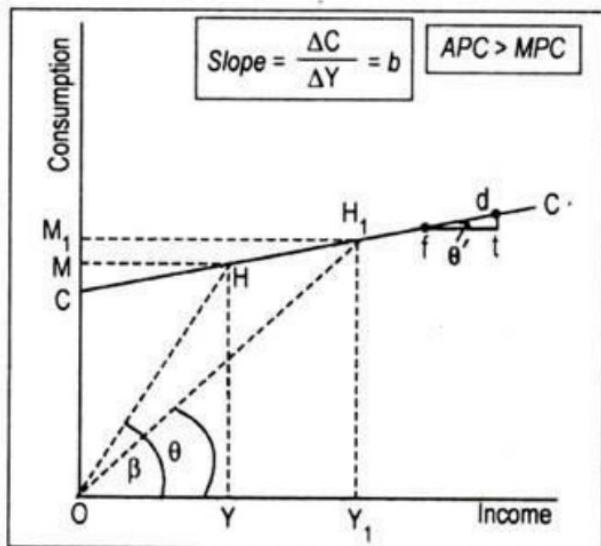


Fig. 3.7: APC Compared with MPC

Now consider the dashed lines β and θ drawn from the origin. Lines such as these are called rays. The slope of the ray P is equal to the tangent of the angle β and is, therefore, equal OM/OY . Thus, the slope of the ray to point H is the APC at point H. Similarly, the slope of the ray to point H_1 is the APC. In other words, the slope of the dashed lines OH and OH_1 represent APCs at points H and H_p respectively. Since the slope of the ray OH_1 is less steep than that of the slope of the ray OH , APC declines as income rises.

To calculate MPC, one must take into account the slope of the consumption line CC' between points, such as f and d, in Fig. 3.7. By inspection, we can see that $\tan \beta$ or $\tan \theta$ is greater than $\tan \theta'$. This suggests that $APC > MPC$. So, we can conclude that the coordinates at any point on a consumption line give us the value of APC and the slope between any two points gives us the value of MPC.

Consider Fig. 3.6 again. At zero income $APC = \infty$; to the left of point E, $APC > 1$; at point E, $APC = 1$; and to the right of point E, $APC < 1$. On the other hand, $0 < MPC < 1$. On a straight line consumption function, MPC remains constant at all levels of income. Thus, the Keynesian consumption function of the short run variety shows that $APC > MPC$.

We can prove this in the following way.

The equation of the linear consumption line

Is $C = a + bY$. From this equation, one obtains

$$APC = C/Y = a/Y + b$$

and $MPC = b$.

Thus, $APC > MPC$ by the amount.

Keynes' consumption function is a short run one and the relationship between consumption and income is a non-proportional one in the sense that $MPC < APC$.

However, a long run consumption function shows a proportional relationship between income and consumption. Because of this proportional relationship, $MPC = APC$. The long run consumption function starts from the origin. Its functional form is, thus, $C = bY$.

b) Show addition of MPC and MPS is one.

Sol: Since MPS is measured as ratio of change in savings to change in income, its value lies between 0 and 1. Also, marginal propensity to save is opposite of marginal propensity to consume. Mathematically, in a closed economy, $MPS + MPC = 1$, since an increase in one unit of income will be either consumed or saved.

c) Distinguish between GNP and NNP.

Basis	Gross national product	Net national product
1. Definition	GNP takes into account all the goods and services produced by the normal residents of a country both within the domestic territory as well as outside the country.	NNP refers to the value of all the final goods and services produced by the normal residents of a country both within the domestic territory as well as outside the country.
2. Depreciation	It includes depreciation.	It excludes depreciation.
3. Treatment as national income	GNP cannot be treated as national income.	NNP is treated as national income only at factor cost.

4. a) Distinguish between autonomous and Induced Investment.

Sol: Induced investment is that investment which is governed by income and amount of profit in return i.e. higher profit may lead to higher investment and vice versa. Autonomous investment is that investment which is independent of the level of income or profit and is not induced by any changes in the income. It is based on social investment gaining long term financial return and social good, it includes introduction of new techniques of production and resources.

“Induced Investment” is highly volatile, but its volatility is reduced by autonomous investments, which provides stability to the economy. The autonomous investment can be increased and decreased any time, notwithstanding the changes in income or profit. Since, the autonomous investment is not determined by consideration of profit and is determined by consideration of the social welfare earning long term social good to people. So, during the times of economic depressions, the governments try to boost the autonomous investment. Thus; autonomous investment is one of the key concepts in welfare economics.

Comparison Chart

BASIS FOR COMPARISON	AUTONOMOUS INVESTMENT	INDUCED INVESTMENT
Meaning	Autonomous investment is commonly linked with the determinants like new resources, population growth, increase in labor force, technological innovations, etc.	Induced investment is the type of investment which is associated with the current, income, output, sales and profit.
Figure	<p>A graph showing Investment on the vertical axis and Income on the horizontal axis. A horizontal red line represents the level of autonomous investment. Two vertical dashed lines from the x-axis intersect the horizontal line at two points, indicating that investment remains constant regardless of income levels.</p>	<p>A graph showing Investment on the vertical axis and Income on the horizontal axis. A red curve slopes upward from left to right, representing induced investment. Two vertical dashed lines from the x-axis intersect the curve at two points, showing that investment increases as income increases.</p>
Nature	Income Inelastic	Income-elastic
Relation with national income	Unrelated to national income	Positively related to national income
Influenced by	Exogenous Factors	Endogenous Factors
Demand	It affects the demand for goods and services.	It is influenced by the demand for goods and services.
Determined by	Social Welfare	Profit Motive
Investment Curve	Parallel to the X-axis	Slopes upwards to the right
Undertaken by	Public Authorities like Central, state or Local Self Government.	Private Individuals and Firms.

b) Define double counting problem of National Income accounting.

Double counting means counting of the value of the same product (or expenditure) more than once. How?

According to output method (an alternative method to value added method) of calculating national income, value of only final goods and services produced by all the production units of a country during a year should be counted. In other words, value of intermediate goods which enter into final goods (e.g., paper used in printing of books, raw cotton used in garments, wheat used in making bread, etc.) should not be taken into account.

But in actual practice, while taking value of final goods, value of intermediate goods also gets included because every producer treats the commodity he sells as final product irrespective of whether it is used as intermediate or final good. For instance, while taking value of final goods like cycles, the value of tyres, tubes, frames, bells, etc. (intermediate goods) used in manufacturing these cycles also gets included inadvertently

In this way certain items are counted more than once resulting in over-estimation of national product to the extent of the value of intermediate goods included. This is called the problem of double counting which means counting value of the same commodity more than once.

Take the example of the production of a product like Wacky Willy Stuffed Amigos. Stuffed Amigos have three primary material inputs or intermediate goods, fabric, thread and stuffing. The fabric is 100 per cent cotton, produced by Omni Textiles.

The thread is a cotton-polyester blend, produced by Mega Thread. And the stuffing is a gelatinous substance produced using soybean extract, graphite, and recycled newspapers by a firm called Ooze. In addition to these intermediate goods, The Wacky Willy Company also uses the four basic factors of production labor, capital, land, and entrepreneurship.

The expense of these resources in the production of stuffed amigos is not particularly important at the present. What is important is the market transactions for the intermediate goods. If the government added all market transactions, it would be overstating the value associated with the production of this stuffed amigo. If the government does this for all production, it would seriously over estimate the actual value of production during the year. It happens in income method also because national income estimate total economic activity, including GDP, gross national product, net national income, and adjusted national income. All are especially concerned with counting the total amount of goods and services produced within some boundary. The boundary is usually defined by geography or citizenship, and may also restrict the goods and services that are counted.

Double counting can be avoided. In order to avoid double or multiple counting, only final goods and services should be included in GDP. However, this should not be regarded as meaning that the farmer or the miller or the baker has not contributed anything to GDP. In fact, their contributions are already included in the value of the final product. Their individual contributions to GDP can be worked out by the, value added method which is the same as the value-of final product.

c) Discuss the causes of Inflation.

Sol: Inflation is a measure of the rate of rising prices of goods and services in an economy. If inflation is occurring, leading to higher prices for basic necessities such as food, it can have a negative impact on society.

Inflation can occur in nearly any product or service, including need-based expenses such as housing, food, medical care, and utilities, as well as want expenses, such as cosmetics, automobiles, and jewelry. Once inflation becomes prevalent throughout an economy, the expectation of further inflation becomes an overriding concern in the consciousness of consumers and businesses alike.

There are various factors that can drive prices or inflation in an economy. Typically, inflation results from an increase in production costs or an increase in demand for products and services.

Cost-Push Inflation:

It occurs when prices increase due to increases in production costs, such as raw materials and wages. The demand for goods is unchanged while the supply of goods declines due to the higher costs of production. As a result, the added costs of production are passed onto consumers in the form of higher prices for the finished goods.

One of the signs of possible cost-push inflation can be seen in rising commodity prices such as oil and metals since they're major production inputs. For example, if the price of copper rises, companies that use copper to make their products might increase the prices of their goods. If the demand for the product is independent of the demand for copper, the business will pass on the higher costs of raw materials to consumers. The result is higher prices for consumers without any change in demand for the products consumed.

Wages also affect the cost of production and are typically the single biggest expense for businesses. When the economy is performing well, and the unemployment rate is low, shortages in labor or workers can occur. Companies, in turn, increase wages to attract qualified candidates, causing production costs to rise for the company. If the company raises prices due to the rise in employee wages, cost-plus inflation occurs.

Natural disasters can also drive prices higher. For example, if a hurricane destroys a crop such as corn, prices can rise across the economy since corn is used in many products.

Demand-Pull Inflation:

It can be caused by strong consumer demand for a product or service. When there's a surge in demand for a wide breadth of goods across an economy, their prices tend to increase. While this is not often a concern for short-term imbalances of supply and demand, sustained demand can reverberate in the economy and raise costs for other goods; the result is demand-pull inflation.

Consumer confidence tends to be high when unemployment is low, and wages are rising—leading to more spending. Economic expansion has a direct impact on the level of consumer spending in an economy, which can lead to a high demand for products and services.

As the demand for a particular good or service increases, the available supply decreases. When fewer items are available, consumers are willing to pay more to obtain the item—as outlined in the economic principle of supply and demand. The result is higher prices due to demand-pull inflation.

Companies also play a role in inflation, especially if they manufacture popular products. A company can raise prices simply because consumers are willing to pay the increased amount. Corporations also raise prices freely when the item for sale is something consumers need for everyday existence, such as oil and gas. However, it's the demand from consumers that provides the corporations with the leverage to raise prices.

The Housing Market:

The housing market, for example, has seen its ups and downs over the years. If homes are in demand because the economy is experiencing an expansion, home prices will rise. The demand also impacts ancillary products and services that support the housing industry. Construction products such as lumber and steel, as well as the nails and rivets used in homes, might all see increases in demand resulting from higher demand for homes.

Expansionary Fiscal Policy

Expansionary fiscal policy by governments can increase the amount of discretionary income for both businesses and consumers. If a government cuts taxes, businesses may spend it on capital improvements, employee compensation, or new hiring. Consumers may purchase more goods as well. The government could also stimulate the economy by increasing spending on

infrastructure projects. The result could be an increase in demand for goods and services, leading to price increases.

Expansionary monetary policy by central banks can lower interest rates. Central banks like the Federal Reserve can lower the cost for banks to lend, which allows banks to lend more money to businesses and consumers. The increase in money available throughout the economy leads to more spending and demand for goods and services.

2017 Section B

5. (a) Define accounting. Describe the function of accounting.

→ Same as 2016, 5.(a)

(b) How can you use your knowledge as a computer science student?

→ Accounting provides us various types of knowledge that would be helpful for us. Many of computer sciences student may work as a Manager or work in administrative section of a company. Or they may act as a governing body of a company. So they would be making decision after reading the accounting data.

Accounting teaches them to read the accounting data. Moreover, if anyone wants to start a business, accounting knowledge helps them to keep things in track and make different decision. So it is very important for CSE students.

5. (c) State the rule for determining debit and credit.

Debit → when there is an increase in asset or it in expense account, it is recorded as debit.

A/c receivable, Supply, Equipment, cash and all other current and non-current assets are known as debit

accounts. Again decrease in Owners Equity or liabilities are also known as debit. For example, decrease in A/c payable is recorded as debit. Decrease in capital, Revenue ~~eventually~~ decreases the owners equity which eventually decreases are recorded as debit.

For credit Accounts, increase in owners equity, Liabilities is recorded. If there is an increase in loan, notes payable, A/c payable, it would increase credit balance. Revenue and capitals are also recorded as credit because it ~~is~~ has to be paid to the owners. On the other hand, decrease in Assets is known as credit balance.

5. (d) Define accounting equation:

According to Accounting

$$\text{Asset} = \text{Liabilities} + \text{Owner's equity}$$

This equation is called accounting equation.

The left side of the equation has Asset. Asset is any kind of resource owned and controlled by the organization to create future benefit. There are different type of Asset. For example: current and non-current assets. Current Assets are short term assets. These things are convertible into cash within a financial year.

These assets are the asset assets which company needs to run its day to day operation and pay its current expenses. Example: Cash, A/c receivable, Prepaid Expenses,

Inventory, etc.

Non current assets are long term assets. These are required for long term need. Example: Land, Property, Goodwill.

Liabilities are those accounts which needs to be paid by the company. Liabilities account includes A/c payable, Loan, Notes payable, debt, etc. It is a responsibility for an organization to pay its liabilities.

Owner's equity is owner's claim to the company. This account includes Capitals, Revenues and other income of the company.

At the end of the year asset must be equal to the sum of Liabilities and owner's equity

6.(a)

	Assets	Liabilities	Owner's Equity
Dates	Cash A/c Receivable, Supplies Equipment A/c Payable Capital Revenue Expense		
01	1,00,000	50,000	1,50,000
2	-20,000	20,000	
3	16,000	16,000	
5	12,000		12,000
6		2500	-2500
10	15,000	26,000	35,000
15	-6,000		-6,000
15	-9,000		-9,000
15	-2,000		-2,000
17	-2,500		
20	6,000	-6,000	
25	-10,000		-10,000
Total	<u>83,500</u>	<u>14,000</u>	<u>16,000</u>
	<u>16,000</u>	<u>70,000</u>	<u>15,000</u>
	<u>16,000</u>	<u>15,000</u>	<u>47,000</u>
			<u>-29,500</u>

183500

183500

6. (b) what is accounting cycle?

→ same as 2016, Q5(b) of question paper

7. (a) What is ledger? Why ledger is called King of

all books?

→ 7(b), 2016 Ans

7. (b)

Ledger book

Cash (Ref 1)

Debit				Credit			
Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
01	Capital	2	100,000	12.	Prepaid Insurance	5	3600
22.	Revenue	7	20,000	24.	A/C payable	4	5000
26	Unearned Service Revenue	8	7000	30.	Salary Expn	9	4000
			<u>127000</u>	30.	Balance c/d		<u>115400</u>
1 May	Balance b/d		<u>115400</u>				<u>127000</u>

Capital (Ref 2)

Debit				Credit			
Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
30.	Balance c/d		<u>10,00,000</u>	01.	Cash	1	<u>10,00,000</u>
			<u>10,00,000</u>				<u>10,00,000</u>
1 May	Balance b/d		<u>10,00,000</u>				<u>10,00,000</u>

Advertiser Expense (Ref 3)

Debit				Credit			
Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
8.	A/C Payable	4	5000		Balance c/d		5000
			<u>5000</u>				<u>5000</u>
1 May	Balance b/d		5000				

Prepaid insurance (Ref 5)

Debit				Credit			
Date	Particulars	Ref	Amount	Date	Particulars	Ref	Amount
12.	Cash	1	3600	30.	Balance c/d		3600
			<u>3600</u>				<u>3600</u>
1 May	Balance b/d		3600				

A/C Payable (Ref 4)

Date	Debit Particulars	Ref	Amount	Date	Credit Particulars	Ref	Amount
24.	② Cash	1	5000	8.	Advertisement Exp.	③	5000
			<u>5000</u>				<u>5000</u>

A/C Receivable (Ref 6)

Date	Debit Particulars	Ref	Amount	Date	Credit Particulars	Ref	Amount
21	Revenue	16	15,000	30-	Balance c/d	16	15000
			<u>15000</u>				<u>15000</u>
	Balance b/d		15,000		b/d 2019		15,000

Revenue (Ref 7)

Date	Debit Particulars	Ref	Amount	Date	Credit Particulars	Ref	Amount
30.	Balance c/d	11	35000	21.	A/C Receivable	16	15000
			<u>35000</u>		cash		<u>20,000</u>
	b/d 2019		35,000		Balance b/d		<u>35000</u>

Unearned Service Revenue (Ref 8)

Date	Debit Particulars	Ref	Amount	Date	Credit Particulars	Ref	Amount
30.	Balance c/d		7000	26.	Cash	11	7000
			<u>7000</u>				<u>7000</u>
				1 May	Balance b/d		7000

Salary Expense (Ref 9)

Date	Debit Particulars	Ref	Amount	Date	Credit Particulars	Ref	Amount
30.	Cash	1	4000		Balance b/d		4000
			<u>4000</u>				<u>4000</u>
	Balance b/d		4000		b/d 2019		4000

8. The following information are taken from the books of Junaed Enterprise. At the end of the year 2016, Trial Balance before adjustment shows the following:

Junaed Enterprise
Trial Balance, December 31, 2016

Account Titles	Debit (Tk)	Credit (Tk)
Cash	6,000	
Accounts Receivable	30,000	
Insurance Expense	9,000	
Inventory 1-1-16	20,000	
Equipment	55,000	
Investment	15,000	
Purchases	75,000	
Sales		90,000
Service Revenue		35,000
Junaed, Capital		97,500
Junaed, Drawing	15,000	
Notes Payable		23,500
Supplies Expense	4,500	
Salaries Expense	15,000	
Utilities Expense	1,500	
Total Tk.	2,46,000	2,46,000

Adjustment data:

- i) Ending inventories valued at Tk. 12,000.
- ii) Supplies consumed during the year 3,000.
- iii) Salaries are payable @ Tk. 2,500 per month.
- iv) Insurance premium has been unexpired Tk. 4,500.

Instructions:

- i) Prepare a statement of comprehensive income for the year ended 31st December, 2016.
- ii) Prepare owner's Equity statement.
- iii) Prepare statement of Financial Position as on 31st December, 2016.

Answer:

Adjustment Journal Entry(এক্সামে লিখতে হইবে না)

Particulars	Reference	Debit	Credit
Inventory Expense		8000	
Inventory			8000
Supply Expense		3000	
Supply			3000
Salary Exp.		2500*12=	
A/C Payable		30000	30000
Insurance Exp.		4500	
Insurance			4500

Junaed Enterprise

Statement of Comprehensive Income

For the year ended on December 31, 2016

Particulars	Amount	Amount
Sales Revenue	90,000	
Service Revenue	<u>35,000</u>	
Gross Profit		1,25,000
Operating ,Selling and Administrative Expense:		
Insurance Expense (9000+4500)	13500	
Supply Expense (4500+3000)	7500	
Salary Expense (15000+30000)	45000	
Utilities Expense .	1500	
Inventory Expense	<u>8000</u>	
Total Expense		<u>75500</u>
Net Profit		<u>49500</u>

Junaed Enterprise

Statement of Owner's Equity

For the year ended on December 31, 2016

Particulars	Amount	Amount
Capital	97,500	
Less Drawings	<u>15,000</u>	
Add Net Profit		82500
Owner's Equity		<u>49500</u>
		<u>132000</u>

Junaed Enterprise

Statement of Financial Position

For the year ended on December 31, 2016

Particulars	Amount	Amount
Asset:		
Cash	6000	
A/C Receivable	30000	
Inventory (20000-8000)	12000	
Equipment	55000	
Investment	15000	
Purchase	75000	
Less Supply	4500	
Less Insurance	<u>3000</u>	
Total Asset		185500
Liabilities and Owner's Equity:		
Notes Payable	23500	
Salary Payable	<u>30000</u>	
Total Liabilities		53500
Owner's Equity		<u>132000</u>
Total Liabilities and Owners Equity		<u>185500</u>