

# Kerala Board Class 12 2026 Economics Question Paper with Solutions

Time Allowed :2 Hours

Maximum Marks :80

Total questions :30

## General Instructions

Read the following instructions very carefully and strictly follow them:

1. The paper is divided into Section A and Section B.
2. Section A includes objective-type questions.
3. All questions in Section A are compulsory.
4. Section B includes short answer, and long answer type questions.
5. Answers must be written legibly within the word limit.
6. Use of unfair means or electronic devices is prohibited.
7. Follow the correct format and instructions for each section.

## Section - A

### 1. Goods that are used by producers as inputs

- (A) Final goods
- (B) Consumer goods
- (C) Intermediate goods
- (D) None of these

**Correct Answer:** (C) Intermediate goods

**Solution:**

**Step 1:** Understanding the types of goods.

Goods used by producers as inputs are known as intermediate goods. These goods are used in the production process to create other goods, and they are not considered final products.

**Step 2:** Explanation of options.

- **(A) Final goods:** Incorrect. Final goods are goods that have completed the production process and are ready for consumption or investment. They are not used by producers as inputs.
- **(B) Consumer goods:** Incorrect. Consumer goods are goods purchased by individuals for personal use and are not used in the production process.
- **(C) Intermediate goods:** Correct. Intermediate goods are used by producers as inputs to produce final goods or services.
- **(D) None of these:** Incorrect. As stated, intermediate goods are the correct category for goods used as inputs by producers.

**Step 3: Conclusion.**

Thus, the correct answer is (C) Intermediate goods, as they are used by producers in the production process.

**Final Answer:** Intermediate goods.

**Quick Tip**

Intermediate goods play a crucial role in the production process, as they are transformed into final goods through manufacturing or assembly.

---

**2. When income increases, the budget line shifts towards**

- (A) Left
- (B) Right
- (C) Downwards
- (D) None of these

**Correct Answer:** (B) Right

**Solution:**

**Step 1: Understanding the budget line.**

A budget line shows the combinations of two goods that a consumer can afford given their income and the prices of those goods.

**Step 2: Effects of income on the budget line.**

When income increases, the consumer can afford more of both goods. This causes the budget line to shift outward, towards the right.

**Step 3: Comparison with other options.**

- **(A) Left:** Incorrect. A budget line shifts left when income decreases.
- **(B) Right:** Correct. An increase in income causes the budget line to shift right, reflecting the consumer's increased purchasing power.
- **(C) Downwards:** Incorrect. Income changes do not cause the budget line to shift downward.
- **(D) None of these:** Incorrect. Option (B) is the correct answer.

**Step 4: Conclusion.**

Therefore, when income increases, the budget line shifts towards the right.

**Final Answer:** Right.

**Quick Tip**

An increase in income results in the outward shift of the budget line, indicating that the consumer can now afford more of both goods.

---

**3. The point on which a firm earns only normal profit in the short run**

- (A) Shutdown point
- (B) Excess supply
- (C) Break even point
- (D) Excess demand

**Correct Answer:** (C) Break even point

**Solution:**

### Step 1: Understanding normal profit.

Normal profit is the minimum profit required to keep a firm in business. It occurs when a firm's total revenue equals its total cost, including the opportunity cost of the entrepreneur's time and resources.

### Step 2: Explanation of options.

- **(A) Shutdown point:** Incorrect. The shutdown point is where a firm covers its variable costs but not its fixed costs. It does not earn normal profit.
- **(B) Excess supply:** Incorrect. Excess supply occurs when the quantity supplied exceeds the quantity demanded, which is not directly related to normal profit.
- **(C) Break even point:** Correct. At the break-even point, the firm's total revenue equals its total cost, meaning the firm earns zero economic profit, or normal profit.
- **(D) Excess demand:** Incorrect. Excess demand occurs when the quantity demanded exceeds the quantity supplied, not directly related to normal profit.

### Step 3: Conclusion.

The correct answer is (C) Break even point because at this point, the firm earns normal profit, and its total revenue equals its total cost.

**Final Answer:** Break even point.

#### Quick Tip

The break-even point is crucial in determining when a firm covers all its costs, including the opportunity cost of resources.

---

#### 4. Want satisfying capacity of a commodity

- (A) Demand
- (B) Supply
- (C) Production
- (D) Utility

**Correct Answer:** (D) Utility

**Solution:**

**Step 1: Understanding satisfaction in economics.**

The satisfying capacity of a commodity refers to how well it meets the needs or desires of consumers. This is primarily related to the utility a commodity provides.

**Step 2: Explanation of options.**

- **(A) Demand:** Incorrect. Demand refers to the quantity of a commodity that consumers are willing and able to purchase at various prices, but it does not directly relate to the satisfaction or utility provided.
- **(B) Supply:** Incorrect. Supply refers to the quantity of a commodity that producers are willing and able to produce and sell, not to the satisfaction or utility of consumers.
- **(C) Production:** Incorrect. Production refers to the process of creating goods and services, but it does not directly refer to the satisfaction or utility derived from those goods.
- **(D) Utility:** Correct. Utility refers to the satisfaction or pleasure derived from consuming a commodity, which represents its satisfying capacity.

**Step 3: Conclusion.**

The correct answer is (D) Utility, as it is directly related to the satisfaction a commodity provides to consumers.

**Final Answer:** Utility.

#### Quick Tip

Utility is a key concept in economics, representing the satisfaction or pleasure derived from consuming goods or services.

---

**5. The year in which J.M. Keynes published his book 'The General Theory of Employment, Interest and Money'.**

- (A) 1936
- (B) 1930
- (C) 1945
- (D) 1929

**Correct Answer:** (A) 1936

**Solution:**

**Step 1: Understanding the publication of Keynes' book.**

John Maynard Keynes published his influential book "The General Theory of Employment, Interest and Money" in 1936. This work revolutionized economic thought, especially in the context of macroeconomics and the role of government in managing the economy.

**Step 2: Evaluation of options.**

- **(A) 1936:** Correct. The book was indeed published in 1936.
- **(B) 1930:** Incorrect. This was too early, and Keynes had not yet written this work.
- **(C) 1945:** Incorrect. This was after the publication of the book.
- **(D) 1929:** Incorrect. The book was published after this year, not before.

**Step 3: Conclusion.**

Thus, the correct year for the publication of "The General Theory" is 1936.

**Final Answer:** 1936.

**Quick Tip**

Keynes' "The General Theory" was a pivotal work in macroeconomics, published in 1936, and laid the foundation for much of modern economic thought.

---

**6. The consumption that takes place when income is zero. It is called**

- (A) Autonomous consumption
- (B) Induced consumption

(C) Autonomous investment

(D) None of these

**Correct Answer:** (A) Autonomous consumption

**Solution:**

**Step 1: Defining autonomous consumption.**

Autonomous consumption refers to the consumption that occurs even when income is zero. This type of consumption is usually financed by savings or borrowing, and it represents the baseline level of consumption in an economy.

**Step 2: Explanation of induced consumption.**

Induced consumption refers to the consumption that changes as income changes. As income increases, induced consumption also increases. This is not the consumption that occurs when income is zero.

**Step 3: Comparison with other options.**

- **(A) Autonomous consumption:** Correct. This is consumption that takes place even when income is zero.
- **(B) Induced consumption:** Incorrect. This consumption occurs as a result of an increase in income, not when income is zero.
- **(C) Autonomous investment:** Incorrect. This term refers to investment that occurs without regard to income levels.
- **(D) None of these:** Incorrect. Option (A) is the correct answer.

**Step 4: Conclusion.**

Therefore, the consumption that takes place when income is zero is termed autonomous consumption.

**Final Answer:** Autonomous consumption.

#### Quick Tip

Autonomous consumption is essential for understanding the baseline consumption levels in an economy, especially in Keynesian economics.

---

**7. A garment factory replaces 50 workers with some machines to reduce the costs of production. Which central problem of an economy is being added in the statement?**

- (A) What to produce
- (B) How to produce
- (C) What quantities to produce
- (D) For whom to produce

**Correct Answer:** (B) How to produce

**Solution:**

**Step 1: Understanding the central economic problems.**

The central problems of an economy revolve around how to allocate scarce resources effectively to meet unlimited wants. This includes determining what to produce, how to produce, and for whom to produce.

**Step 2: Explanation of options.**

- **(A) What to produce:** Incorrect. This refers to deciding which goods and services should be produced in the economy. The statement does not focus on the choice of goods.
- **(B) How to produce:** Correct. The replacement of workers with machines is an example of determining how to produce goods more efficiently and cost-effectively.
- **(C) What quantities to produce:** Incorrect. This focuses on the amount of goods to be produced, which is not the main issue discussed in the statement.
- **(D) For whom to produce:** Incorrect. This relates to deciding who will receive the goods and services, which is not addressed in the scenario.

**Step 3: Conclusion.**

Thus, the correct answer is (B) How to produce, as the focus is on the method of production, specifically through the use of machines.

**Final Answer:** How to produce.

### Quick Tip

The "How to produce" problem in economics deals with the methods or processes used in production, such as the choice between labor or capital-intensive techniques.

## 8. Which of the following cost curve is a rectangular hyperbola?

- (A) Total Variable Cost (TVC)
- (B) Average Variable Cost (AVC)
- (C) Total Fixed Cost (TFC)
- (D) Average Fixed Cost (AFC)

**Correct Answer:** (A) Total Variable Cost (TVC)

### Solution:

#### Step 1: Understanding the concept of a rectangular hyperbola.

A rectangular hyperbola is a type of curve where the product of two variables is constant. In cost theory, the total variable cost (TVC) curve is shaped like a rectangular hyperbola under certain conditions.

#### Step 2: Explanation of options.

- **(A) Total Variable Cost (TVC):** Correct. The TVC curve is a rectangular hyperbola, where the total variable cost increases as output increases, and the curve exhibits this characteristic.
- **(B) Average Variable Cost (AVC):** Incorrect. The AVC curve is U-shaped, not a rectangular hyperbola.
- **(C) Total Fixed Cost (TFC):** Incorrect. The TFC curve is a horizontal line because total fixed costs do not change with output.
- **(D) Average Fixed Cost (AFC):** Incorrect. The AFC curve decreases as output increases, but it is not a rectangular hyperbola.

#### Step 3: Conclusion.

The correct answer is (A) Total Variable Cost (TVC), as it follows the shape of a rectangular hyperbola in cost analysis.

**Final Answer:** Total Variable Cost (TVC).

#### Quick Tip

The rectangular hyperbola shape of the TVC curve is a result of the relationship between total variable cost and output, with the product remaining constant.

---

### 9. The situation where market supply equals market demand is called

- (A) Excess demand
- (B) Excess supply
- (C) Deficient demand
- (D) Market equilibrium

**Correct Answer:** (D) Market equilibrium

#### Solution:

##### **Step 1:** Understanding market equilibrium.

Market equilibrium occurs when the quantity of goods supplied equals the quantity of goods demanded at a particular price. At this point, there is no tendency for the price to change unless an external factor affects supply or demand.

##### **Step 2:** Evaluation of options.

- **(A) Excess demand:** Incorrect. Excess demand occurs when demand exceeds supply, leading to upward pressure on prices.
- **(B) Excess supply:** Incorrect. Excess supply happens when supply exceeds demand, leading to downward pressure on prices.
- **(C) Deficient demand:** Incorrect. This term is not used to describe market conditions at equilibrium.

- **(D) Market equilibrium:** Correct. This is the situation where market supply equals market demand.

**Step 3: Conclusion.**

Thus, when market supply equals market demand, the situation is called market equilibrium.

**Final Answer:** Market equilibrium.

**Quick Tip**

In economics, market equilibrium is achieved when the quantity supplied equals the quantity demanded at a given price, ensuring there is no pressure for the price to change.

---

**10. An individual unit who takes decisions relating to its own consumption is**

- (A) Household
- (B) Firm
- (C) Government
- (D) External sector

**Correct Answer:** (A) Household

**Solution:**

**Step 1: Understanding the individual unit.**

In economics, the household is the basic unit that makes consumption decisions, as they decide how to allocate their income to purchase goods and services.

**Step 2: Explanation of other options.**

- **(A) Household:** Correct. Households are the individual decision-makers that determine consumption based on their income.
- **(B) Firm:** Incorrect. Firms make production decisions, not consumption decisions.
- **(C) Government:** Incorrect. The government makes decisions about fiscal and monetary policies, not individual consumption.

- **(D) External sector:** Incorrect. The external sector refers to international trade and investment, not individual consumption decisions.

**Step 3: Conclusion.**

Thus, the individual unit that takes decisions related to its own consumption is the household.

**Final Answer:** Household.

**Quick Tip**

Households are the key economic agents responsible for consumption decisions, while firms focus on production and governments make policy decisions.

---

**Section - B**

**11. What is GDP deflator? Distinguish between Real GDP and Nominal GDP.**

**Solution:**

**Step 1: Define GDP Deflator.**

The GDP deflator is a measure of the level of prices of all new, domestically produced, final goods and services in an economy. It is calculated by dividing nominal GDP by real GDP and multiplying by 100. The GDP deflator helps to adjust for inflation or deflation in the economy.

**Step 2: Explain Real GDP.**

Real GDP is the total value of all final goods and services produced within a country's borders, adjusted for inflation. This measure gives a more accurate reflection of an economy's size and performance over time, as it accounts for price changes.

**Step 3: Explain Nominal GDP.**

Nominal GDP is the total value of all final goods and services produced within a country's borders, measured at current market prices. It does not adjust for inflation, and as such, may overstate or understate the actual growth in an economy.

**Step 4: Highlight the Difference.**

The main difference between Real GDP and Nominal GDP is that Real GDP is adjusted for inflation, while Nominal GDP is not. This makes Real GDP a better indicator of the true economic growth of a country over time.

### Quick Tip

Remember:  $\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$ . Real GDP adjusts for inflation, while Nominal GDP does not.

**12. The market price of a good increases from Rs. 10 to Rs. 25. Therefore, the quantity supplied by the firm increases from 15 to 20 units. Calculate the price elasticity of supply.**

**Solution:**

**Step 1: Formula for Price Elasticity of Supply.**

The formula for Price Elasticity of Supply (PES) is given by:

$$PES = \frac{\% \text{ Change in Quantity Supplied}}{\% \text{ Change in Price}}$$

**Step 2: Calculate Percentage Change in Quantity Supplied.**

The initial quantity supplied is 15 units, and the final quantity supplied is 20 units. The percentage change in quantity supplied is:

$$\% \text{ Change in Quantity Supplied} = \frac{20 - 15}{15} \times 100 = \frac{5}{15} \times 100 = 33.33\%$$

**Step 3: Calculate Percentage Change in Price.**

The initial price is Rs. 10, and the final price is Rs. 25. The percentage change in price is:

$$\% \text{ Change in Price} = \frac{25 - 10}{10} \times 100 = \frac{15}{10} \times 100 = 150\%$$

**Step 4: Calculate Price Elasticity of Supply.**

Now, substitute the values into the formula for PES:

$$PES = \frac{33.33\%}{150\%} = 0.222$$

### Quick Tip

Price Elasticity of Supply (PES) measures how responsive the quantity supplied is to a change in price. A PES value greater than 1 indicates elastic supply, while less than 1 indicates inelastic supply.

---

### 13. What are the central problems of an economy in relation to scarce resources?

#### Solution:

#### Step 1: Define the central problem of an economy.

The central problems of an economy arise due to the scarcity of resources. Scarcity refers to the fact that resources are limited, while human wants are unlimited. Therefore, economies face the problem of allocating resources to satisfy the most urgent and important needs.

#### Step 2: Discuss the three basic economic problems.

These central problems include: 1. What to produce? Deciding which goods and services should be produced based on the available resources. 2. How to produce? Deciding the method of production, i.e., which combination of resources should be used for production. 3. For whom to produce? Deciding who will get the goods and services produced, considering the distribution of wealth and income.

#### Step 3: Conclusion.

These three basic questions arise due to limited resources, and every economy must address them to ensure efficient allocation of resources.

### Quick Tip

Scarcity forces economies to make choices, which is why the central economic problems are fundamental to all societies.

---

### 14. If investment increases by 200 crores and MPC is 0.2, what will be the increase in total income?

#### Solution:

**Step 1: Recall the formula for the multiplier.**

The income multiplier can be calculated using the formula:

$$\text{Multiplier} = \frac{1}{1 - \text{MPC}}$$

where MPC is the Marginal Propensity to Consume.

**Step 2: Apply the given values.**

Here, MPC is given as 0.2. Therefore, the multiplier is:

$$\text{Multiplier} = \frac{1}{1 - 0.2} = \frac{1}{0.8} = 1.25$$

**Step 3: Calculate the increase in income.**

The increase in income is calculated by multiplying the increase in investment by the multiplier:

$$\text{Increase in income} = \text{Multiplier} \times \text{Increase in investment}$$

Substituting the values:

$$\text{Increase in income} = 1.25 \times 200 = 250 \text{ crores}$$

**Step 4: Conclusion.**

Thus, the total increase in income will be 250 crores.

**Quick Tip**

Remember: The income multiplier formula is  $\frac{1}{1-\text{MPC}}$ . A higher MPC leads to a larger multiplier and greater income change.

---

**15. Explain the three types of budget.**

**Solution:**

**Step 1: Define a Budget.**

A budget is a financial plan that outlines expected income and expenditures over a specific period. It helps in allocating resources and managing finances efficiently.

**Step 2: Types of Budgets.**

There are three main types of budgets:

- **Balanced Budget:** In this budget, the total expenditures are equal to the total income. It ensures that the government or organization does not face a deficit or surplus.
- **Surplus Budget:** A surplus budget occurs when the total income exceeds total expenditures. It indicates a positive financial situation, where extra funds are available for future investments or savings.
- **Deficit Budget:** A deficit budget arises when the total expenditures exceed total income. It means the government or organization is borrowing to cover the gap between income and expenses.

### Step 3: Conclusion.

These three types of budgets help governments and organizations plan and manage their finances effectively, ensuring proper allocation of resources and sustainable economic growth.

#### Quick Tip

Remember: A balanced budget is ideal for long-term financial stability, while surplus and deficit budgets reflect differing economic conditions.

---

### 16(a). What are the features of perfect competition?

#### Solution:

#### Step 1: Define perfect competition.

Perfect competition refers to a market structure where numerous small firms compete against each other, and no single firm has the power to influence the market price. It represents an idealized form of market structure.

#### Step 2: State the features of perfect competition.

The main features of perfect competition include: 1. Large number of buyers and sellers: There are many buyers and sellers, each of whom is a price taker. 2. Homogeneous products: The products offered by different firms are identical, and consumers cannot differentiate between them. 3. Free entry and exit: Firms can enter or leave the market without any

barriers. 4. Perfect knowledge: Buyers and sellers have complete knowledge about prices and products. 5. No government interference: The market operates without government control or regulation. 6. Perfect mobility of resources: Factors of production can move freely within the market.

#### Quick Tip

Remember: In perfect competition, firms are price takers, and there is no single firm that can influence the market price.

---

**(b). Explain the conditions required for profit maximization of a perfectly competitive firm in short run.**

**Solution:**

**Step 1: Define profit maximization.**

Profit maximization occurs when a firm's total revenue exceeds its total cost by the greatest possible amount.

**Step 2: Conditions for profit maximization.**

The conditions for profit maximization of a perfectly competitive firm in the short run are: 1. Marginal Cost (MC) equals Marginal Revenue (MR): In perfect competition, a firm maximizes profit when  $MC = MR$ . At this point, the firm is producing the optimal quantity of output. 2. MC curve must be rising: The firm must be producing at the point where the MC curve is rising and intersects the MR curve. 3. Average Cost (AC) curve behavior: For the firm to earn maximum profit, the price (which is equal to MR in perfect competition) should be above the AC curve. If the price is below the AC curve, the firm incurs losses. If the price equals the AC curve, the firm breaks even. 4. No loss condition: If the firm is producing at the point where  $MC = MR$  and the price is above the AC curve, the firm is maximizing its short-run profit.

### Quick Tip

In perfect competition, profit maximization is achieved when  $MC = MR$ . If this condition is not met, the firm should adjust its output level.

---

#### 17(a). Explain the functions of central bank.

##### Solution:

##### Step 1: Define a central bank.

A central bank is the financial institution that manages a nation's monetary system. It is responsible for regulating and overseeing the country's banking and financial systems.

##### Step 2: Discuss the primary functions of a central bank.

The functions of a central bank include: 1. **Monetary Policy Control:** The central bank controls the money supply in the economy through tools like interest rates, open market operations, and reserve requirements. 2. **Issuer of Currency:** The central bank is responsible for issuing the nation's currency and ensuring its stability. 3. **Lender of Last Resort:** It provides emergency funding to commercial banks during times of financial crisis to maintain the stability of the banking system. 4. **Banker's Bank:** The central bank serves as the bank for commercial banks, holding reserves and facilitating inter-bank transactions. 5. **Government's Banker:** It manages the government's accounts, facilitates public debt management, and supports the government's financial operations.

### Quick Tip

Central banks control the economy's money supply, act as a lender to other banks, and are responsible for maintaining financial stability.

---

#### (b). Explain the quantitative and qualitative instruments used by the central bank to control the money supply in the economy.

##### Solution:

### Step 1: Define quantitative and qualitative instruments.

Quantitative and qualitative instruments are tools used by central banks to control the money supply, inflation, and the overall health of the economy.

### Step 2: Discuss quantitative instruments.

Quantitative instruments directly affect the total money supply in the economy. These include: 1. **Open Market Operations (OMO):** The buying and selling of government securities in the open market to control the money supply. 2. **Cash Reserve Ratio (CRR):** The percentage of a bank's total deposits that must be kept with the central bank. Increasing the CRR reduces the money supply, while decreasing it increases the money supply. 3. **Statutory Liquidity Ratio (SLR):** The percentage of a commercial bank's net demand and time liabilities that it must maintain in the form of liquid assets like gold, cash, or government securities.

### Step 3: Discuss qualitative instruments.

Qualitative instruments influence the types of loans and the behavior of banks but do not directly affect the total money supply. These include: 1. **Credit Rationing:** Limiting the amount of credit available to certain sectors of the economy to control inflation. 2. **Moral Suasion:** The central bank uses persuasion to influence commercial banks to behave in a manner that is consistent with monetary policy goals. 3. **Direct Action:** The central bank may directly influence banks by enforcing regulations such as imposing limits on lending or requiring certain banks to improve their capital reserves.

#### Quick Tip

Quantitative instruments directly control the money supply, while qualitative instruments regulate the flow and use of credit within the economy.

---

**18. A firm's capital at the beginning of the year is 10 crores and new investment during the year is 3 crores. Identify the stock and flow variables in the statement.**

**Solution:**

**Step 1: Define Stock and Flow Variables.**

In economics, a stock variable is one that is measured at a particular point in time, whereas a flow variable is one that is measured over a period of time.

**Step 2: Identify the Stock Variable.**

The capital of the firm at the beginning of the year is 10 crores. This is a stock variable because it represents the total capital accumulated at a specific point in time (at the beginning of the year).

**Step 3: Identify the Flow Variable.**

The new investment during the year is 3 crores. This is a flow variable because it represents the change in capital over a period (the year).

**Quick Tip**

Stock variables refer to quantities measured at a specific point in time, while flow variables refer to quantities measured over a period of time.

---

**19. List the components of aggregate demand in a two-sector economy.**

**Solution:**

**Step 1: Define Aggregate Demand.**

Aggregate demand refers to the total demand for goods and services in an economy at a given overall price level and in a given period.

**Step 2: Components of Aggregate Demand in a Two-Sector Economy.**

In a two-sector economy, the components of aggregate demand are:

- **Consumption (C):** The total spending by households on goods and services.
- **Investment (I):** The total spending by firms on capital goods such as machinery, factories, and equipment.

**Step 3: Conclusion.**

In a two-sector economy, aggregate demand is simply the sum of consumption and investment:

$$AD = C + I$$

### Quick Tip

In a two-sector economy, there are only two components of aggregate demand: consumption and investment.

---

**20. List any three factors which leads to rightward shift of the supply curve of a firm.**

**Solution:**

**Step 1: Define supply curve shift.**

A rightward shift in the supply curve indicates an increase in supply, meaning firms are willing to supply more goods at each price level.

**Step 2: List the factors.**

The three main factors that lead to a rightward shift of the supply curve include: 1. **Decrease in Input Prices:** When the cost of inputs (such as raw materials, labor, etc.) decreases, firms are able to produce more at the same price, increasing supply. 2. **Technological Advancements:** Improvements in technology lead to more efficient production, allowing firms to produce more output at lower costs, thus increasing supply. 3. **Government Subsidies:** If the government provides subsidies or financial support to firms, their production costs decrease, leading to an increase in supply.

### Quick Tip

A rightward shift in the supply curve means that at any given price, the quantity supplied increases due to factors like lower input costs, technological improvements, and government subsidies.

---

**21. Write a short note on emergence of macroeconomics.**

**Solution:**

**Step 1: Define macroeconomics.**

Macroeconomics is the branch of economics that deals with the performance, structure, and behavior of an entire economy rather than individual markets. It focuses on large-scale

economic factors such as national income, unemployment rates, inflation, and economic growth.

**Step 2: Discuss the emergence of macroeconomics.**

Macroeconomics emerged in the 1930s during the Great Depression when the global economy faced widespread unemployment and deflation. Classical economics, which focused on supply and demand in individual markets, was unable to explain the economic downturn.

**Step 3: Contributions to the emergence.**

The work of economists like John Maynard Keynes led to the development of macroeconomics. Keynes argued that government intervention was necessary to stabilize the economy during times of recession. His ideas were formalized in his book "The General Theory of Employment, Interest, and Money" (1936), which laid the foundation for modern macroeconomic theory.

**Quick Tip**

The emergence of macroeconomics was crucial for understanding the overall economy's functioning, particularly during periods of economic crisis like the Great Depression.

---

**22. If consumer income increases, demand for normal goods also increases. What will be its effects on equilibrium price and equilibrium quantity?**

**Solution:**

**Step 1: Understand the effect of an increase in consumer income.**

When consumer income increases, the demand for normal goods increases because consumers are now able to purchase more goods at any given price.

**Step 2: Impact on demand curve.**

An increase in demand shifts the demand curve to the right. This leads to an increase in the equilibrium price and equilibrium quantity, as suppliers respond to the higher demand.

**Step 3: Effect on equilibrium price and quantity.**

- **Equilibrium Price:** The price increases due to higher demand.

- **Equilibrium Quantity:** The quantity increases as suppliers produce more to meet the higher demand.

#### Quick Tip

For normal goods, an increase in consumer income leads to an increase in demand, which raises both the equilibrium price and the equilibrium quantity.

---

### 23. Calculate equilibrium price and quantity from the given equations.

#### Solution:

#### Step 1: Define the equilibrium condition.

At equilibrium, the quantity demanded ( $q_d$ ) is equal to the quantity supplied ( $q_s$ ). Therefore, we can set the demand equation equal to the supply equation:

$$q_d = q_s$$

#### Step 2: Substitute the given equations.

We are given the following equations:

$$q_d = 400 - P$$

$$q_s = 200 + P$$

At equilibrium,  $q_d = q_s$ , so:

$$400 - P = 200 + P$$

#### Step 3: Solve for $P$ (equilibrium price).

Simplifying the equation:

$$400 - 200 = P + P$$

$$200 = 2P$$

$$P = \frac{200}{2} = 100$$

#### Step 4: Calculate the equilibrium quantity.

Substitute  $P = 100$  into either the demand or supply equation to find the equilibrium quantity. Using the demand equation:

$$q_d = 400 - 100 = 300$$

So, the equilibrium price is  $P = 100$  and the equilibrium quantity is  $q = 300$ .

#### Quick Tip

To find equilibrium, set the quantity demanded equal to the quantity supplied and solve for the price. Then substitute the price into either equation to find the equilibrium quantity.

---

## 24. Define Government Budget.

### Solution:

#### Step 1: Define government budget.

A government budget is an annual financial statement that outlines the government's planned revenue and expenditure for a specific period, usually a fiscal year. It is a tool used to manage and allocate public resources effectively.

#### Step 2: Components of the government budget.

The government budget consists of two main components: 1. **Revenue:** The income received by the government from various sources, such as taxes, duties, and non-tax revenues. 2.

**Expenditure:** The money the government spends on public goods and services, welfare programs, infrastructure, defense, etc.

#### Step 3: Purpose of a government budget.

The purpose of the government budget is to ensure that the government's financial resources are allocated efficiently and that fiscal policy goals, such as economic stability, growth, and income redistribution, are achieved.

#### Quick Tip

The government budget is a vital instrument for managing public finances and achieving macroeconomic stability.

---

## 25. Distinguish between cardinal utility analysis and ordinal utility analysis.

### Solution:

#### Step 1: Define Cardinal Utility Analysis.

Cardinal utility analysis assumes that utility can be measured in absolute terms (numerically). It suggests that the satisfaction derived from consuming goods can be quantified and compared using a numerical value, e.g., utils.

#### Step 2: Define Ordinal Utility Analysis.

Ordinal utility analysis, on the other hand, assumes that utility cannot be measured in numerical terms, but can only be ranked. It focuses on the preference order of goods or services rather than the magnitude of satisfaction.

#### Step 3: Key differences.

- In **cardinal utility analysis**, utility is measurable and expressed in numbers (e.g., 10 utils, 20 utils). - In **ordinal utility analysis**, utility is expressed in terms of ranking or preference (e.g., first choice, second choice, etc.), without assigning numerical values.

#### Step 4: Conclusion.

Cardinal utility analysis is more mathematical and focused on measurement, while ordinal utility analysis focuses on preferences and rankings.

#### Quick Tip

Cardinal utility involves quantifiable satisfaction, while ordinal utility involves ranking preferences without quantification.

---

## 26(a). Explain the features of perfect competitive market. (Any 3 points)

### Solution:

#### Step 1: Define a perfectly competitive market.

A perfectly competitive market is one where there are many buyers and sellers, and no single participant can influence the market price. The market operates efficiently, and resources are allocated optimally.

## Step 2: Discuss the features of a perfectly competitive market.

The key features of a perfectly competitive market include: 1. **Large number of buyers and sellers:** There are so many buyers and sellers that none of them can influence the market price. Each firm is a price taker. 2. **Homogeneous products:** The products offered by all firms are identical, and consumers cannot differentiate between them. 3. **Free entry and exit:** Firms can freely enter or leave the market without any restrictions, leading to no barriers to competition. 4. **Perfect knowledge:** All buyers and sellers have full knowledge about prices, products, and market conditions, leading to informed decision-making. 5. **No government interference:** There is no government intervention in setting prices or controlling the quantity of goods.

### Quick Tip

In a perfectly competitive market, firms are price takers, and there are no barriers to entry or exit.

---

**(b). Why a seller in a perfectly competitive market is unable to sell above the market price?**

**Solution:**

### Step 1: Define the concept of price taking.

In a perfectly competitive market, each firm is a price taker, meaning it cannot set its own price. The market price is determined by the overall supply and demand in the market.

### Step 2: Explain why a seller cannot sell above the market price.

A seller in a perfectly competitive market is unable to sell above the market price because: 1. If a seller attempts to charge a price higher than the market price, buyers will purchase from other sellers who are offering the same product at the lower price. 2. Since the products are homogeneous, there is no incentive for buyers to pay a premium for the product from one seller when they can easily buy from another seller at the prevailing market price. 3. In the long run, firms that attempt to charge higher prices will lose customers and potentially exit the market.

### Quick Tip

A perfectly competitive firm cannot charge above the market price because it would lose customers to other firms offering identical products at the market price.

---

#### 27(a). Illustrate price ceiling with the help of a example.

##### Solution:

##### Step 1: Define Price Ceiling.

A price ceiling is a legal maximum price that can be charged for a good or service, set by the government. It is typically imposed to make goods more affordable, especially for essential goods.

##### Step 2: Illustrate Price Ceiling Diagram.

In the diagram below, the price ceiling is represented by a horizontal line at price  $P_{\max}$ , which is below the equilibrium price  $P_{\text{eq}}$ . When the price ceiling is set below the equilibrium price, it creates a situation where the quantity demanded exceeds the quantity supplied, leading to a shortage.

##### Step 3: Diagram Description.

In the diagram: - The vertical axis represents price, and the horizontal axis represents quantity. - The supply curve slopes upwards, and the demand curve slopes downwards. - The price ceiling is drawn below the equilibrium price, creating a situation where the quantity demanded exceeds the quantity supplied at that price.

### Quick Tip

A price ceiling below the equilibrium price creates a shortage because the quantity demanded exceeds the quantity supplied at that price.

---

#### (b). Why do price ceilings lead to a shortage of commodities?

##### Solution:

### Step 1: Effect of Price Ceiling on Supply and Demand.

When a price ceiling is imposed below the equilibrium price, the price is artificially kept lower than what would naturally prevail in a free market. This causes the quantity demanded to increase while the quantity supplied decreases.

### Step 2: Shortage Formation.

- At the price ceiling, consumers want to buy more of the good because the price is lower than the equilibrium price.
- However, producers are not willing to supply as much at the lower price, as it may not cover production costs or provide adequate profits.
- This discrepancy between the higher demand and lower supply results in a shortage.

### Step 3: Conclusion.

Therefore, price ceilings lead to shortages because they encourage higher demand while reducing the willingness of producers to supply the goods at the artificially low price.

#### Quick Tip

Price ceilings create shortages by increasing demand and decreasing supply at the regulated price.

---

**28(a). Explain exchange rate and list any two factors affecting exchange rates.**

#### **Solution:**

#### **Step 1: Define exchange rate.**

An exchange rate is the value of one currency in terms of another currency. It indicates how much of one currency is required to purchase a unit of another currency.

#### **Step 2: List the factors affecting exchange rates.**

Two factors that affect exchange rates are: 1. **Inflation rates:** Higher inflation in a country relative to others leads to a depreciation of its currency. This is because higher inflation reduces the purchasing power of a currency. 2. **Interest rates:** Higher interest rates attract foreign investment, leading to an appreciation of the currency as investors need to buy the domestic currency to invest.

### Quick Tip

Remember: A currency's exchange rate is influenced by factors like inflation and interest rates, which affect the demand and supply of currencies in foreign exchange markets.

---

#### (b) How does a rise in exchange rate affect exports of a country?

##### Solution:

##### Step 1: Define rise in exchange rate.

A rise in the exchange rate means that the value of a country's currency has increased relative to other currencies. This is often referred to as currency appreciation.

##### Step 2: Discuss the effect on exports.

A rise in the exchange rate (currency appreciation) makes a country's goods and services more expensive for foreign buyers. As a result: 1. **Exports decline:** When the domestic currency appreciates, foreign consumers find the country's goods and services more expensive, leading to a decrease in demand for exports. 2. **Competitiveness reduces:** Higher prices make the country less competitive in international markets, potentially reducing export volumes.

### Quick Tip

A rise in exchange rates (currency appreciation) makes exports more expensive, thus potentially reducing their demand in foreign markets.

---

#### 29(a). Given the consumption function $C = 200 + 0.8Y$ , $I = 300$ , find the equilibrium income.

##### Solution:

##### Step 1: Define the equilibrium condition.

At equilibrium, total output (income)  $Y$  equals total expenditure, which is the sum of

consumption  $C$  and investment  $I$ . Therefore, the equilibrium condition is:

$$Y = C + I$$

**Step 2: Substitute the given values.**

We are given the consumption function  $C = 200 + 0.8Y$  and investment  $I = 300$ . Substituting these into the equilibrium condition:

$$Y = (200 + 0.8Y) + 300$$

**Step 3: Solve for  $Y$ .**

Simplifying the equation:

$$Y = 500 + 0.8Y$$

$$Y - 0.8Y = 500$$

$$0.2Y = 500$$

$$Y = \frac{500}{0.2} = 2500$$

**Quick Tip**

To find equilibrium income, set total income equal to the sum of consumption and investment, and solve for  $Y$ .

---

**(b). Prepare a graphical representation of determination of equilibrium income in a two-sector economy.**

**Solution:**

**Step 1: Explain the Graphical Representation.**

In a two-sector economy, the equilibrium income is determined where the aggregate demand curve intersects the 45-degree line (where income equals expenditure).

**Step 2: Plot the Consumption and Aggregate Demand Curves.**

- The consumption function is given by  $C = 200 + 0.8Y$ , which shows the relationship between consumption and income.

- The investment  $I = 300$  is constant and represents the vertical line of the investment.

### **Step 3: Graphical Illustration.**

The intersection of the aggregate demand curve (which is the sum of consumption and investment) with the 45-degree line represents the equilibrium income, which in this case is  $Y = 2500$ .

#### Quick Tip

The equilibrium income occurs where the aggregate demand curve intersects the 45-degree line in a two-sector economy.

---

### **30 (a). Define Gross Domestic Product.**

#### **Solution:**

#### **Step 1: Define Gross Domestic Product (GDP).**

Gross Domestic Product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. It is used to measure the economic performance of a country.

#### **Step 2: Key points of GDP.**

1. GDP includes all economic activities within a country's borders. 2. It is typically measured annually or quarterly. 3. It includes goods and services produced in the formal sector.

#### Quick Tip

GDP is a key indicator of a country's economic health, reflecting its production capacity and overall economic output.

---

### **(b). List the three methods of measuring Gross Domestic Product of an economy.**

#### **Solution:**

### Step 1: Identify the three methods of measuring GDP.

The three methods of measuring Gross Domestic Product (GDP) of an economy are: 1.

**Production Method:** This method calculates GDP by adding up the value of goods and services produced within the economy. It is also known as the value-added method, where the value added at each stage of production is considered. 2. **Expenditure Method:** This method measures GDP by summing up all the expenditures made in the economy, including consumption, investment, government spending, and net exports (exports minus imports). 3.

**Income Method:** This method calculates GDP by adding up all the incomes earned by individuals and firms in the economy, including wages, profits, rents, and interest.

#### Quick Tip

All three methods (Production, Expenditure, and Income) should ideally result in the same GDP value, but they approach the calculation from different perspectives.