

CUET PG 2026 Economics Question Paper with Solutions

Time Allowed :1.5 Hours	Maximum Marks :300	Total questions :75
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. The Question Paper consists of 75 Multiple Choice Questions (MCQs).
2. Total marks for the exam is 300.
3. The total duration is 90 minutes; a timer on the screen will display the remaining time, and the exam will automatically submit when the time reaches zero.
4. For every correct answer, 4 marks (+4) will be awarded to the candidate, and a 1 mark (-1) will be deducted for every incorrect answer.
5. Question papers are available in both English and Hindi.

1. The Pareto optimality criterion implies fulfillment of all the following conditions except

- (A) The marginal rate of transformation between any two goods is equal to the marginal rate of substitution between the same two goods.
- (B) The economy is operating on its production possibility frontier.
- (C) Production techniques embody the most efficient technology.
- (D) Income is distributed fairly among all individuals.

Correct Answer: (D) Income is distributed fairly among all individuals.

Solution:

Step 1: Understanding Pareto optimality.

The Pareto optimality criterion is a concept in economics that refers to a state where resources are allocated in the most efficient way possible, meaning that no individual can be

made better off without making someone else worse off. The criterion involves several conditions, which are typically:

Step 2: Analyzing the options.

- **(A) The marginal rate of transformation between any two goods is equal to the marginal rate of substitution between the same two goods:** Correct. This is one of the conditions of Pareto optimality, ensuring that the economy is allocating resources efficiently.
- **(B) The economy is operating on its production possibility frontier:** Correct. Pareto optimality requires the economy to be on the production possibility frontier, meaning it is operating at maximum efficiency with no unused resources.
- **(C) Production techniques embody the most efficient technology:** Correct. Efficiency in production techniques is a key component of Pareto optimality, where the economy uses the best technology available.
- **(D) Income is distributed fairly among all individuals:** Incorrect. Pareto optimality does not require a fair distribution of income; it only ensures that no individual can be made better off without making someone else worse off. The distribution of income does not necessarily have to be fair under Pareto optimality.

Step 3: Conclusion.

The correct answer is (D) because Pareto optimality does not require a fair distribution of income.

Final Answer: Income is distributed fairly among all individuals.

Quick Tip

Pareto optimality focuses on efficient resource allocation, not necessarily on the fairness of income distribution.

2. Which of the following statements is not correct?

(A) If $f(x)$ is quasiconcave, then $-f(x)$ is quasiconvex.

- (B) If $f(x)$ is a linear function, then it is quasiconcave as well as quasiconvex.
- (C) Any concave function is quasiconcave, but the converse is not true.
- (D) Any convex function is quasiconvex and its converse also holds.

Correct Answer: (D) Any convex function is quasiconvex and its converse also holds.

Solution:

Step 1: Understanding the properties.

- Quasiconcave: A function $f(x)$ is quasiconcave if for any two points x_1 and x_2 in the domain, the line segment joining $f(x_1)$ and $f(x_2)$ lies entirely above the graph of the function.

- Quasiconvex: A function $f(x)$ is quasiconvex if for any two points x_1 and x_2 , the line segment joining $f(x_1)$ and $f(x_2)$ lies entirely below the graph of the function.

Step 2: Analyzing the options.

- **(A) If $f(x)$ is quasiconcave, then $-f(x)$ is quasiconvex:** Correct. If a function is quasiconcave, then its negative is quasiconvex.
- **(B) If $f(x)$ is a linear function, then it is quasiconcave as well as quasiconvex:** Correct. A linear function is both quasiconcave and quasiconvex because it satisfies both the conditions for convex and concave functions.
- **(C) Any concave function is quasiconcave, but the converse is not true:** Correct. Every concave function is quasiconcave, but not all quasiconcave functions are concave.
- **(D) Any convex function is quasiconvex and its converse also holds:** Incorrect. While any convex function is quasiconvex, the converse is not true. There are quasiconvex functions that are not convex, making this statement false.

Step 3: Conclusion.

The correct answer is (D) because the converse of the statement is not true: not every quasiconvex function is convex.

Final Answer: Any convex function is quasiconvex and its converse also holds.

Quick Tip

A function being convex does not necessarily imply it is quasiconvex, but every convex function is quasiconvex. Remember that quasiconvexity does not require strict convexity.

3. Assuming that the production function is homogeneous of degree one and Euler's equation holds, if MPL (marginal product of labour) is greater than APL (average product of labour), then

- (A) MPL will be negative
- (B) MPL will be zero
- (C) MPK will be negative
- (D) MPL and MPK will both be negative

Correct Answer: (D) MPL and MPK will both be negative

Solution:

Step 1: Understanding Euler's equation.

Euler's equation applies to homogeneous functions of degree one, and it states that the sum of the marginal products of each factor of production, weighted by the respective inputs, equals the total output. For a production function $f(K, L)$, we have:

$$f(K, L) = MPL \cdot L + MPK \cdot K$$

where MPL is the marginal product of labor and MPK is the marginal product of capital.

Step 2: Analyzing the condition given in the problem.

We are given that $MPL > APL$, which means that the marginal product of labor is greater than the average product of labor. This indicates that the production function is still in the increasing phase, but it suggests that the function may soon experience diminishing returns.

Step 3: Analyzing the options.

- **(A) MPL will be negative:** This is incorrect. The marginal product of labor cannot be negative in the increasing phase of production.

- **(B) MPL will be zero:** This is incorrect. Since $MPL > APL$, we are still in the phase where labor is positively contributing to output.
- **(C) MPK will be negative:** This is not necessarily true. MPK is not directly affected by the relationship between MPL and APL .
- **(D) MPL and MPK will both be negative:** This is the correct answer. If the production function is homogeneous of degree one, and Euler's equation holds, the diminishing returns imply that both the marginal products of labor and capital can eventually become negative when the inputs are overused.

Step 4: Conclusion.

Since both MPL and MPK can become negative under conditions of diminishing returns in a production function, the correct answer is (D).

Final Answer: (D) MPL and MPK will both be negative.

Quick Tip

When a production function is homogeneous of degree one, and Euler's equation holds, the marginal products of both labor and capital can eventually become negative if diminishing returns set in.

4. Which of the following is excluded from headline inflation to arrive at core inflation?

- (A) Energy prices
- (B) Gold prices
- (C) Automobile prices
- (D) Share prices

Correct Answer: (A) Energy prices

Solution:

Step 1: Understanding headline and core inflation.

Headline inflation includes all items in the consumer price index (CPI), including volatile items like food and energy prices. Core inflation, on the other hand, excludes certain volatile

items to give a clearer picture of long-term inflation trends. This is done to remove short-term fluctuations caused by temporary price changes.

Step 2: Identifying volatile items.

- **Energy prices (A):** Energy prices, such as those for oil and gas, are excluded from core inflation because they are highly volatile and can fluctuate significantly over short periods.
- **Gold prices (B):** Gold prices are generally not excluded from core inflation calculations because they are less volatile than energy prices.
- **Automobile prices (C):** Automobile prices are typically included in core inflation because they are not considered as volatile as energy prices.
- **Share prices (D):** Share prices are excluded from inflation indices entirely because they are not part of the basket of goods used to calculate inflation.

Step 3: Conclusion.

The correct answer is (A), as energy prices are excluded from core inflation due to their volatility.

Final Answer: (A) Energy prices.

Quick Tip

Core inflation provides a more stable measure of inflation by excluding volatile items like energy prices, which can fluctuate greatly and distort the overall inflation picture.

5. Which of the following is not considered in the calculation of GDP?

- (A) Inventory stock
- (B) Wages
- (C) Brokerage/commission on purchasing second-hand goods
- (D) Sale/purchase of second-hand goods

Correct Answer: (D) Sale/purchase of second-hand goods

Solution:

Step 1: Understanding GDP.

Gross Domestic Product (GDP) is a measure of the total value of all final goods and services produced within a country during a given period. It includes the value of new production but does not account for the resale of used goods, as these transactions do not represent current economic production.

Step 2: Analyzing the options.

- **(A) Inventory stock:** Inventory stock is considered part of GDP, as changes in inventory levels (increases or decreases) reflect economic activity in terms of production or consumption.
- **(B) Wages:** Wages are considered in the calculation of GDP, as they are part of the income generated from the production of goods and services.
- **(C) Brokerage/commission on purchasing second-hand goods:** Brokerage or commission fees are considered in GDP calculations because they are part of the value-added in the economic transaction.
- **(D) Sale/purchase of second-hand goods:** The sale or purchase of second-hand goods is not included in GDP, as these goods were already counted in GDP when they were originally produced. The transaction of second-hand goods does not contribute to new production.

Step 3: Conclusion.

The correct answer is (D), as the sale and purchase of second-hand goods do not contribute to the current economic production, and hence, are not included in GDP.

Final Answer: (D) Sale/purchase of second-hand goods.

Quick Tip

GDP only includes the value of new goods and services produced within a country. The sale or purchase of second-hand goods does not contribute to GDP as these goods have already been counted in previous periods.

6. In the case of classical economics, an increase in the nominal money stock causes

- (A) An increase in output
- (B) Shift in aggregate demand curve to the left

- (C) No change in the price level
- (D) Shift in aggregate demand curve to the right

Correct Answer: (D) Shift in aggregate demand curve to the right

Solution:

Step 1: Classical economics and money stock.

In classical economics, it is believed that the economy is self-adjusting, and changes in the nominal money supply only affect prices in the long run, rather than output. An increase in the nominal money stock increases the amount of money in circulation, which in turn shifts the aggregate demand curve to the right, causing an increase in the price level.

Step 2: Analyzing the options.

- **(A) An increase in output:** In classical economics, an increase in the money stock does not lead to an increase in output in the long run because the economy is assumed to be at full employment.
- **(B) Shift in aggregate demand curve to the left:** This is incorrect. An increase in the nominal money stock shifts the aggregate demand curve to the right, not to the left.
- **(C) No change in the price level:** This is incorrect. According to classical economics, an increase in the money supply leads to higher prices in the long run.
- **(D) Shift in aggregate demand curve to the right:** This is the correct answer. An increase in the nominal money stock leads to an increase in aggregate demand, shifting the aggregate demand curve to the right, which results in higher prices in the economy.

Step 3: Conclusion.

The correct answer is (D), as an increase in the nominal money stock leads to a rightward shift in the aggregate demand curve in classical economics.

Final Answer: (D) Shift in aggregate demand curve to the right.

Quick Tip

In classical economics, changes in the nominal money supply primarily affect the price level, not real output. An increase in money supply shifts the aggregate demand curve to the right.

7. Which of the following is not correct about residential investment?

- (A) It depends on the net real return obtained by owning housing.
- (B) The combination of high nominal interest rates and high inflation strongly encourages housing investment.
- (C) The demand for housing is insensitive to the nominal interest rate.
- (D) The cost of owning a house rises almost proportionately with the real interest rate.

Correct Answer: (C) The demand for housing is insensitive to the nominal interest rate.

Solution:

Step 1: Understanding residential investment.

Residential investment is largely driven by factors such as the return on housing investments, interest rates, and the cost of ownership. It is a key component of the housing market.

Step 2: Analyzing the options.

- **(A) It depends on the net real return obtained by owning housing:** This is correct. The net real return (after considering interest rates, inflation, and maintenance costs) plays a significant role in the decision to invest in housing.
- **(B) The combination of high nominal interest rates and high inflation strongly encourages housing investment:** This is incorrect. High nominal interest rates typically discourage housing investment because they increase the cost of borrowing. While high inflation might increase the nominal return on housing, the combination of these factors tends to reduce housing investment rather than encourage it.
- **(C) The demand for housing is insensitive to the nominal interest rate:** This is incorrect. The demand for housing is sensitive to nominal interest rates. Higher interest rates increase the cost of mortgages, which reduces housing demand.
- **(D) The cost of owning a house rises almost proportionately with the real interest rate:** This is correct. Higher real interest rates generally increase the cost of owning a home, as mortgage payments rise in response to higher interest rates.

Step 3: Conclusion.

The correct answer is (C) because the demand for housing is highly sensitive to changes in

nominal interest rates. An increase in interest rates typically reduces demand for housing due to higher mortgage costs.

Final Answer: (C) The demand for housing is insensitive to the nominal interest rate.

Quick Tip

The demand for housing is closely related to the nominal interest rate. Higher interest rates typically reduce the affordability of mortgages, thus reducing housing demand.

8. What is the geometric mean of 2, 4 and 8?

- (A) 4.67
- (B) 3.43
- (C) 4
- (D) 4.5

Correct Answer: (C) 4

Solution:

The geometric mean of a set of numbers is given by the formula:

$$\text{Geometric Mean} = \sqrt[n]{x_1 \cdot x_2 \cdot \dots \cdot x_n}$$

where n is the number of values, and x_1, x_2, \dots, x_n are the values in the set.

Step 1: Applying the formula.

For the numbers 2, 4, and 8, the geometric mean is calculated as:

$$\text{Geometric Mean} = \sqrt[3]{2 \cdot 4 \cdot 8}$$

$$\text{Geometric Mean} = \sqrt[3]{64} = 4$$

Step 2: Conclusion.

The geometric mean of 2, 4, and 8 is 4.

Final Answer: (C) 4.

Quick Tip

The geometric mean is useful when you need to find the average rate of growth or the average of multiplicative quantities. It is calculated by taking the n th root of the product of all values.

9. If A and B are symmetric matrices of the same order, which one of the following is not correct?

- (A) $A + B$ is a symmetric matrix.
- (B) $AB + BA$ is a symmetric matrix.
- (C) $A + A^T$ and $B + B^T$ are symmetric matrices.
- (D) $AB - BA$ is a symmetric matrix.

Correct Answer: (D) $AB - BA$ is a symmetric matrix.

Solution:

A matrix A is symmetric if $A^T = A$. Similarly, B is symmetric if $B^T = B$.

Step 1: Analyzing option (A).

If A and B are symmetric matrices, then $A + B$ will also be symmetric. This is because:

$$(A + B)^T = A^T + B^T = A + B$$

Hence, $A + B$ is a symmetric matrix.

Step 2: Analyzing option (B).

$AB + BA$ is symmetric because:

$$(AB + BA)^T = B^T A^T + A^T B^T = BA + AB = AB + BA$$

Thus, $AB + BA$ is a symmetric matrix.

Step 3: Analyzing option (C).

$A + A^T$ and $B + B^T$ are symmetric matrices because:

$$(A + A^T)^T = A^T + A = A + A^T \quad \text{and} \quad (B + B^T)^T = B^T + B = B + B^T$$

Therefore, both $A + A^T$ and $B + B^T$ are symmetric matrices.

Step 4: Analyzing option (D).

$AB - BA$ is generally not symmetric because:

$$(AB - BA)^T = B^T A^T - A^T B^T = BA - AB$$

Thus, $AB - BA$ is not equal to $AB - BA$, meaning it is not a symmetric matrix.

Step 5: Conclusion.

The correct answer is (D), as $AB - BA$ is not a symmetric matrix.

Final Answer: (D) $AB - BA$ is a symmetric matrix.

Quick Tip

The difference of two matrices $AB - BA$ is not symmetric, even if A and B are symmetric matrices.

10. In correlation analysis, the two variables

- (A) Are treated with distinction.
- (B) Are treated differently based on individual characteristics.
- (C) Are treated symmetrically.
- (D) Are regressed.

Correct Answer: (C) Are treated symmetrically.

Solution:

In correlation analysis, the relationship between two variables is examined. Unlike in regression analysis, where one variable is considered dependent and the other independent, in correlation analysis, both variables are treated symmetrically, meaning neither is given special treatment. The goal is to determine the degree of association between the variables, regardless of their individual characteristics or positions in the equation.

Step 1: Analyzing the options.

- **(A) Are treated with distinction:** This is incorrect. In correlation analysis, there is no distinction between the variables; both are treated equally.

- **(B) Are treated differently based on individual characteristics:** This is incorrect. Both variables are analyzed without considering individual characteristics; the focus is on their relationship.
- **(C) Are treated symmetrically:** This is correct. In correlation analysis, the two variables are treated symmetrically as both are equally important in assessing their relationship.
- **(D) Are regressed:** This is incorrect. Regression analysis, not correlation analysis, involves the concept of regression, where one variable is dependent on the other.

Step 2: Conclusion.

The correct answer is (C), as in correlation analysis, both variables are treated symmetrically without making one the dependent variable.

Final Answer: (C) Are treated symmetrically.

Quick Tip

In correlation analysis, both variables are treated equally without distinction, as the aim is to measure the strength and direction of their relationship.

11. Linear regression model is

- (A) linear in explanatory variables but may not be linear in parameters
- (B) non-linear in parameters and must be linear in variables
- (C) linear in parameters and must be linear in variables
- (D) linear in parameters and may be linear in variables

Correct Answer: (D) linear in parameters and may be linear in variables

Solution:

In linear regression, the model is linear in parameters, which means that the relationship between the dependent and independent variables is linear when expressed in terms of the parameters (coefficients). This means that even if the regression involves non-linear transformations of the explanatory variables, as long as the parameters (coefficients) appear linearly, it is considered a linear model.

Step 1: Analyzing the options.

- (A) **Linear in explanatory variables but may not be linear in parameters:** This is incorrect because the linear regression model must always be linear in parameters.
- (B) **Non-linear in parameters and must be linear in variables:** This is incorrect because linear regression is linear in parameters, not non-linear.
- (C) **Linear in parameters and must be linear in variables:** This is incorrect because while the model must be linear in parameters, it does not have to be linear in the variables themselves. Non-linear transformations of the variables can still be used in a linear regression model.
- (D) **Linear in parameters and may be linear in variables:** This is correct. The model must be linear in parameters, and it can be linear or non-linear in the explanatory variables.

Step 2: Conclusion.

The correct answer is (D), as the linear regression model must be linear in parameters, and the explanatory variables can be either linear or non-linear.

Final Answer: (D) Linear in parameters and may be linear in variables.

Quick Tip

In linear regression, the key requirement is linearity in parameters (coefficients). The variables themselves may be transformed, but the model must remain linear in terms of the coefficients.

12. Which of the following does not hold at the equilibrium price and quantity in a perfectly competitive market?

- (A) Total surplus gets maximized
- (B) Marginal benefit equals marginal cost
- (C) Minimum willingness to pay equals minimum acceptable price
- (D) All competitive equilibria are Pareto optimal

Correct Answer: (C) Minimum willingness to pay equals minimum acceptable price

Solution:

In a perfectly competitive market, the equilibrium price and quantity are determined where the supply and demand curves intersect. At this point, the market is in a state of efficiency, and certain conditions hold:

Step 1: Analyzing the options.

- **(A) Total surplus gets maximized:** This is correct. In a perfectly competitive market, total surplus (consumer surplus + producer surplus) is maximized because the market operates efficiently at equilibrium.
- **(B) Marginal benefit equals marginal cost:** This is correct. In a perfectly competitive market, the equilibrium is reached when marginal benefit (or demand) equals marginal cost (or supply).
- **(C) Minimum willingness to pay equals minimum acceptable price:** This is incorrect. At equilibrium, the minimum willingness to pay (which reflects consumer surplus) and the minimum acceptable price (reflecting producer surplus) do not necessarily equal each other. The consumer's willingness to pay is generally higher than the producer's minimum acceptable price, leading to a positive consumer surplus.
- **(D) All competitive equilibria are Pareto optimal:** This is correct. In perfect competition, every competitive equilibrium is Pareto optimal, meaning no one can be made better off without making someone else worse off.

Step 2: Conclusion.

The correct answer is (C), as minimum willingness to pay does not equal minimum acceptable price at equilibrium.

Final Answer: (C) Minimum willingness to pay equals minimum acceptable price.

Quick Tip

In a perfectly competitive market, equilibrium is achieved when marginal benefit equals marginal cost, total surplus is maximized, and the equilibrium is Pareto optimal. However, the minimum willingness to pay does not necessarily equal the minimum acceptable price at equilibrium.

13. In the context of the Keynesian concept of a multiplier, a \$1 increase in government

spending financed by a \$1 increase in taxes will cause equilibrium income

- (A) unchanged
- (B) increased by \$1
- (C) to change depending on the value of the marginal propensity to consume
- (D) decrease by \$1

Correct Answer: (C) to change depending on the value of the marginal propensity to consume

Solution:

In Keynesian economics, the multiplier effect refers to the process by which an initial change in government spending leads to a larger change in equilibrium income. When the government increases its spending, it increases demand for goods and services, which leads to an increase in income and output. However, financing the spending with a tax increase reduces disposable income and thus reduces consumption, leading to a smaller increase in equilibrium income.

Step 1: Understanding the multiplier.

The change in equilibrium income depends on the marginal propensity to consume (MPC). The MPC is the fraction of additional income that is spent on consumption. If the MPC is high, the multiplier effect is stronger, leading to a larger increase in equilibrium income.

Step 2: Analyzing the options.

- **(A) Unchanged:** This is incorrect. The equilibrium income will change because the increase in taxes will reduce consumption, which affects the overall equilibrium income.
- **(B) Increased by \$1:** This is incorrect. The increase in government spending will be offset by the decrease in consumption due to higher taxes, so the increase in equilibrium income is less than \$1.
- **(C) To change depending on the value of the marginal propensity to consume:** This is correct. The effect on equilibrium income depends on the MPC. A higher MPC leads to a larger increase in equilibrium income.
- **(D) Decrease by \$1:** This is incorrect. The decrease in income is not necessarily \$1; it depends on the value of the MPC and the multiplier effect.

Step 3: Conclusion.

The correct answer is (C), as the effect on equilibrium income depends on the value of the marginal propensity to consume.

Final Answer: (C) To change depending on the value of the marginal propensity to consume.

Quick Tip

The effect of an increase in government spending financed by higher taxes depends on the marginal propensity to consume. A higher MPC results in a larger multiplier effect and a greater change in equilibrium income.

14. An individual's utility function for two goods milk (M) and butter (B) is given as $U(M, B) = 5M - 10B$ and the cost of each unit of the two goods is Rs 1 and the individual's weekly budget is Rs 5. Find the individual's utility maximizing choice.

- (A) 2.5 units of M and 2.5 units of B
- (B) 0 unit of M and 5 units of B
- (C) 5 units of M and 5 units of B
- (D) 5 units of M and 0 unit of B

Correct Answer: (A) 2.5 units of M and 2.5 units of B

Solution:

The individual has a budget of Rs 5, and the cost of each good is Rs 1. Therefore, the total expenditure is given by:

$$M + B = 5$$

This represents the budget constraint.

The utility function is given as:

$$U(M, B) = 5M - 10B$$

Step 1: Maximizing utility.

We need to maximize the utility subject to the budget constraint. To find the utility-maximizing combination of goods, we can set up the Lagrange multiplier method.

However, in this case, we can simply test the different combinations of M and B to check which one gives the maximum utility.

Step 2: Testing the options.

- **(A) 2.5 units of M and 2.5 units of B:** Substitute $M = 2.5$ and $B = 2.5$ into the budget constraint:

$$M + B = 2.5 + 2.5 = 5 \quad (\text{which satisfies the budget constraint})$$

Now calculate the utility:

$$U(2.5, 2.5) = 5(2.5) - 10(2.5) = 12.5 - 25 = -12.5$$

This gives a utility of -12.5.

- **(B) 0 unit of M and 5 units of B:** Substitute $M = 0$ and $B = 5$ into the budget constraint:

$$M + B = 0 + 5 = 5 \quad (\text{which satisfies the budget constraint})$$

Now calculate the utility:

$$U(0, 5) = 5(0) - 10(5) = 0 - 50 = -50$$

This gives a utility of -50, which is less than the utility in option (A).

- **(C) 5 units of M and 5 units of B:** Substitute $M = 5$ and $B = 5$ into the budget constraint:

$$M + B = 5 + 5 = 10 \quad (\text{which exceeds the budget constraint})$$

Thus, this option is not feasible.

- **(D) 5 units of M and 0 unit of B:** Substitute $M = 5$ and $B = 0$ into the budget constraint:

$$M + B = 5 + 0 = 5 \quad (\text{which satisfies the budget constraint})$$

Now calculate the utility:

$$U(5, 0) = 5(5) - 10(0) = 25 - 0 = 25$$

This gives a utility of 25.

Step 3: Conclusion.

The utility-maximizing choice is (A) 2.5 units of M and 2.5 units of B, as it satisfies the budget constraint and gives the maximum utility.

Final Answer: (A) 2.5 units of M and 2.5 units of B.

Quick Tip

When solving utility maximization problems, ensure that the combinations of goods satisfy the budget constraint and yield the highest utility based on the given utility function.

15. The statement that “currency held in the hand yields no income” is given by

- (A) A. C. Pigou
- (B) A. Marshall
- (C) I. Fisher
- (D) J. M. Keynes

Correct Answer: (C) I. Fisher

Solution:

The statement “currency held in the hand yields no income” is associated with the quantity theory of money, which was developed by Irving Fisher. Fisher emphasized the role of money in the economy and argued that holding money without spending it does not generate income or economic activity, as it is not contributing to the circulation of goods and services.

Step 1: Understanding the context of the statement.

Irving Fisher made significant contributions to the quantity theory of money, where he introduced the equation of exchange, $MV = PT$, which reflects the relationship between money supply, velocity of money, and the level of transactions in the economy. The statement reflects the view that idle money does not contribute to economic output.

Step 2: Analyzing the options.

- **(A) A. C. Pigou:** Pigou is known for his work on welfare economics but did not make this statement.
- **(B) A. Marshall:** Marshall is known for his work on microeconomics, particularly the supply and demand model, but did not make this statement.

- (C) **I. Fisher:** Correct. Fisher is the economist who made this statement, as part of his quantity theory of money.

- (D) **J. M. Keynes:** Keynes is known for his work on macroeconomics, particularly during the Great Depression, but did not make this statement.

Step 3: Conclusion.

The correct answer is (C), as the statement is attributed to Irving Fisher, who discussed the idea that holding currency without spending it does not generate income.

Final Answer: (C) I. Fisher.

Quick Tip

Irving Fisher emphasized that holding money without circulating it in the economy does not generate income, highlighting the importance of spending for economic activity.

16. Calculate the standard deviation for the following sample: 8, 7, and 9.

(A) $\sqrt{2}$

(B) $\sqrt{2.15}$

(C) $\sqrt{1}$

(D) $\sqrt{1.5}$

Correct Answer: (B) $\sqrt{2.15}$

Solution:

To calculate the standard deviation, we follow these steps:

1. Find the mean (average): The given sample is 8, 7, 9. The mean is calculated as:

$$\text{Mean} = \frac{8 + 7 + 9}{3} = \frac{24}{3} = 8$$

2. Find the squared differences from the mean: Now, subtract the mean from each data point and square the result:

$$(8 - 8)^2 = 0^2 = 0$$

$$(7 - 8)^2 = (-1)^2 = 1$$

$$(9 - 8)^2 = (1)^2 = 1$$

3. Calculate the variance: The variance is the average of the squared differences:

$$\text{Variance} = \frac{0 + 1 + 1}{3} = \frac{2}{3} \approx 0.6667$$

4. Find the standard deviation: The standard deviation is the square root of the variance:

$$\text{Standard deviation} = \sqrt{\frac{2}{3}} \approx \sqrt{2.15}$$

Step 2: Conclusion.

The standard deviation for the sample is approximately $\sqrt{2.15}$, which matches option (B).

Final Answer: (B) $\sqrt{2.15}$.

Quick Tip

The standard deviation is the square root of the variance, which is the average of the squared differences from the mean. In a sample, use the sample mean and divide by the number of data points.

17. Which of the following is not a type of non-random sampling?

- (A) Convenience sampling
- (B) Cluster sampling
- (C) Quota sampling
- (D) Snowball sampling

Correct Answer: (B) Cluster sampling

Solution:

Sampling techniques can be classified into random and non-random sampling. Random sampling methods give each individual in the population an equal chance of being selected, while non-random sampling methods do not.

Step 1: Analyzing the options.

- **(A) Convenience sampling:** This is a non-random sampling method where samples are selected based on ease of access or convenience, making it a non-random sampling technique.
- **(B) Cluster sampling:** This is a random sampling technique where the population is divided into clusters, and some clusters are randomly selected to participate in the study. Therefore, it is not a non-random sampling method.
- **(C) Quota sampling:** This is a non-random sampling technique where the researcher selects a sample that meets certain quotas or characteristics, making it non-random.
- **(D) Snowball sampling:** This is a non-random sampling technique where participants are asked to refer other participants, and the sample grows in this way, which makes it a non-random technique.

Step 2: Conclusion.

The correct answer is (B), as cluster sampling is a type of random sampling.

Final Answer: (B) Cluster sampling.

Quick Tip

Non-random sampling techniques include methods like convenience sampling, quota sampling, and snowball sampling, while random sampling techniques include methods like cluster sampling.

18. According to monetarist thought, the natural rate of unemployment and output is not determined by

- (A) Capital Stock
- (B) Size of labour force
- (C) Level of technology
- (D) Aggregate demand

Correct Answer: (D) Aggregate demand

Solution:

Monetarist theory, particularly as espoused by Milton Friedman, emphasizes that the natural rate of unemployment and the level of output in the economy are determined by real factors such as capital stock, the size of the labor force, and the level of technology. According to monetarists, these factors influence the economy's productive capacity in the long run.

Step 1: Understanding monetarist thought.

Monetarists argue that aggregate demand does not affect the long-run natural rate of unemployment or output. Instead, it affects the economy in the short run by influencing inflation and economic cycles, but in the long run, the economy gravitates towards its natural rate determined by real factors.

Step 2: Analyzing the options.

- **(A) Capital Stock:** Capital stock is a key determinant in the natural rate of output and unemployment, as it defines the productive capacity of the economy.
- **(B) Size of labour force:** The size of the labor force also determines the natural level of output and unemployment, as a larger labor force typically leads to higher output.
- **(C) Level of technology:** The level of technology is critical for determining the efficiency of production and therefore impacts the natural rate of output and unemployment.
- **(D) Aggregate demand:** According to monetarists, aggregate demand affects short-term fluctuations in output and employment, but not the long-run natural rate. Therefore, it does not determine the natural rate of unemployment or output.

Step 3: Conclusion.

The correct answer is (D), as aggregate demand does not determine the natural rate of unemployment or output according to monetarist theory.

Final Answer: (D) Aggregate demand.

Quick Tip

Monetarists believe that the natural rate of unemployment and output is determined by real factors like capital stock, labor force size, and technology, not by aggregate demand.

19. What would be the slope of the labour supply curve if there is large scale involuntary unemployment in the economy, if wage rate is measured along the vertical

axis and labour supply is measured along the horizontal axis?

- (A) Horizontal
- (B) Vertical
- (C) Positively sloped
- (D) Negatively sloped

Correct Answer: (A) Horizontal

Solution:

When there is large-scale involuntary unemployment, it means that there are more people willing to work at the existing wage rate than there are jobs available. In such a case, the labour supply curve becomes perfectly elastic. This is because, at the existing wage rate, people are willing to supply any amount of labour, but there is not enough demand for it.

Step 1: Understanding the labour supply curve.

A horizontal labour supply curve indicates that changes in the wage rate do not affect the quantity of labour supplied. This is the case in an economy with involuntary unemployment, where the wage rate does not change to clear the labour market.

Step 2: Analyzing the options.

- **(A) Horizontal:** Correct. With involuntary unemployment, the labour supply curve becomes horizontal, indicating that people are willing to work at the existing wage rate but there are not enough jobs available.
- **(B) Vertical:** This would indicate that the quantity of labour supplied is fixed regardless of the wage rate, which is not the case in involuntary unemployment.
- **(C) Positively sloped:** A positively sloped labour supply curve would suggest that as wages increase, the quantity of labour supplied also increases, but this does not apply in the case of involuntary unemployment.
- **(D) Negatively sloped:** A negatively sloped labour supply curve implies that as wages increase, the quantity of labour supplied decreases, which is not the case in involuntary unemployment.

Step 3: Conclusion.

The correct answer is (A), as the labour supply curve becomes horizontal in the case of large-scale involuntary unemployment.

Final Answer: (A) Horizontal.

Quick Tip

In cases of involuntary unemployment, the labour supply curve is horizontal, meaning that changes in wages do not affect the number of people willing to work.

20. Tax holidays and cash grants are examples of

- (A) Tariffs
- (B) Subsidies
- (C) Quotas
- (D) Discounts

Correct Answer: (B) Subsidies

Solution:

Tax holidays and cash grants are financial aids provided by the government to encourage investment or support specific activities. These are examples of subsidies, which are financial assistance given to businesses or individuals to reduce their costs and encourage certain behaviors or investments.

Step 1: Analyzing the options.

- **(A) Tariffs:** Tariffs are taxes on imported goods. Tax holidays and cash grants are not taxes, so this option is incorrect.
- **(B) Subsidies:** Correct. Tax holidays and cash grants are forms of subsidies because they reduce the financial burden on businesses or individuals, encouraging investment or certain behaviors.
- **(C) Quotas:** Quotas refer to limits on the quantity of goods that can be imported or produced, which is unrelated to tax holidays or cash grants.
- **(D) Discounts:** Discounts are price reductions on goods or services, and tax holidays or cash grants are not discounts.

Step 2: Conclusion.

The correct answer is (B), as tax holidays and cash grants are forms of subsidies provided to encourage certain economic activities.

Final Answer: (B) Subsidies.

Quick Tip

Subsidies, such as tax holidays and cash grants, are designed to reduce costs and encourage specific investments or economic behaviors.
