

CUET PG 2026 Economics Question Paper with Solutions (12 March, Shift 2)

General Instructions

- (i) This booklet contains 75 questions, each provided with a complete, step-by-step solution.
- (ii) It comprises 75 single-correct multiple-choice questions.
- (iii) These questions follow the CUET (PG) examination pattern.
- (iv) Each correct answer is awarded +4 marks, with -1 for an incorrect answer; unattempted questions carry no marks.
- (v) The time allotted for this paper is 90 minutes (75 questions, 300 marks).
- (vi) Attempt each question on your own before reviewing the given solution.

1. Which among the following is not an assumption of Indifference Curve?

- (A) Completeness
- (B) Transitivity
- (C) More is better than less
- (D) Unequal Satisfaction

Correct Answer: (D) Unequal Satisfaction

Solution:

Concept: An Indifference Curve represents different combinations of two goods that give the consumer the same level of satisfaction. It is based on certain assumptions of consumer behaviour.

Step 1: Understanding completeness.

Completeness means the consumer can compare any two bundles of

goods. The consumer can say whether one bundle is preferred, the other is preferred, or both give equal satisfaction. Hence, completeness is an assumption of indifference curve analysis.

Step 2: Understanding transitivity.

Transitivity means if a consumer prefers bundle A to B , and B to C , then the consumer must prefer A to C .

$$A > B, \quad B > C \Rightarrow A > C$$

So, transitivity is also a valid assumption.

Step 3: Understanding more is better than less.

The assumption “more is better than less” means that a rational consumer generally prefers more quantity of goods to less quantity, provided the goods are normal and desirable.

Step 4: Identifying the incorrect assumption.

An indifference curve shows equal satisfaction at all points on the same curve. Therefore, “Unequal Satisfaction” cannot be an assumption of an indifference curve.

$$\text{Same IC} \Rightarrow \text{Same satisfaction}$$

Hence, the correct answer is Unequal Satisfaction.

Quick Tip: An indifference curve always represents equal satisfaction. So, any option suggesting unequal satisfaction is not an assumption of indifference curve analysis.

2. Curve shows the allocation of goods between two consumers, or of two inputs between two production functions

- (A) Pareto Curve
- (B) Preference Curve
- (C) Contract Curve
- (D) Competitive Curve

Correct Answer: (C) Contract Curve

Solution:

Concept: A contract curve is used in welfare economics and general equilibrium analysis. It shows efficient allocations between two consumers or efficient allocation of two inputs between two firms.

Step 1: Understanding allocation between two consumers.

When two consumers exchange two goods, the Edgeworth box is used to show possible allocations. The contract curve shows all Pareto-efficient allocations between them.

Contract Curve = Set of Pareto-efficient allocations

Step 2: Understanding allocation between two production functions.

In production analysis, a contract curve can also show efficient allocation of two inputs between two producers or production functions.

Step 3: Eliminating wrong options.

A Pareto curve is not the standard name for this allocation curve.
A preference curve only shows consumer preferences.

A competitive curve is not the correct term in this context. Therefore, the curve that shows allocation of goods between two consumers or inputs between two production functions is the Contract Curve.

Quick Tip: Whenever the question talks about efficient allocation between two consumers or two producers in an Edgeworth box, the answer is Contract Curve.



3. Goods are substitutes when an increase in price of one leads to of other commodity

- (A) a decrease in demand
- (B) no change in demand
- (C) a decrease in price
- (D) an increase in demand

Correct Answer: (D) an increase in demand

Solution:

Concept: Substitute goods are those goods which can be used in place of each other. Examples include tea and coffee, Coke and Pepsi, butter and margarine.

Step 1: Understanding substitute goods.

If two goods are substitutes, then when the price of one good rises, consumers shift to the other good.

Price of Good X rises $\Rightarrow$ Demand for Good Y rises

Step 2: Applying the concept.

Suppose tea and coffee are substitutes. If the price of tea increases, many consumers will reduce tea consumption and increase coffee consumption.

$$P_{\text{tea}} \uparrow \Rightarrow D_{\text{coffee}} \uparrow$$

Step 3: Choosing the correct option.

The question asks what happens to the demand of the other commodity. Since substitute goods move in this way, demand for the other commodity increases. Therefore, the correct answer is an increase in demand.

Quick Tip: For substitute goods, price of one good and demand for the other good move in the same direction.

4. The term convex means that the slope of the indifference curve along the curve.}

- (A) decreases, up
- (B) increases, down
- (C) increases, increases
- (D) decreases, decreases

Correct Answer: (D) decreases, decreases

Solution:

Concept: An indifference curve is convex to the origin because of diminishing marginal rate of substitution. This means that as the consumer moves down along the curve, the slope becomes flatter.

Step 1: Understanding slope of indifference curve.

The slope of an indifference curve is known as the Marginal Rate of Substitution.

$$MRS = \frac{\Delta Y}{\Delta X}$$

It shows how much of good Y the consumer is willing to give up for one more unit of good X .

Step 2: Understanding movement along the curve.

As the consumer moves downward along the indifference curve, the consumer gets more of good X and less of good Y .

$$X \uparrow, \quad Y \downarrow$$

Step 3: Understanding diminishing MRS.

Because the consumer has more of X , the willingness to sacrifice Y for additional X decreases. Hence, the slope of the indifference curve decreases.

$$MRS \downarrow$$

Therefore, convexity means the slope of the indifference curve decreases as the consumer moves downward along the curve.

Quick Tip: Convex indifference curve means diminishing MRS. As the

consumer moves downward along the curve, the slope decreases.



5. A zero economic profit means that the firm is earning a

- (A) Normal profit
- (B) Abnormal profit
- (C) Below normal profit
- (D) Only loss

Correct Answer: (A) Normal profit

Solution:

Concept: Economic profit is calculated after considering both explicit cost and implicit cost. Normal profit is included as part of cost in economics.

Step 1: Understanding economic profit.

Economic profit is:

$$\text{Economic Profit} = \text{Total Revenue} - \text{Total Economic Cost}$$

Total economic cost includes explicit costs and implicit costs.

Step 2: Understanding zero economic profit.

If economic profit is zero, it means the firm is covering all its costs, including normal profit.

$$\text{Economic Profit} = 0$$

This does not mean the firm is making a loss. It means the firm is earning exactly normal profit.

Step 3: Eliminating wrong options.

Abnormal profit means economic profit is positive.

Below normal profit means the firm is not covering full economic cost.

Only loss is incorrect because zero economic profit does not mean loss. Therefore, zero economic profit means the firm earns normal profit.

Quick Tip: In economics, normal profit is included in cost. So, zero economic profit means the firm is earning normal profit.

6. Total cost curve of a firm is a

- (A) Flow concept
- (B) Stock concept
- (C) Neither flow nor stock
- (D) Either flow or stock

Correct Answer: (A) Flow concept

Solution:

Concept: A flow concept is measured over a period of time, while a stock concept is measured at a particular point of time.

Step 1: Understanding flow concept.

A flow variable has a time dimension. Examples are income per month, production per year, investment per year, and cost per period.

Flow = Measured over a period of time

Step 2: Understanding total cost.

Total cost of a firm is the cost incurred for producing output during a particular period.

$$TC = TFC + TVC$$

Here, total cost is related to production during a time period.

Step 3: Identifying the nature of total cost curve.

Since total cost is measured over a period of time, it is a flow concept. Therefore, the correct answer is Flow concept.

Quick Tip: Cost, income, output, consumption, and investment are flow concepts because they are measured over a period of time.

7. The efficient level of output is the level at which price of product is marginal social cost (MSC).

- (A) more than
- (B) lower than
- (C) equal to
- (D) uncertain

Correct Answer: (C) equal to

Solution:

Concept: Efficient output occurs where the value consumers place on the last unit equals the social cost of producing that last unit.

Step 1: Understanding marginal social cost.

Marginal Social Cost is the total cost to society of producing one additional unit of a good.

$$MSC = \text{Private marginal cost} + \text{External cost}$$

Step 2: Understanding efficiency condition.

Efficiency is achieved when price equals marginal social cost.

$$P = MSC$$

At this point, society is not overproducing or underproducing the good.

Step 3: Why other options are wrong.

If price is more than MSC, society may benefit from producing more.

If price is less than MSC, the good may be overproduced.

Therefore, the efficient condition is equality. Hence, the correct answer is equal to.

Quick Tip: The efficient output rule is $P = MSC$. This means the value of the last unit equals its social cost.

8. The following two characteristics define a particular type of market: A. Close substitute products are sold by firms B. Free entry and exit of firms. Select the correct option from below.

- (A) Perfect Competition
- (B) Monopoly
- (C) Oligopoly
- (D) Monopolistic Competition

Correct Answer: (D) Monopolistic Competition

Solution:

Concept: Monopolistic competition is a market structure in which many firms sell differentiated products that are close substitutes, and there is freedom of entry and exit.

Step 1: Understanding close substitute products.

In monopolistic competition, firms sell products that are similar but not identical. For example, different brands of toothpaste, soap, or restaurants.

Products = Differentiated but close substitutes

Step 2: Understanding free entry and exit.

Firms can enter the market if profits are attractive and leave the market if losses occur. This is also a feature of monopolistic competition.

Step 3: Eliminating other markets.

Perfect competition has homogeneous products.

Monopoly has only one seller.

Oligopoly has few large firms and entry barriers. Therefore, the correct market type is Monopolistic Competition.

Quick Tip: Monopolistic competition = many firms + product differentiation + close substitutes + free entry and exit.

9. In the short run, if planned purchase exceeds production

- (A) Unemployment rises
- (B) Inflation rises
- (C) Productivity falls
- (D) Wages falls

Correct Answer: (B) Inflation rises

Solution:

Concept: Planned purchase means planned demand or planned expenditure. Production means supply of goods and services. If planned purchase exceeds production, demand is greater than available supply.

Step 1: Understanding the situation.

The question says:

$$\text{Planned Purchase} > \text{Production}$$

This means people want to buy more goods than the economy is currently producing.

Step 2: Effect of excess demand.

When demand exceeds supply, there is pressure on available goods. Sellers may raise prices because buyers are competing for limited output.

Demand > Supply $\Rightarrow$ Price pressure

Step 3: Short-run result.

In the short run, production may not immediately adjust. Therefore, excess demand can lead to a rise in general price level.

Excess demand $\Rightarrow$ Inflation rises

Therefore, the correct answer is Inflation rises.

Quick Tip: When planned demand exceeds production, there is excess demand. Excess demand creates upward pressure on prices and inflation.



10. Which one of the following is not a principal macro-economic goal?

- (A) Full employment
- (B) Stable Inflation
- (C) Rising standard of living
- (D) Maximising firm level profit

Correct Answer: (D) Maximising firm level profit

Solution:

Concept: Macroeconomics studies the economy as a whole. Its goals are related to national income, employment, inflation, growth, and stability.

Step 1: Identifying macroeconomic goals.

Full employment is a macroeconomic goal because unemployment

affects the whole economy.

Stable inflation is also a macroeconomic goal because price stability is important for economic welfare.

Rising standard of living is related to economic growth and development.

Step 2: Understanding firm-level profit.

Maximising firm-level profit is a microeconomic objective. It is related to an individual firm, not the economy as a whole.

Firm profit maximisation = Microeconomic objective

Step 3: Selecting the correct answer.

Since the question asks which is not a principal macroeconomic goal, the answer is maximising firm level profit.

Quick Tip: Macroeconomic goals include full employment, price stability, growth, and rising living standards. Profit maximisation is a microeconomic goal of firms.

11. When there is no change in central banks holding of international reserves, a country's:

- (A) Trade balance always equals to zero
- (B) Current account balance always equals to zero
- (C) Capital account balance always equal to zero
- (D) Balance of payment always equal to zero

Correct Answer: (D) Balance of payment always equal to zero

Solution:

Concept: Balance of Payments records all economic transactions of a country with the rest of the world. It includes current account, capital account, financial account, and change in official reserves.

Step 1: Understanding balance of payments.

The overall balance of payments is adjusted through changes in foreign exchange reserves.

$$BOP = \text{Current Account} + \text{Capital/Financial Account} + \text{Change in Reserves}$$

Step 2: Applying the given condition.

The question says there is no change in central bank's international reserves.

$$\Delta \text{Reserves} = 0$$

This means the external accounts balance without requiring reserve adjustment.

Step 3: Understanding why other accounts need not be zero.

Trade balance may be surplus or deficit.

Current account may be surplus or deficit.

Capital account may also be surplus or deficit.

But the overall Balance of Payments must balance. Therefore, the correct answer is Balance of payment always equal to zero.

Quick Tip: Individual accounts like trade account or current account may show surplus or deficit, but the overall Balance of Payments always balances

after reserve adjustments.



12. Which one of following is not a measure of National Income of a country?

- (A) Income approach
- (B) Product approach
- (C) Expenditure approach
- (D) Investment approach

Correct Answer: (D) Investment approach

Solution:

Concept: National income can be measured using three main methods: income method, product method, and expenditure method.

Step 1: Understanding income approach.

The income approach measures national income by adding incomes earned by factors of production.

$$\text{National Income} = \text{Rent} + \text{Wages} + \text{Interest} + \text{Profit}$$

Step 2: Understanding product approach.

The product approach measures national income by adding the value of final goods and services produced in the economy.

Step 3: Understanding expenditure approach.

The expenditure approach measures national income by adding expenditure on final goods and services.

$$Y = C + I + G + (X - M)$$

Step 4: Identifying the incorrect method.

Investment approach is not a separate standard method of measuring national income. Investment is only a component of expenditure approach. Therefore, the correct answer is Investment approach.

Quick Tip: The three methods of national income measurement are income method, product method, and expenditure method.

13. The interest rate and price level are jointly determined by simultaneous equilibrium of:

- (A) Different goods market
- (B) Different capital market
- (C) Goods and money market
- (D) Different financial market

Correct Answer: (C) Goods and money market

Solution:

Concept: In macroeconomics, equilibrium values such as income, interest rate, and price level are studied through interaction between goods market and money market.

Step 1: Understanding goods market.

The goods market deals with production, consumption, investment, saving, and aggregate demand.

$$\text{Goods Market} \Rightarrow Y = C + I + G + (X - M)$$

Step 2: Understanding money market.

The money market deals with demand for money, supply of money, and interest rate.

$$\text{Money Market} \Rightarrow M^d = M^s$$

Step 3: Understanding simultaneous equilibrium.

Interest rate and price level are determined when both goods market and money market are in equilibrium together.

Goods Market Equilibrium + Money Market Equilibrium

Therefore, the correct answer is Goods and money market.

Quick Tip: In macroeconomics, goods market and money market equilibrium together help determine major variables such as income, interest rate, and price level.

14. If consumption is $C = 40 + 0.75Y$, Investment is $I = 60$, the output, consumption and saving at the equilibrium will be respectively

- (A) 400, 60, 340
- (B) 340, 400, 60
- (C) 400, 340, 60
- (D) 440, 300, 60

Correct Answer: (C) 400, 340, 60

Solution:

Concept: In a simple two-sector economy, equilibrium income is determined where output equals aggregate demand.

$$Y = C + I$$

Step 1: Write the given consumption and investment functions.

$$C = 40 + 0.75Y$$

$$I = 60$$

Step 2: Use equilibrium condition.

$$Y = C + I$$

Substitute the values:

$$Y = 40 + 0.75Y + 60$$

$$Y = 100 + 0.75Y$$

Step 3: Solve for equilibrium output.

$$Y - 0.75Y = 100$$

$$0.25Y = 100$$

$$Y = \frac{100}{0.25} = 400$$

Step 4: Find consumption.

$$C = 40 + 0.75(400)$$

$$C = 40 + 300 = 340$$

Step 5: Find saving.

$$S = Y - C$$

$$S = 400 - 340 = 60$$

Therefore, output, consumption and saving are:

$$400, 340, 60$$

Quick Tip: For a two-sector economy, use $Y = C + I$. After finding Y , calculate C , then saving using $S = Y - C$.

15. The permanent income hypothesis was propounded by:

- (A) Dussenbery
- (B) Brumberg
- (C) Modigliani
- (D) Friedman

Correct Answer: (D) Friedman

Solution:

Concept: The Permanent Income Hypothesis explains consumption behaviour. It says that people base their consumption not only on current income, but on expected long-term or permanent income.

Step 1: Understanding permanent income.

Permanent income means the normal or long-run expected income of an individual.

$$\text{Permanent Income} = \text{Expected long-term income}$$

Step 2: Understanding consumption behaviour.

According to this hypothesis, people try to keep consumption stable over time. Temporary changes in income do not change consumption as much as permanent changes.

Step 3: Identifying the economist.

The Permanent Income Hypothesis was developed by Milton Friedman. Therefore, the correct answer is Friedman.

Quick Tip: Permanent Income Hypothesis was given by Milton Friedman. Life Cycle Hypothesis is associated with Modigliani and Brumberg.

16. In a two sector model, let $C = 60 + 0.80Y$, $I = 116 - 2i$, $L = 0.20Y - 5i$ and $M = 120$. The LM equation will be

- (A) $i = 0.04Y - 24$
- (B) $i = 0.10Y + 88$
- (C) $i = 0.04Y + 24$
- (D) $i = 0.10Y - 88$

Correct Answer: (A) $i = 0.04Y - 24$

Solution:

Concept: The LM curve represents equilibrium in the money market. Money market equilibrium occurs when money demand equals money supply.

$$L = M$$

Step 1: Write the given money demand function.

$$L = 0.20Y - 5i$$

Money supply is:

$$M = 120$$

Step 2: Apply money market equilibrium.

$$L = M$$

$$0.20Y - 5i = 120$$

Step 3: Solve for i .

$$-5i = 120 - 0.20Y$$

Multiplying both sides by -1 :

$$5i = 0.20Y - 120$$

$$i = \frac{0.20Y - 120}{5}$$

$$i = 0.04Y - 24$$

Therefore, the LM equation is:

$$i = 0.04Y - 24$$

Quick Tip: For LM equation, use money market equilibrium $L = M$, then solve the equation for interest rate i .



17. The Phillips curve shows

- (A) A positive relationship between the real and nominal wage
- (B) An inverse relationship between rate of inflation and nominal wage
- (C) An inverse relationship between the rate of inflation and the rate of unemployment
- (D) A positive relationship between rate of inflation and real wage

Correct Answer: (C) An inverse relationship between the rate of inflation and the rate of unemployment

Solution:

Concept: The Phillips curve shows the relationship between inflation and unemployment. It is one of the important concepts in macroeconomics.

Step 1: Understanding the Phillips curve.

The Phillips curve states that there is a trade-off between inflation and unemployment in the short run.

Inflation $\uparrow \Rightarrow$ Unemployment $\downarrow$

Inflation $\downarrow \Rightarrow$ Unemployment $\uparrow$

Step 2: Understanding inverse relationship.

An inverse relationship means when one variable increases, the other variable decreases.

Inverse relationship = Opposite movement

Step 3: Applying to inflation and unemployment.

According to the Phillips curve, higher inflation is generally associated with lower unemployment in the short run. Therefore, the correct answer is an inverse relationship between the rate of inflation and the rate of unemployment.

Quick Tip: Phillips curve shows the short-run trade-off between inflation and unemployment.

18. Which institution formulates monetary policy?

- (A) Ministry of Finance
- (B) Central Bank
- (C) Private Bank
- (D) Stock Exchange

Correct Answer: (B) Central Bank

Solution:

Concept: Monetary policy is related to money supply, credit control, interest rates, and inflation management. It is formulated by the central bank of a country.

Step 1: Understanding monetary policy.

Monetary policy controls the quantity of money and credit in the economy.

Monetary Policy = Control of money supply and credit

Step 2: Role of central bank.

The central bank uses instruments like repo rate, reverse repo rate, CRR, SLR, and open market operations to regulate money supply.

Step 3: Eliminating wrong options.

The Ministry of Finance mainly deals with fiscal policy.

Private banks do not formulate national monetary policy.

Stock exchange deals with securities trading. Therefore, the institution that formulates monetary policy is the Central Bank.

Quick Tip: Fiscal policy is handled by the government, while monetary policy is formulated by the central bank.



19. The estimated regression equation is $\hat{y} = 60 + 5X$. What is the slope of this regression equation?

- (A) 12
- (B) 60
- (C) 5
- (D) 300

Correct Answer: (C) 5

Solution:

Concept: A simple linear regression equation is generally written as:

$$\hat{y} = a + bX$$

where a is the intercept and b is the slope.

Step 1: Compare the given equation with standard form.

Given equation is:

$$\hat{y} = 60 + 5X$$

Standard form is:

$$\hat{y} = a + bX$$

Step 2: Identify intercept and slope.

Here,

$$a = 60$$

and

$$b = 5$$

Step 3: Meaning of slope.

The slope tells how much $\hat{y}$ changes when X increases by one unit.

$$\Delta\hat{y} = 5 \text{ when } \Delta X = 1$$

Therefore, the slope of the regression equation is 5.

Quick Tip: In the regression equation $\hat{y} = a + bX$, the coefficient of X is the slope.



20. The coefficient of variation is a relative measure of variability. It measures the

- (A) Mode, mean
- (B) Standard deviation, mean
- (C) Quartile, Variance
- (D) Standard deviation, median

Correct Answer: (B) Standard deviation, mean

Solution:

Concept: Coefficient of variation is a relative measure of dispersion. It compares standard deviation with the mean.

Step 1: Write the formula of coefficient of variation.

$$CV = \frac{\sigma}{\bar{X}} \times 100$$

where,

σ = Standard deviation

$\bar{X}$ = Mean

Step 2: Understand what it measures.

Coefficient of variation measures standard deviation relative to the mean. It is useful for comparing variability of two or more series with different units or different averages.

Step 3: Select the correct pair.

Since coefficient of variation is based on standard deviation and mean, the correct blanks are:

Standard deviation, mean

Therefore, the correct answer is Standard deviation, mean.

Quick Tip: Coefficient of variation is calculated as $CV = \frac{\sigma}{\bar{X}} \times 100$. It compares standard deviation with mean.

21. Conditional Probability can be calculated by

$$(A) \quad P(B/A) = \frac{P(A \cap B)}{P(B)}$$

$$(B) \quad P(A/B) = \frac{P(A \cap B)}{P(A \cap B)}$$

$$(C) \quad P(A/B) = \frac{P(A \cap B)}{P(B)}$$

$$(D) \quad P(A/B) = \frac{P(A \cap B)}{P(A)}$$

Correct Answer: (C) $P(A/B) = \frac{P(A \cap B)}{P(B)}$

Solution:

Concept: Conditional probability means the probability of occurrence of one event when another event has already occurred.

Step 1: Understand the meaning of $P(A/B)$.

The notation $P(A/B)$ means probability of event A , given that event B has already occurred.

$P(A/B)$ = Probability of A when B is already known

Step 2: Use the formula of conditional probability.

The formula is:

$$P(A/B) = \frac{P(A \cap B)}{P(B)}$$

where,

$P(A \cap B)$ = Probability that both A and B occur

and

$P(B)$ = Probability of event B

Step 3: Compare with the given options.

The correct formula exactly matches option (C).

$$P(A/B) = \frac{P(A \cap B)}{P(B)}$$

Therefore, the correct answer is option (C).

Quick Tip: For conditional probability, always remember: $P(A/B) = \frac{P(A \cap B)}{P(B)}$.
The denominator is the event after the slash.

22. If $TC = \frac{Q^3}{3} + 20$, what will be MC ?

(A) $3Q^2$

(B) Q^2

(C) $Q/3$

(D) 20

Correct Answer: (B) Q^2

Solution:

Concept: Marginal Cost is the additional cost of producing one more unit of output. Mathematically, it is obtained by differentiating Total Cost with respect to output Q .

$$MC = \frac{d(TC)}{dQ}$$

Step 1: Write the given total cost function.

$$TC = \frac{Q^3}{3} + 20$$

Step 2: Differentiate total cost with respect to Q .

$$MC = \frac{d}{dQ} \left(\frac{Q^3}{3} + 20 \right)$$

Step 3: Differentiate each term separately.

$$\frac{d}{dQ} \left(\frac{Q^3}{3} \right) = \frac{1}{3} \cdot 3Q^2 = Q^2$$

and

$$\frac{d}{dQ}(20) = 0$$

Step 4: Find marginal cost.

$$MC = Q^2 + 0$$

$$MC = Q^2$$

Therefore, the correct answer is option (B).

Quick Tip: To find marginal cost from total cost, differentiate total cost with respect to output: $MC = \frac{dTC}{dQ}$.

23. Given the matrices, A and B as

$$A = \begin{bmatrix} 1 & 2 \\ -2 & 4 \end{bmatrix}, \quad B = \begin{bmatrix} 3 & -2 \\ 5 & 0 \end{bmatrix}$$

What will be AB ?

- (A) $[13 \quad -214 \quad 4]$
- (B) $[13 \quad 214 \quad 4]$
- (C) $[-13 \quad 214 \quad -4]$
- (D) $[13 \quad 2 - 14 \quad 4]$

Correct Answer: (A) $[13 \quad -214 \quad 4]$

Solution:

Concept: Matrix multiplication is done by multiplying rows of the first matrix with columns of the second matrix.

$$AB = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{bmatrix}$$

Step 1: Write the given matrices.

$$A = \begin{bmatrix} 1 & 2 \\ -2 & 4 \end{bmatrix}$$

$$B = \begin{bmatrix} 3 & -2 \\ 5 & 0 \end{bmatrix}$$

Step 2: Find first row first column element.

$$(1)(3) + (2)(5) = 3 + 10 = 13$$

Step 3: Find first row second column element.

$$(1)(-2) + (2)(0) = -2 + 0 = -2$$

Step 4: Find second row first column element.

$$(-2)(3) + (4)(5) = -6 + 20 = 14$$

Step 5: Find second row second column element.

$$(-2)(-2) + (4)(0) = 4 + 0 = 4$$

Step 6: Write the final product matrix.

$$AB = \begin{bmatrix} 13 & -2 \\ 14 & 4 \end{bmatrix}$$

Therefore, the correct answer is option (A).

Quick Tip: In matrix multiplication, multiply row elements of the first matrix with column elements of the second matrix and then add the products.

24. Derivative of Average cost $(AC) = 5 + \frac{2}{Q}$ is:

(A) $-\frac{2}{Q^2}$

(B) $\frac{2}{Q^2}$

(C) $\frac{2}{Q}$

(D) $\frac{1}{Q}$

Correct Answer: (A) $-\frac{2}{Q^2}$

Solution:

Concept: Derivative measures the rate of change of a function. Here, we have to differentiate the average cost function with respect to Q .

$$AC = 5 + \frac{2}{Q}$$

Step 1: Rewrite the function using power form.

$$AC = 5 + 2Q^{-1}$$

Step 2: Differentiate each term with respect to Q .

$$\frac{d}{dQ}(5) = 0$$

and

$$\frac{d}{dQ}(2Q^{-1}) = 2(-1)Q^{-2}$$

Step 3: Simplify the derivative.

$$\frac{d(AC)}{dQ} = -2Q^{-2}$$

$$\frac{d(AC)}{dQ} = -\frac{2}{Q^2}$$

Therefore, the correct answer is option (A).

Quick Tip: Convert fractions into powers before differentiating: $\frac{1}{Q} = Q^{-1}$.
Then use $\frac{d}{dQ}(Q^n) = nQ^{n-1}$.

25. On recommendation of which committee the Competition Act, 2002 was implemented?

- (A) Raghavan Committee
- (B) Raghuram Committee
- (C) Patel Committee
- (D) Kelkar Committee

Correct Answer: (A) Raghavan Committee

Solution:

Concept: The Competition Act, 2002 was enacted to promote competition in markets, prevent anti-competitive practices, and protect consumer interests.

Step 1: Understand the purpose of the Competition Act.

The Competition Act replaced the earlier MRTP Act framework and focused on preventing practices that harm competition.

Competition Act ⇒ Promotion of fair competition

Step 2: Recall the committee related to competition law.

The Raghavan Committee reviewed competition policy and recommended a modern competition law for India.

Step 3: Select the correct option.

The Competition Act, 2002 was implemented on the recommendation of the Raghavan Committee. Therefore, the correct answer is option (A).

Quick Tip: Remember: Competition Act, 2002 is associated with the Raghavan Committee.

26. The occupational structure of India at Independence was dominated by:

- (A) Manufacturing
- (B) Services
- (C) Agriculture
- (D) Manufacturing and Services

Correct Answer: (C) Agriculture

Solution:

Concept: Occupational structure refers to the distribution of working population among different sectors such as agriculture, manufacturing, and services.

Step 1: Understand India's economic condition at Independence.

At the time of Independence, India was mainly an agrarian economy. A large proportion of the population depended on agriculture for livelihood.

India at Independence $\Rightarrow$ Agriculture-dominated economy

Step 2: Compare with other sectors.

Manufacturing was weak because colonial policies did not encourage strong industrial development in India.

The services sector was also not the dominant source of employment at that time.

Step 3: Identify the dominant occupation.

Since most people were employed in agriculture, the occupational structure was dominated by agriculture. Therefore, the correct answer is option (C).

Quick Tip: At the time of Independence, India was primarily an agricultural economy, with most of the population dependent on agriculture.

27. The Heckscher-Ohlin theory states that the trade arises due to difference in

- (A) Technology
- (B) Tastes
- (C) Factor Endowments
- (D) Government Policies

Correct Answer: (C) Factor Endowments

Solution:

Concept: The Heckscher-Ohlin theory explains international trade on the basis of differences in factor endowments between countries.

Step 1: Understand factor endowments.

Factor endowments mean the availability of factors of production such as land, labour, capital, and natural resources.

$$\text{Factor Endowments} = \text{Land} + \text{Labour} + \text{Capital} + \text{Resources}$$

Step 2: Understand the Heckscher-Ohlin argument.

According to this theory, a country exports goods that use its abundant factor intensively and imports goods that use its scarce factor intensively.

Labour abundant country $\Rightarrow$ Exports labour-intensive goods

Capital abundant country $\Rightarrow$ Exports capital-intensive goods

Step 3: Select the correct answer.

The theory says that trade arises because countries differ in factor endowments. Therefore, the correct answer is option (C).

Quick Tip: Heckscher-Ohlin theory explains trade through differences in factor endowments, not mainly through technology or tastes.

28. In the Colonial period agriculture credit system was dominated by

- (A) Commercial Banks
- (B) Co-operatives
- (C) Indigenous Money Lenders
- (D) State owned banks

Correct Answer: (C) Indigenous Money Lenders

Solution:

Concept: Agricultural credit means loans or financial support given to farmers for cultivation, seeds, tools, irrigation, and other agricultural needs.

Step 1: Understand rural credit during colonial period.

During the colonial period, institutional credit facilities were very limited in rural India. Commercial banks and co-operatives did not have wide reach among farmers.

Step 2: Role of indigenous money lenders.

Farmers mostly depended on local money lenders for loans. These money lenders often charged high interest rates and exploited poor farmers.

Colonial rural credit ⇒ Dominance of money lenders

Step 3: Eliminating other options.

Commercial banks and state-owned banks were not dominant in rural agricultural credit during the colonial period. Co-operatives existed but had limited reach. Therefore, the correct answer is Indigenous Money Lenders.

Quick Tip: In colonial India, rural credit was dominated by indigenous money lenders because institutional banking was weak and limited.

29. Market failure arise in case of Public good due to

- (A) Over pricing
- (B) Excludability
- (C) Free Rider Problem
- (D) Rivalry

Correct Answer: (C) Free Rider Problem

Solution:

Concept: Public goods are goods that are non-rival and non-excludable. Examples include national defence, street lighting, public parks, and clean air.

Step 1: Understand non-rivalry and non-excludability.

Non-rivalry means one person's consumption does not reduce availability for others.

Non-excludability means people cannot easily be prevented from using the good.

$$\text{Public Good} = \text{Non-rival} + \text{Non-excludable}$$

Step 2: Understand the free rider problem.

Because public goods are non-excludable, people can enjoy the benefit without paying for them.

$$\text{Benefit without payment} = \text{Free rider problem}$$

Step 3: Link with market failure.

Private firms may not provide public goods efficiently because many people may refuse to pay while still enjoying the good. This causes market failure. Therefore, the correct answer is Free Rider Problem.

Quick Tip: Public goods create market failure mainly because of the free rider problem. People can benefit without paying.



30. Public debt becomes unsustainable when

- (A) Interest rate $>$ Growth rate
- (B) Growth rate $>$ Interest rate
- (C) Expenditure falls
- (D) Taxes rise

Correct Answer: (A) Interest rate $>$ Growth rate

Solution:

Concept: Public debt sustainability depends on the relationship between the interest rate on debt and the growth rate of the economy.

Step 1: Understand public debt.

Public debt is the borrowing of the government. The government has to pay interest on this debt.

Public Debt $\Rightarrow$ Interest payment burden

Step 2: Understand the growth rate.

The growth rate shows how fast the economy and national income are increasing. If the economy grows fast, it becomes easier to repay debt.

Step 3: Compare interest rate and growth rate.

If the interest rate is higher than the growth rate, debt grows faster than the economy.

$$r > g$$

where,

r = Interest rate

and

g = Growth rate

Step 4: Conclusion.

When $r > g$, public debt may become unsustainable because the repayment burden increases faster than income. Therefore, the correct answer is option (A).

Quick Tip: Public debt becomes risky when the interest rate on debt is greater than the growth rate of the economy.



31. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: Monopoly power is the ability to set price above marginal cost and that the amount by which price exceeds marginal cost depends inversely on the elasticity of demand. Reason R: Monopoly power is determined with the more number of firms in the market.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (C) A is correct but R is not correct

Solution:

Concept: Monopoly power means the ability of a firm to influence price. A monopolist can set price above marginal cost because it faces a downward sloping demand curve.

Step 1: Check Assertion A.

Assertion A says that monopoly power is the ability to set price above marginal cost. This is correct.

$$P > MC$$

Also, the gap between price and marginal cost depends inversely on the elasticity of demand. If demand is less elastic, monopoly power is higher.

Lower elasticity $\Rightarrow$ Higher monopoly power

So Assertion A is correct.

Step 2: Check Reason R.

Reason R says monopoly power is determined with more number of firms in the market. This is incorrect because more firms generally increase competition and reduce monopoly power.

More firms $\Rightarrow$ More competition $\Rightarrow$ Less monopoly power

Step 3: Choose the correct option.

Since Assertion A is correct but Reason R is incorrect, the correct answer is option (C).

Quick Tip: Monopoly power is higher when demand is less elastic and competition is weak. More firms usually reduce monopoly power.

32. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: There are increasing return to scale, if output become more than doubles when inputs are doubled. Reason R: Large scale of operation allows managers and workers to specialised in their tasks.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (A) Both A and R are correct and R is the correct explanation of A

Solution:

Concept: Returns to scale show how output changes when all inputs are increased in the same proportion.

Step 1: Understand increasing returns to scale.

Increasing returns to scale occur when output increases by more than the proportionate increase in inputs.

Inputs doubled $\Rightarrow$ Output more than doubled

So Assertion A is correct.

Step 2: Understand the role of large scale operations.

Large scale operations allow division of labour, specialisation, better management, and better use of machinery.

Large scale $\Rightarrow$ Specialisation $\Rightarrow$ Higher efficiency

So Reason R is also correct.

Step 3: Check whether R explains A.

Reason R explains why increasing returns to scale can occur.

Specialisation of managers and workers increases productivity, which

can make output rise more than proportionately. Therefore, both A and R are correct and R is the correct explanation of A.

Quick Tip: Increasing returns to scale means output increases more than the increase in inputs. Specialisation and economies of scale are major reasons for it.

33. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: The nominal interest rate can be misleading guide to cost of borrowing. Reason R: The real interest rate is nominal rate of interest plus the rate of inflation.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (C) A is correct but R is not correct

Solution:

Concept: Nominal interest rate is the stated interest rate, while real interest rate adjusts for inflation.

Step 1: Check Assertion A.

The nominal interest rate can be misleading because it does not show the effect of inflation. The true cost of borrowing depends on the real interest rate.

$$\text{Real Interest Rate} = \text{Nominal Interest Rate} - \text{Inflation Rate}$$

So Assertion A is correct.

Step 2: Check Reason R.

Reason R says that real interest rate is nominal interest rate plus inflation rate. This is incorrect. The correct relation is:

$$r = i - \pi$$

where,

r = Real interest rate

i = Nominal interest rate

π = Inflation rate

Step 3: Choose the correct option.

Since Assertion A is correct but Reason R is incorrect, the correct answer is option (C).

Quick Tip: Real interest rate is approximately nominal interest rate minus inflation rate: $r = i - \pi$.

34. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: In the Keynesian model equilibrium output is determined where aggregate demand equals aggregate supply. Reason R: Effective demand is the level of demand that will occur, given firm's expectation of profit.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (A) Both A and R are correct and R is the correct explanation of A

Solution:

Concept: In Keynesian economics, equilibrium output and employment are determined by effective demand. Effective demand occurs where aggregate demand equals aggregate supply.

Step 1: Check Assertion A.

The Keynesian model states that equilibrium output is determined at the point where aggregate demand equals aggregate supply.

$$AD = AS$$

So Assertion A is correct.

Step 2: Check Reason R.

Effective demand is the level of demand that entrepreneurs expect to be profitable. Firms produce output according to expected demand and expected profit.

Effective Demand $\Rightarrow$ Output and employment determination

So Reason R is also correct.

Step 3: Check whether R explains A.

Reason R explains why equilibrium output is determined through

effective demand. In the Keynesian model, firms decide output where expected profit is maximised, and this corresponds to the equality of aggregate demand and aggregate supply. Therefore, both A and R are correct and R is the correct explanation of A.

Quick Tip: In Keynesian theory, equilibrium output is determined by effective demand, where aggregate demand equals aggregate supply.



35. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: A random variable is a numerical description of the outcome of an experiment. Reason R: The particular numerical value of a random variable does not depend on the outcome of the experiment.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (C) A is correct but R is not correct

Solution:

Concept: A random variable assigns a numerical value to each possible outcome of a random experiment.

Step 1: Check Assertion A.

A random variable is a numerical description of the outcome of an experiment. This is correct. For example, if a coin is tossed twice, the random variable X may represent the number of heads.

$X = \text{Number of heads}$

Step 2: Check Reason R.

Reason R says the numerical value of a random variable does not depend on the outcome of the experiment. This is incorrect. Actually, the value of a random variable depends directly on the outcome.

Outcome $\Rightarrow$ Value of random variable

Step 3: Choose the correct option.

Since Assertion A is correct but Reason R is incorrect, the correct answer is option (C).

Quick Tip: A random variable assigns numbers to outcomes. Its value depends on which outcome occurs.

36. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: For a demand function $P = 60 - Q^2$ and at price $P = 44$, point elasticity of demand is -1.375 . Reason R: Demand is inelastic.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (C) A is correct but R is not correct

Solution:

Concept: Point elasticity of demand measures responsiveness of quantity demanded to a change in price at a particular point on the demand curve.

$$E_d = \frac{dQ}{dP} \cdot \frac{P}{Q}$$

Step 1: Find Q when $P = 44$.

Given,

$$P = 60 - Q^2$$

Put $P = 44$:

$$44 = 60 - Q^2$$

$$Q^2 = 16$$

$$Q = 4$$

Step 2: Find $\frac{dQ}{dP}$.

$$P = 60 - Q^2$$

Differentiate with respect to Q :

$$\frac{dP}{dQ} = -2Q$$

So,

$$\frac{dQ}{dP} = \frac{1}{-2Q}$$

At $Q = 4$:

$$\frac{dQ}{dP} = -\frac{1}{8}$$

Step 3: Calculate elasticity.

$$E_d = \frac{dQ}{dP} \cdot \frac{P}{Q}$$

$$E_d = -\frac{1}{8} \cdot \frac{44}{4}$$

$$E_d = -\frac{44}{32}$$

$$E_d = -1.375$$

So Assertion A is correct.

Step 4: Check Reason R.

Since $|E_d| = 1.375 > 1$, demand is elastic, not inelastic.

$$|E_d| > 1 \Rightarrow \text{Elastic demand}$$

Therefore, Reason R is incorrect. Hence, the correct answer is option (C).

Quick Tip: If $|E_d| > 1$, demand is elastic. If $|E_d| < 1$, demand is inelastic.

37. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: According to Ricardo's theory a country can benefit from trade even if it has an absolute disadvantage in the production of all the goods. Reason R: What matters for trade is comparative advantage which depends on relative not absolute cost differences.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (A) Both A and R are correct and R is the correct explanation of A

Solution:

Concept: Ricardo's theory of comparative advantage explains that countries can gain from trade even when one country is less efficient in producing all goods.

Step 1: Check Assertion A.

According to Ricardo, even if a country has an absolute disadvantage in all goods, it can still gain from trade by specialising in the good in which it has the least relative disadvantage. So Assertion A is correct.

Step 2: Check Reason R.

Reason R says that trade depends on comparative advantage, which is based on relative cost differences, not absolute cost differences.

Comparative Advantage $\Rightarrow$ Relative cost difference

This statement is also correct.

Step 3: Check whether R explains A.

Reason R explains Assertion A because the possibility of trade gains exists due to comparative advantage, even when absolute advantage is absent. Therefore, both A and R are correct and R is the correct explanation of A.

Quick Tip: Ricardo's theory is based on comparative advantage. Trade depends on relative cost differences, not absolute cost differences.

38. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: The primary cause of India's recurring balance of payment surplus with Britain during the colonial periods was 'Home-charges'. Reason R: 'Home-charges' included expenses such as pension to British officers, interest on India's Public debt held in Britain and salaries paid in England.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (A) Both A and R are correct and R is the correct explanation of A

Solution:

Concept: During the colonial period, India had to make several payments to Britain. These payments were called Home Charges.

Step 1: Understand Home Charges.

Home Charges included pensions to British officials, interest payments on public debt held in Britain, salaries paid in England, and other administrative expenses.

$$\text{Home Charges} = \text{Payments made from India to Britain}$$

Step 2: Check Assertion A.

India often had an export surplus with Britain, but this surplus was used to pay Home Charges. Therefore, Assertion A is correct.

Step 3: Check Reason R.

Reason R correctly describes the components of Home Charges. These charges created a continuous financial drain from India to Britain.

Step 4: Check whether R explains A.

Reason R explains Assertion A because the need to pay Home Charges was an important reason behind India's recurring balance of payment surplus with Britain. Therefore, both A and R are correct and R is the correct explanation of A.

Quick Tip: In colonial Indian economy, Home Charges were payments made to Britain and were an important part of the economic drain from India.

39. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. Assertion A: Labour relations in colonial industry were often exploitative. Reason R: Workers had low-wages, poor working conditions, and minimal labour rights.

- (A) Both A and R are correct and R is the correct explanation of A
- (B) Both A and R are correct but R is NOT the correct explanation of A
- (C) A is correct but R is not correct
- (D) A is not correct but R is correct

Correct Answer: (A) Both A and R are correct and R is the correct explanation of A

Solution:

Concept: Labour exploitation means workers are treated unfairly through low wages, long working hours, poor working conditions, and lack of rights.

Step 1: Check Assertion A.

In colonial industry, labour relations were often exploitative because workers had limited bargaining power and weak legal protection. So Assertion A is correct.

Step 2: Check Reason R.

Reason R says that workers had low wages, poor working conditions, and minimum labour rights. This is also correct.

Low wages + Poor conditions + Few rights $\Rightarrow$ Exploitation

Step 3: Check whether R explains A.

Reason R directly explains why labour relations were exploitative in colonial industry. Therefore, both A and R are correct and R is the correct explanation of A.

Quick Tip: Labour exploitation is indicated by low wages, poor working conditions, long hours, and lack of labour rights.



40. Arrange the following in correct order to solve a linear system $AX = T$ using matrix inversion. A. Verify that determinant of A is non-zero B. Compute the adjoint C. Compute A^{-1} D. Multiply $A^{-1}T$ to get X E. Set up the co-efficient Matrix A and constant Matrix T .

- (A) E, A, B, C, D
- (B) A, B, C, D, E
- (C) E, B, A, D, C
- (D) E, A, B, D, C

Correct Answer: (A) E, A, B, C, D

Solution:

Concept: A system of linear equations can be solved by matrix inversion if the coefficient matrix is invertible.

$$AX = T$$

If A^{-1} exists, then:

$$X = A^{-1}T$$

Step 1: Set up coefficient matrix and constant matrix.

First, write the system in matrix form by forming the coefficient matrix A and constant matrix T .

$$AX = T$$

So the first step is E.

Step 2: Check whether inverse exists.

The inverse of A exists only when determinant of A is non-zero.

$$|A| \neq 0$$

So the second step is A.

Step 3: Compute the adjoint.

To find inverse using the adjoint method, compute the adjoint of matrix A .

$$\text{adj}(A)$$

So the third step is B.

Step 4: Compute the inverse matrix.

The inverse is calculated as:

$$A^{-1} = \frac{\text{adj}(A)}{|A|}$$

So the fourth step is C.

Step 5: Find the solution matrix.

Finally, multiply both sides by A^{-1} :

$$X = A^{-1}T$$

So the fifth step is D. Therefore, the correct order is:

$$E, A, B, C, D$$

Quick Tip: To solve $AX = T$ by matrix inversion, first form A and T , check $|A| \neq 0$, find adjoint, find inverse, then calculate $X = A^{-1}T$.



41. Chronologically arrange the following famines of colonial India: A. Chalisa Famine, B. Great Famine, C. Orisa Famine, D. Rajputana Famine, E. Bihar Famine.

- (A) A, B, C, D, E
- (B) A, B, E, C, D
- (C) A, C, B, D, E
- (D) A, C, D, E, B

Correct Answer: (D) A, C, D, E, B

Solution:

Concept: Chronological arrangement means arranging historical events from the earliest to the latest according to the year of their occurrence.

Step 1: Identify the approximate period of each famine.

Chalisa Famine occurred in the late eighteenth century.

Orisa Famine occurred in 1866.

Rajputana Famine occurred after the Orisa famine.

Bihar Famine occurred in the early 1870s.

The Great Famine occurred later, around 1876--78.

Step 2: Arrange from oldest to newest.

The correct order is:

Chalisa Famine → Orisa Famine → Rajputana Famine → Bihar Famine → Great Famine

Step 3: Convert into given letters.

$A \rightarrow C \rightarrow D \rightarrow E \rightarrow B$

Therefore, the correct answer is:

A, C, D, E, B

Quick Tip: For chronological questions, first write the year or period of each event, then arrange them from earliest to latest.

42. Sequence the Pigouvian externality corrections: A. Identify the external cost, B. Measure marginal external damage, C. Compute marginal social cost, D. Tax equals to marginal external damage, E. Welfare improves after corrections.

- (A) A, B, C, D, E
- (B) A, B, C, E, D
- (C) A, E, C, B, D
- (D) C, A, B, D, E

Correct Answer: (A) A, B, C, D, E

Solution:

Concept: Pigouvian tax is imposed to correct negative externalities. It makes private decision makers consider the external cost imposed on society.

Step 1: Identify the external cost.

First, we must identify whether production or consumption creates an external cost.

A = Identify external cost

Step 2: Measure marginal external damage.

After identifying the external cost, we measure the extra damage caused by one additional unit.

B = Measure marginal external damage

Step 3: Compute marginal social cost.

Marginal social cost includes private marginal cost and marginal external damage.

$$MSC = MPC + MED$$

C = Compute marginal social cost

Step 4: Set Pigouvian tax equal to marginal external damage.

The corrective tax should be equal to marginal external damage.

Pigouvian Tax = MED

D = Tax equals marginal external damage

Step 5: Welfare improves after correction.

When the externality is internalized, overproduction is reduced and social welfare improves.

E = Welfare improves

Thus, the correct sequence is:

A, B, C, D, E

Quick Tip: Pigouvian correction follows: identify external cost, measure damage, compute social cost, impose tax, and improve welfare.

43. Sequence the following theories/concept earliest to latest: A. Ordinal Utility, B. Cardinal Utility, C. Revealed Preference, D. Slutsky decomposition, E. Modern behavioural economics.

- (A) A, B, C, D, E
- (B) A, B, D, C, E
- (C) A, D, B, C, E
- (D) B, A, C, D, E

Correct Answer: (D) B, A, C, D, E

Solution:

Concept: Consumer behaviour theories developed gradually from cardinal measurement of utility to ordinal analysis, revealed preference theory, decomposition analysis, and modern behavioural economics.

Step 1: Start with Cardinal Utility.

Cardinal utility is one of the earliest approaches. It assumes utility can be measured numerically.

$B = \text{Cardinal Utility}$

Step 2: Move to Ordinal Utility.

Ordinal utility came later and argued that consumers can rank preferences rather than measure utility numerically.

$A = \text{Ordinal Utility}$

Step 3: Then Revealed Preference.

Revealed preference theory studies consumer preference through actual choices.

$C = \text{Revealed Preference}$

Step 4: Then Slutsky decomposition.

Slutsky decomposition separates price effect into substitution effect and income effect.

$D =$ Slutsky decomposition

Step 5: Finally modern behavioural economics.

Modern behavioural economics includes psychological and behavioural factors in economic decision making.

$E =$ Modern behavioural economics

Therefore, the correct sequence is:

B, A, C, D, E

Quick Tip: Consumer theory generally moves from cardinal utility to ordinal utility, then to revealed preference and modern behavioural approaches.

44. Arrange the following models in a chronological order oldest to latest:

A. Cournot's Model, B. Bertrand Model, C. Edgeworth Model, D.

Chamberlin Model, E. Sweezy Kinked Demand Curve.

(A) A, B, C, D, E

(B) A, B, D, C, E

(C) A, C, B, D, E

(D) A, C, D, B, E

Correct Answer: (C) A, C, B, D, E

Solution:

Step 1: Understanding the Question:

- We must arrange the oligopoly / market-structure models from the oldest to the latest.

Step 2: Detailed Explanation:

- Cournot's model (A) is the earliest of these models.
- It is followed by the Edgeworth model (C), then the Bertrand model (B), as given in the NTA final answer key.
- Chamberlin's model (D) of monopolistic competition comes next, and Sweezy's kinked demand curve (E) is the latest.
- So the chronological order is A, C, B, D, E, which is Option (C).

Step 3: Final Answer:

- The correct option is (C) A, C, B, D, E.

Quick Tip: For oligopoly models, remember: Cournot comes first, followed by Bertrand and Edgeworth, then later Chamberlin and Sweezy.

45. Sequence the working of money multiplier in correct order: A. RBI injects High Powered Money, B. Banks keep required reserves, C. Banks receives deposits, D. Banks gives loans, E. Deposit expansion.

- (A) A, C, B, D, E
- (B) A, B, E, D, C
- (C) D, A, B, C, E
- (D) D, A, C, B, E

Correct Answer: (A) A, C, B, D, E

Solution:

Concept: Money multiplier explains how an initial injection of high-powered money creates multiple expansion of deposits through the banking system.

Step 1: RBI injects high-powered money.

The process starts when the central bank injects high-powered money.

$A = \text{RBI injects high powered money}$

Step 2: Banks receive deposits.

This money enters the banking system as deposits.

$C = \text{Banks receive deposits}$

Step 3: Banks keep required reserves.

Banks keep a fraction as required reserves.

$B = \text{Banks keep required reserves}$

Step 4: Banks give loans.

The remaining amount is lent out.

D = Banks give loans

Step 5: Deposit expansion takes place.

Loans create new deposits and money supply expands.

E = Deposit expansion

Thus, the correct sequence is:

A, C, B, D, E

Quick Tip: Money multiplier works through deposits, reserves, lending, and repeated deposit creation.

46. Sequence the evolution of money demand theories oldest to latest: A. Friedman's Restatement of quantity theory, B. Inventory theory of transactions demand, C. Cambridge Cash Balance approach, D. Liquidity Preference theory, E. Portfolio Balance Model.

- (A) B, A, C, E, D
- (B) A, B, C, D, E
- (C) D, C, A, B, E
- (D) C, D, B, E, A

Correct Answer: (D) C, D, B, E, A

Solution:

Concept: Theories of money demand developed from classical and Cambridge approaches to Keynesian liquidity preference and later modern portfolio and quantity theory restatements.

Step 1: Start with Cambridge Cash Balance approach.
Cambridge approach is one of the earlier theories of money demand.

C = Cambridge Cash Balance approach

Step 2: Then Liquidity Preference theory.
Keynes developed liquidity preference theory to explain demand for money.

D = Liquidity Preference theory

Step 3: Then Inventory theory of transactions demand.
Inventory approach explains money demand using inventory management logic.

B = Inventory theory

Step 4: Then Portfolio Balance Model.
Portfolio balance approach treats money as one asset among many assets.

E = Portfolio Balance Model

Step 5: Then Friedman's restatement.

Friedman restated the quantity theory in modern form.

A = Friedman's Restatement

Therefore, the correct order is:

C, D, B, E, A

Quick Tip: Money demand theory moves from Cambridge cash balance to Keynesian liquidity preference and then to modern portfolio and Friedman approaches.

47. The Transmission Mechanism process follow different stages: A. Change in real money supply, B. Spending adjusts to change in interest rate, C. Portfolio adjustment, D. Output adjusts to the change in aggregate demand, E. Change in asset price and interest rate.

- (A) A, B, C, D, E
- (B) A, C, E, B, D
- (C) B, C, A, E, D
- (D) E, B, C, D, A

Correct Answer: (B) A, C, E, B, D

Solution:

Concept: Monetary transmission mechanism explains how changes in money supply affect interest rate, spending, aggregate demand and output.

Step 1: Start with change in real money supply.

The process begins when real money supply changes.

A = Change in real money supply

Step 2: Portfolio adjustment takes place.

People adjust their portfolio between money, bonds and other assets.

C = Portfolio adjustment

Step 3: Asset price and interest rate change.

Portfolio changes affect asset prices and interest rates.

E = Change in asset price and interest rate

Step 4: Spending adjusts.

Investment and consumption spending respond to interest rate changes.

B = Spending adjustment

Step 5: Output adjusts.

Finally, aggregate demand changes and output adjusts.

$$D = \text{Output adjustment}$$

Therefore, the correct sequence is:

$$A, C, E, B, D$$

Quick Tip: Monetary transmission works through money supply, portfolio adjustment, interest rate changes, spending changes, and output adjustment.

48. Arrange the steps to compute the coefficient of variation CV in correct order: A. Compute standard deviation SD , B. Divide SD by mean $\bar{X}$, C. Compute Mean $\bar{X}$, D. Multiply the ratio of SD and mean with 100 to express in percentage, E. Report CV .

- (A) C, A, B, D, E
- (B) A, B, C, D, E
- (C) C, B, D, A, E
- (D) D, E, A, B, C

Correct Answer: (A) C, A, B, D, E

Solution:

Concept: Coefficient of variation is a relative measure of dispersion. It compares standard deviation with mean.

$$CV = \frac{SD}{\bar{X}} \times 100$$

Step 1: Compute mean.

First, calculate mean $\bar{X}$.

$C = \text{Compute mean}$

Step 2: Compute standard deviation.

Then calculate standard deviation.

$A = \text{Compute SD}$

Step 3: Divide SD by mean.

$$B = \frac{SD}{\bar{X}}$$

Step 4: Multiply by 100.

$$D = \frac{SD}{\bar{X}} \times 100$$

Step 5: Report CV.

Finally, report the coefficient of variation.

$E = \text{Report CV}$

Thus, the correct order is:

C, A, B, D, E

Quick Tip: To calculate *CV*, remember: Mean first, SD second, divide SD by mean, multiply by 100, then report the result.



49. Arrange the following as per their establishment oldest to latest: A. Textile mills in Bombay, B. Jute Industry in Bengal, C. Iron and Steel Industry in Jamshedpur, D. Coal Mining in Raniganj, E. Railway as Industrial Catalyst.

- (A) A, B, C, D, E
- (B) E, A, C, D, B
- (C) E, B, A, C, D
- (D) E, A, B, D, C

Correct Answer: (D) E, A, B, D, C

Solution:

Concept: Industrial development in colonial India occurred gradually through railways, textile mills, jute industry, coal mining and later iron and steel industry.

Step 1: Railway as industrial catalyst.

Railways played a major role in connecting markets and supporting industrial growth.

E = Railway as Industrial Catalyst

Step 2: Bombay textile mills.

Cotton textile mills in Bombay developed as an important early modern industry.

$A = \text{Textile mills in Bombay}$

Step 3: Jute industry in Bengal.

The jute industry developed strongly in Bengal.

$B = \text{Jute Industry in Bengal}$

Step 4: Coal mining in Raniganj.

Coal mining supported railway and industrial expansion.

$D = \text{Coal Mining in Raniganj}$

Step 5: Iron and Steel in Jamshedpur.

Iron and steel industry in Jamshedpur developed later as a major modern industry.

$C = \text{Iron and Steel Industry in Jamshedpur}$

Therefore, the correct order is:

E, A, B, D, C

Quick Tip: For industrial chronology, connect each industry with its role in colonial industrial development and arrange from earliest industrial catalyst

to later heavy industry.



50. Sequence the evolution of taxation principles in modern Economics:
A. Ability to pay principle, B. Benefit principle, C. Optimal taxation theory,
D. Equity and efficiency consideration, E. Dead weight loss concept.

(A) B, A, D, E, C

(B) A, B, C, D, E

(C) C, D, A, E, B

(D) B, D, A, C, E

Correct Answer: (A) B, A, D, E, C

Solution:

Concept: Taxation principles evolved from simple benefit-based ideas to modern optimal taxation theory.

Step 1: Benefit principle.

The benefit principle says taxes should be paid according to benefits received from government services.

B = Benefit principle

Step 2: Ability to pay principle.

Later, the ability to pay principle emphasized that people should pay taxes according to their capacity.

A = Ability to pay principle

Step 3: Equity and efficiency considerations.

Modern tax systems consider both fairness and efficiency.

$D = \text{Equity and efficiency}$

Step 4: Dead weight loss concept.

Taxation may create welfare loss, known as dead weight loss.

$E = \text{Dead weight loss}$

Step 5: Optimal taxation theory.

Optimal taxation tries to design taxes that balance revenue, equity and efficiency.

$C = \text{Optimal taxation theory}$

Therefore, the correct order is:

B, A, D, E, C

Quick Tip: Tax theory moves from benefit and ability-to-pay principles to equity-efficiency analysis, deadweight loss, and optimal taxation.

51. Arrange the following in chronological oldest to latest order: A. Introduction of Income tax in India, B. Constitutional Amendment to establish finance commission, C. GST in India, D. FRBM Act, E. 16th Finance Commission.

(A) A, B, D, C, E

(B) A, C, D, B, E

(C) B, A, D, C, E

(D) B, A, E, C, D

Correct Answer: (A) A, B, D, C, E

Solution:

Concept: Chronological order means arranging fiscal events from earliest to latest.

Step 1: Income tax in India.

Income tax was introduced in India during the colonial period.

A = Introduction of Income tax

Step 2: Finance Commission provision.

Finance Commission is a constitutional body established under the constitutional framework.

B = Finance Commission provision

Step 3: FRBM Act.

The FRBM Act came later to promote fiscal discipline.

$D = \text{FRBM Act}$

Step 4: GST in India.

GST was introduced after the FRBM Act.

$C = \text{GST in India}$

Step 5: 16th Finance Commission.

The 16th Finance Commission is the latest among the given events.

$E = \text{16th Finance Commission}$

Thus, the correct sequence is:

A, B, D, C, E

Quick Tip: For fiscal chronology, remember: Income tax came first, then Finance Commission, then FRBM, then GST, and finally the 16th Finance Commission.

52. Consider the following statements: A. Consumer surplus equals area under demand curve above price line, B. Marshall's measure assume constant marginal utility of money, C. Hicksian compensatory variation is better welfare measure than Marshallian surplus, D. Consumer surplus is always zero for perfectly elastic demand, E. Price elasticity of demand is unitary when total revenue TR is maximum.

- (A) A, B, C, D Only
- (B) A, B, E, D Only
- (C) A, B, C, E Only
- (D) A, B, C, D, E

Correct Answer: (D) A, B, C, D, E

Solution:

Concept: Consumer surplus and elasticity are important concepts in welfare economics and demand analysis.

Step 1: Check statement A.

Consumer surplus is the area below demand curve and above price line.

A = Correct

Step 2: Check statement B.

Marshallian consumer surplus assumes constant marginal utility of money.

B = Correct

Step 3: Check statement C.

Hicksian compensatory variation is considered a better welfare measure because it adjusts for utility changes more carefully.

C = Correct

Step 4: Check statement D.

For perfectly elastic demand, price is fixed and consumer surplus is treated as zero in the standard diagram.

$D = \text{Correct}$

Step 5: Check statement E.

Total revenue is maximum when price elasticity of demand is unitary.

$$E_d = 1$$

$E = \text{Correct}$

Therefore, all statements are correct.

Quick Tip: Consumer surplus is area under demand curve above price, and total revenue is maximum when demand elasticity is unitary.



53. Consider the statements about monopolistic competition: A. Firms faces downward sloping demand curve, B. Excess capacity is a long run property, C. Firm is price taker, D. Product differentiations is essential in this market, E. Selling costs are significant.

- (A) A, B, D, E Only
- (B) A, B, C, D Only
- (C) A, B, D Only
- (D) A, B, C, D, E

Correct Answer: (A) A, B, D, E Only

Solution:

Concept: Monopolistic competition is a market structure with many firms, differentiated products, selling costs and some control over price.

Step 1: Check statement A.

Firms face downward sloping demand curve because products are differentiated.

A = Correct

Step 2: Check statement B.

Excess capacity is a long-run property of monopolistic competition.

B = Correct

Step 3: Check statement C.

A firm is not a price taker. It has some control over price.

C = Incorrect

Step 4: Check statement D.

Product differentiation is essential in monopolistic competition.

D = Correct

Step 5: Check statement E.

Selling costs are significant because firms advertise to differentiate products.

E = Correct

Thus, correct statements are:

A, B, D, E

Quick Tip: Monopolistic competition has product differentiation, selling cost, downward sloping demand and excess capacity. Firms are not price takers.



54. Consider the following statements: A. Average Fixed Cost always decline with increase in output, B. Marginal Cost intersects AVC and ATC at their minimum point, C. Learning Curve implies cost rises with accumulated output, D. In the long run, all costs are variable, E. Longrun Average Cost is envelope of Shortrun Average Cost curves.

- (A) A, B, C, D Only
- (B) A, B, D, E Only
- (C) A, B, C, E Only
- (D) A, B, C Only

Correct Answer: (B) A, B, D, E Only

Solution:

Concept: Cost curves show the relationship between cost and output in short run and long run.

Step 1: Check statement A.

Average fixed cost falls as output increases because fixed cost is spread over more units.

$$AFC = \frac{TFC}{Q}$$

A = Correct

Step 2: Check statement B.

Marginal cost cuts AVC and ATC at their minimum points.

B = Correct

Step 3: Check statement C.

Learning curve usually implies cost falls with accumulated output due to experience, not rises.

C = Incorrect

Step 4: Check statement D.

In the long run, all factors and costs are variable.

D = Correct

Step 5: Check statement E.

Long-run average cost curve is the envelope of short-run average cost curves.

E = Correct

Thus, correct statements are:

A, B, D, E

Quick Tip: Learning curve usually means cost decreases with experience. LAC is the envelope of SAC curves.

55. Money has following functions: A. Medium of Exchange, B. Unit of account, C. Store of value, D. Measure of Economic Uncertainty, E. Measure of Happiness.

- (A) A, B, C Only
- (B) A, B, C, D Only
- (C) A, C, D, E Only
- (D) A, D, E Only

Correct Answer: (A) A, B, C Only

Solution:

Concept: Money performs several basic functions in an economy. The main functions are medium of exchange, unit of account, store of value and standard of deferred payment.

Step 1: Medium of exchange.

Money removes the difficulty of barter by acting as a medium of exchange.

A = Correct

Step 2: Unit of account.

Money is used to measure and compare the value of goods and services.

B = Correct

Step 3: Store of value.

Money can be saved and used in future.

C = Correct

Step 4: Reject incorrect functions.

Money is not a measure of economic uncertainty or happiness.

D, E = Incorrect

Therefore, correct functions are:

A, B, C

Quick Tip: Main functions of money are medium of exchange, unit of account and store of value.



56. Consider the following statements: A. IS curve shifts to right when government's expenditure rises, B. LM Curve shifts to left when money supply falls, C. Interactions of IS-LM curve determines equilibrium of interest rate and income, D. A rise in price level shift LM curve to left, E. Liquidity trap makes LM curve vertical.

- (A) A, B, C, D Only
- (B) A, B, D, E Only
- (C) A, B, C, E Only
- (D) B, C, D, E Only

Correct Answer: (A) A, B, C, D Only

Solution:

Concept: IS-LM model explains equilibrium in goods market and money market.

Step 1: Check statement A.

Increase in government expenditure increases aggregate demand and shifts IS curve right.

A = Correct

Step 2: Check statement B.

Fall in money supply shifts LM curve left because less money is available.

$B = \text{Correct}$

Step 3: Check statement C.

Intersection of IS and LM determines equilibrium income and interest rate.

$C = \text{Correct}$

Step 4: Check statement D.

Rise in price level reduces real money supply and shifts LM curve left.

$D = \text{Correct}$

Step 5: Check statement E.

Liquidity trap makes LM curve horizontal, not vertical.

$E = \text{Incorrect}$

Therefore, correct statements are:

A, B, C, D

Quick Tip: Liquidity trap makes the LM curve horizontal because interest rate is very low and people prefer holding money.

57. Select correct answers in regard of Phillips curve: A. The short run Phillips curve is negative sloped, B. Long run Phillips curve is steeper in slope than short run curve, C. Over the time Phillips curve has tendency to be parallel to x-axis, D. The Phillips curve shows positive relationship between inflation and money, E. Inflation expectations plays a major role in wage negotiations.

(A) A, B, C Only

(B) A, B, E Only

(C) A, C, D, E Only

(D) A, B, C, D, E

Correct Answer: (B) A, B, E Only

Solution:

Concept: Phillips curve explains the relationship between inflation and unemployment. In the short run, it shows a trade-off between inflation and unemployment.

Step 1: Check statement A.

Short-run Phillips curve is negatively sloped.

A = Correct

Step 2: Check statement B.

Long-run Phillips curve is steeper than the short-run curve and is often treated as vertical.

B = Correct

Step 3: Check statement C.

Phillips curve does not tend to become parallel to x-axis over time.

Long-run curve is generally vertical.

C = Incorrect

Step 4: Check statement D.

Phillips curve is about inflation and unemployment, not directly inflation and money.

D = Incorrect

Step 5: Check statement E.

Inflation expectations are important in wage negotiations.

E = Correct

Therefore, correct statements are:

A, B, E

Quick Tip: Short-run Phillips curve is downward sloping, while long-run Phillips curve is generally vertical. Expectations are important in modern Phillips curve analysis.

58. Consider the following question for measures of dispersion: A. Range is sensitive to extreme, B. Coefficient of variation CV is unit free, C. Quartile deviation is $(Q_3 - Q_1)/2$, D. Inter Quartile range $IQR = Q_3 - Q_1$, E. Variance is square root of standard deviation.

- (A) A, B and C Only
- (B) A, B, C and D Only
- (C) A, B, C, D, E
- (D) B, C, D and E Only

Correct Answer: (B) A, B, C and D Only

Solution:

Concept: Measures of dispersion describe the spread or variability of data.

Step 1: Check statement A.

Range depends on the highest and lowest values, so it is sensitive to extreme values.

$A = \text{Correct}$

Step 2: Check statement B.

Coefficient of variation is unit free because it is a relative measure.

$$CV = \frac{SD}{\bar{X}} \times 100$$

$B = \text{Correct}$

Step 3: Check statement C.

Quartile deviation is commonly written as half of the difference between upper and lower quartiles.

$$QD = \frac{Q_3 - Q_1}{2}$$

So the intended concept is quartile deviation.

C = Correct as per intended formula concept

Step 4: Check statement D.

Interquartile range is:

$$IQR = Q_3 - Q_1$$

D = Correct

Step 5: Check statement E.

Variance is not square root of standard deviation. Rather, standard deviation is the square root of variance.

$$SD = \sqrt{\text{Variance}}$$

E = Incorrect

Therefore, correct statements are:

A, B, C, D

Quick Tip: Remember: $IQR = Q_3 - Q_1$, $QD = \frac{Q_3 - Q_1}{2}$, and $SD = \sqrt{\text{Variance}}$.

59. Choose the correct answer from the options given below: A. Slope shows in regression equation change in y per unit, B. Probabilities always remain positive, C. Sampling distribution = distribution of sample statistics, D. OLS minimizes the squared error, E. Convenience sampling is probability sampling.

- (A) A, C and D Only
- (B) A, B and E Only
- (C) A, B, C and D Only
- (D) A, B and D Only

Correct Answer: (A) A, C and D Only

Solution:

Concept: Regression, probability, sampling distribution and OLS are basic concepts of statistics and econometrics.

Step 1: Check statement A.

Slope in a regression equation shows the change in dependent variable y per unit change in independent variable.

A = Correct

Step 2: Check statement B.

Probability can be zero, so it is not always strictly positive. It is non-negative.

$$0 \leq P(A) \leq 1$$

$B = \text{Incorrect}$

Step 3: Check statement C.

Sampling distribution is the probability distribution of a sample statistic.

$C = \text{Correct}$

Step 4: Check statement D.

OLS minimizes the sum of squared errors.

$D = \text{Correct}$

Step 5: Check statement E.

Convenience sampling is non-probability sampling.

$E = \text{Incorrect}$

Therefore, correct statements are:

A, C, D

Quick Tip: OLS minimizes squared errors, and convenience sampling is a non-probability sampling method.

60. Consider the following statement in context of Linear Programming Problem *LPP*: A. It has an objective function, B. It allows negative values of decision variable always, C. Its Feasible region is usually a polygon, D. Its Constraint must be linear, E. Its Optimal solution lies at corner point.

- (A) A, C, D Only
- (B) A, B, D, E Only
- (C) A, C, E Only
- (D) A, B, C, D, E

Correct Answer: (A) A, C, D Only

Solution:

Concept: Linear Programming Problem is a mathematical technique used to optimize an objective function subject to linear constraints.

Step 1: Check statement A.

Every LPP has an objective function which is either maximized or minimized.

A = Correct

Step 2: Check statement B.

LPP usually includes non-negativity restrictions. Decision variables are generally not allowed to be negative.

$$x \geq 0, \quad y \geq 0$$

B = Incorrect

Step 3: Check statement C.

In two-variable graphical LPP, feasible region is generally a polygon formed by linear inequalities.

$C = \text{Correct}$

Step 4: Check statement D.

Constraints must be linear in a linear programming problem.

$D = \text{Correct}$

Step 5: Check statement E.

The optimal solution is associated with corner points in graphical method, but among the given option combinations, the suitable correct set given is A, C, D . Therefore, the correct answer is:

A, C, D

Quick Tip: In LPP, the objective function and constraints are linear, and the feasible region is formed by linear inequalities.



61. Select the correct statements: A. Fiscal Deficit = Budget Deficit - Interest Payments, B. Revenue Deficit = Revenue Expenditure - Revenue Receipts, C. Budget Deficit = Total Expenditure - Total Receipts, D. Primary Deficit = Fiscal Deficit + Interest Payments, E. Current Deficit = Budget Deficit + Borrowings.

- (A) B, C Only
- (B) A, B, C Only
- (C) A, C, D, E Only
- (D) A, D, E Only

Correct Answer: (A) B, C Only

Solution:

Concept: Fiscal deficit, revenue deficit, budget deficit and primary deficit are important budgetary concepts. Each deficit has a specific formula, so every statement must be checked separately.

Step 1: Check Statement A.

Statement A says:

$$\text{Fiscal Deficit} = \text{Budget Deficit} - \text{Interest Payments}$$

This is incorrect. The correct formula is:

$$\text{Primary Deficit} = \text{Fiscal Deficit} - \text{Interest Payments}$$

So statement A is incorrect.

Step 2: Check Statement B.

Revenue deficit is the excess of revenue expenditure over revenue receipts.

$$\text{Revenue Deficit} = \text{Revenue Expenditure} - \text{Revenue Receipts}$$

So statement B is correct.

Step 3: Check Statement C.

Budget deficit is generally defined as the excess of total expenditure over total receipts.

$$\text{Budget Deficit} = \text{Total Expenditure} - \text{Total Receipts}$$

So statement C is correct.

Step 4: Check Statement D.

Statement D says:

$$\text{Primary Deficit} = \text{Fiscal Deficit} + \text{Interest Payments}$$

This is incorrect because interest payments are subtracted from fiscal deficit, not added.

$$\text{Primary Deficit} = \text{Fiscal Deficit} - \text{Interest Payments}$$

Step 5: Check Statement E.

Current deficit is not defined as budget deficit plus borrowings. Hence statement E is also incorrect. Therefore, only statements B and C are correct.

Quick Tip: Always remember: $\text{Primary Deficit} = \text{Fiscal Deficit} - \text{Interest Payments}$ and $\text{Revenue Deficit} = \text{Revenue Expenditure} - \text{Revenue Receipts}$.

62. RBI controls the credit in economy by: A. Change in CRR, B. Change in SLR, C. Change in Bank Rate, D. Open market operations, E. Credit Rationing.

(A) A, B, C Only

(B) A, B, E Only

(C) A, B, C, D, E

(D) A, D, E Only

Correct Answer: (C) A, B, C, D, E

Solution:

Concept: The Reserve Bank of India controls credit through quantitative and qualitative instruments of monetary policy.

Step 1: Understand CRR.

CRR means Cash Reserve Ratio. When RBI changes CRR, the amount of cash banks must keep with RBI changes.

Higher CRR $\Rightarrow$ Lower credit creation

So A is correct.

Step 2: Understand SLR.

SLR means Statutory Liquidity Ratio. It requires banks to maintain a certain portion of deposits in liquid assets.

Higher SLR $\Rightarrow$ Less funds for lending

So B is correct.

Step 3: Understand Bank Rate.

Bank Rate affects the cost of borrowing from RBI. A higher bank rate reduces credit expansion.

Higher Bank Rate $\Rightarrow$ Costly credit

So C is correct.

Step 4: Understand Open Market Operations.

Open market operations involve buying and selling government securities. Selling securities reduces money supply and credit availability. So D is correct.

Step 5: Understand Credit Rationing.

Credit rationing is a qualitative method through which RBI controls the amount and direction of credit. So E is also correct. Therefore, RBI controls credit using all the given methods.

Quick Tip: RBI controls credit through CRR, SLR, Bank Rate, Open Market Operations, repo rate and qualitative tools like credit rationing.

63. Select the correct pair of five year plans and its time range. A. First Plan - (1951-56), B. Fourth Plan - (1972-77), C. Ninth Plan - (1997-2002), D. Tenth Plan - (2002-2007), E. Eleventh Plan - (2007-2012).

- (A) A, B, C Only
- (B) A, B, C, D Only
- (C) A, C, D, E Only
- (D) A, B, D, E Only

Correct Answer: (C) A, C, D, E Only

Solution:

Concept: Five Year Plans in India were implemented for planned economic development. Each plan had a specific time period.

Step 1: Check First Plan.

The First Five Year Plan was from 1951 to 1956.

A = Correct

Step 2: Check Fourth Plan.

The Fourth Five Year Plan was from 1969 to 1974, not 1972 to 1977.

B = Incorrect

Step 3: Check Ninth Plan.

The Ninth Five Year Plan was from 1997 to 2002.

C = Correct

Step 4: Check Tenth Plan.

The Tenth Five Year Plan was from 2002 to 2007.

D = Correct

Step 5: Check Eleventh Plan.

The Eleventh Five Year Plan was from 2007 to 2012.

E = Correct

Thus, the correct statements are:

A, C, D, E

Quick Tip: Remember: First Plan 1951 – 56, Ninth Plan 1997 – 2002, Tenth Plan 2002 – 07, and Eleventh Plan 2007 – 12.

64.

Match List-I with List-II.

List-I	List-II
A. Contract Curve	I. Shows all efficient allocation of goods
B. Utility Possibility Frontier	II. Shows all efficient allocations of resources measured in term of utility
C. Social Welfare Function	III. Measure the well being of society as whole in term of utilities of individual
D. Production Possibility Frontier	IV. Shows the combination of two goods that can be produced with given input

- (A) A-I, B-II, C-III, D-IV
(B) A-I, B-III, C-II, D-IV
(C) A-I, B-II, C-IV, D-III
(D) A-I, B-IV, C-III, D-II

Correct Answer: (A) A-I, B-II, C-III, D-IV

Solution:

Concept: These terms are important in welfare economics and production theory. Each concept describes a different type of efficiency or possibility.

Step 1: Match Contract Curve.

The contract curve shows all Pareto-efficient allocations of goods between consumers.

$$A \rightarrow I$$

Step 2: Match Utility Possibility Frontier.

The utility possibility frontier shows efficient allocations measured in terms of utility levels of individuals.

$$B \rightarrow II$$

Step 3: Match Social Welfare Function.

The social welfare function measures the welfare of society as a whole using the utilities of individuals.

$$C \rightarrow III$$

Step 4: Match Production Possibility Frontier.

The production possibility frontier shows combinations of two goods that can be produced using available resources.

$$D \rightarrow IV$$

Therefore, the correct matching is:

$$A - I, B - II, C - III, D - IV$$

Quick Tip: Contract curve is linked with efficient allocation, utility possibility frontier with utility combinations, and production possibility frontier with production combinations.

65.

Match List-I with List-II.

List-I	List-II
A. Efficiency in exchange	I. Externalities
B. Efficiency in the use of inputs	II. $MRS_{xy}^A = MRS_{xy}^B$
C. Efficiency in the output market	III. $MRTS_{LK}^X = MRTS_{LK}^Y$
D. Market failure	IV. $MRT_{xy} = MRS_{xy}$

- (A) A-II, B-III, C-IV, D-I
- (B) A-II, B-IV, C-I, D-III
- (C) A-IV, B-II, C-I, D-III
- (D) A-III, B-IV, C-II, D-I

Correct Answer: (A) A-II, B-III, C-IV, D-I

Solution:

Concept: General equilibrium efficiency has three main conditions: efficiency in exchange, efficiency in production, and efficiency in product mix.

Step 1: Match efficiency in exchange.

Efficiency in exchange occurs when the marginal rate of substitution is equal for all consumers.

$$MRS_{xy}^A = MRS_{xy}^B$$

So,

$$A \rightarrow II$$

Step 2: Match efficiency in use of inputs.

Efficiency in the use of inputs occurs when marginal rate of technical substitution is equal across firms.

$$MRTS_{LK}^X = MRTS_{LK}^Y$$

So,

$$B \rightarrow III$$

Step 3: Match efficiency in output market.

Efficiency in output market requires:

$$MRT_{xy} = MRS_{xy}$$

So,

$$C \rightarrow IV$$

Step 4: Match market failure.

Externalities are an important cause of market failure.

$$D \rightarrow I$$

Therefore, the correct matching is:

$$A - II, B - III, C - IV, D - I$$

Quick Tip: Efficiency in exchange uses *MRS*, efficiency in production uses *MRTS*, and product-mix efficiency uses $MRT = MRS$.

66.

Match List-I with List-II.

List-I	List-II
A. Marginal rate of Substitutions	I. Slope of Budget Line
B. Budget Line	II. Ratio of Marginal Utility
C. Indifference Curve	III. Locus of equal utility
D. Price Ratio	IV. Constraints based on income

- (A) A-II, B-IV, C-III, D-I
- (B) A-II, B-III, C-IV, D-I
- (C) A-IV, B-III, C-II, D-I
- (D) A-II, B-I, C-III, D-IV

Correct Answer: (A) A-II, B-IV, C-III, D-I

Solution:

Concept: Consumer equilibrium uses concepts like marginal rate of substitution, budget line, indifference curve and price ratio.

Step 1: Match Marginal Rate of Substitution.

Marginal rate of substitution is the ratio of marginal utilities of two goods.

$$MRS_{xy} = \frac{MU_x}{MU_y}$$

So,

$$A \rightarrow II$$

Step 2: Match Budget Line.

Budget line shows combinations of goods that a consumer can buy with given income and prices. Hence, it is a constraint based on income.

$$B \rightarrow IV$$

Step 3: Match Indifference Curve.

An indifference curve is the locus of combinations giving equal utility.

$$C \rightarrow III$$

Step 4: Match Price Ratio.

The slope of the budget line is determined by the price ratio.

$$\text{Slope of Budget Line} = -\frac{P_x}{P_y}$$

So,

$$D \rightarrow I$$

Therefore, the correct matching is:

$$A - II, B - IV, C - III, D - I$$

Quick Tip: MRS is the ratio of marginal utilities, while the price ratio gives the slope of the budget line.



67.

Match List-I with List-II.

List-I	List-II
A. Classical Model	I. Supply creates its own demand
B. Effective Demand	II. Level of aggregate demand where planned saving = planned investment
C. Say's law	III. Output determined by aggregate demand in short run
D. Keynesian Model	IV. Price and wage flexible full employment assumed

- (A) A-III, B-IV, C-II, D-I
(B) A-IV, B-I, C-II, D-III
(C) A-IV, B-II, C-I, D-III
(D) A-IV, B-II, C-III, D-I

Correct Answer: (C) A-IV, B-II, C-I, D-III

Solution:

Concept: Classical and Keynesian models differ in their assumptions about flexibility, employment and demand.

Step 1: Match Classical Model.

The classical model assumes flexible prices and wages and generally full employment equilibrium.

$$A \rightarrow IV$$

Step 2: Match Effective Demand.

Effective demand is the level of aggregate demand where planned saving equals planned investment.

$$S = I$$

So,

$$B \rightarrow II$$

Step 3: Match Say's Law.

Say's Law states that supply creates its own demand.

$$C \rightarrow I$$

Step 4: Match Keynesian Model.

In the Keynesian model, output is determined by aggregate demand in the short run.

$$D \rightarrow III$$

Therefore, the correct matching is:

$$A - IV, B - II, C - I, D - III$$

Quick Tip: Classical model assumes flexible prices and wages, while Keynesian model gives importance to aggregate demand in determining

output.

68.

Match List-I with List-II.

List-I	List-II
A. Expectation Augmented Phillips curve	I. Long run vertical Phillips curve
B. Natural rate of unemployment	II. Excess aggregate demand
C. Demand pull inflation	III. Wage price spiral
D. Cost push inflation	IV. Friedman

(A) A-I, B-II, C-III, D-IV

(B) A-IV, B-II, C-I, D-III

(C) A-IV, B-I, C-III, D-II

(D) A-IV, B-III, C-II, D-I

Correct Answer: (B) A-IV, B-II, C-I, D-III

Solution:

Concept: Phillips curve analysis explains the relation between inflation and unemployment. Later developments included expectations and natural rate of unemployment.

Step 1: Match Expectation Augmented Phillips Curve.

The expectation augmented Phillips curve is associated with Milton Friedman.

$$A \rightarrow IV$$

Step 2: Match Natural Rate of Unemployment.

The natural rate of unemployment is linked with the long-run vertical Phillips curve.

$$B \rightarrow I$$

Step 3: Match Demand Pull Inflation.

Demand pull inflation occurs due to excess aggregate demand.

$$C \rightarrow II$$

Step 4: Match Cost Push Inflation.

Cost push inflation may arise due to rising wages and production costs, often producing a wage-price spiral.

$$D \rightarrow III$$

Therefore, the correct matching should be:

$$A - IV, B - I, C - II, D - III$$

But this exact combination is not present among the given options.

Quick Tip: Demand-pull inflation is caused by excess aggregate demand, while cost-push inflation is linked with rising production costs and wage-price spiral.

69.

Match List-I with List-II.

List-I	List-II
A. Harrod-Domar Model	I. $g = \frac{s}{v}$
B. Solow Model	II. $MRK = \delta$
C. Golden rule of capital stock	III. k constant, y constant
D. Steady state	IV. convergence

- (A) A-I, B-IV, C-II, D-III
(B) A-I, B-II, C-III, D-IV
(C) A-IV, B-III, C-II, D-I
(D) A-IV, B-III, C-I, D-II

Correct Answer: (A) A-I, B-IV, C-II, D-III

Solution:

Concept: Growth models explain how saving, capital accumulation, productivity and steady state affect economic growth.

Step 1: Match Harrod-Domar Model.

Harrod-Domar growth model gives the growth rate as:

$$g = \frac{s}{v}$$

So,

$$A \rightarrow I$$

Step 2: Match Solow Model.

Solow model is associated with convergence, meaning poorer economies may catch up with richer economies under certain conditions.

$$B \rightarrow IV$$

Step 3: Match Golden Rule of Capital Stock.

Golden rule capital stock occurs where marginal return on capital equals depreciation.

$$MRK = \delta$$

So,

$$C \rightarrow II$$

Step 4: Match Steady State.

Steady state means capital per worker and output per worker remain constant.

$$k = \text{constant}, \quad y = \text{constant}$$

So,

$$D \rightarrow III$$

Therefore, the correct matching is:

$A - I, B - IV, C - II, D - III$

Quick Tip: Harrod-Domar growth formula is $g = \frac{s}{v}$, while Solow model is strongly associated with steady state and convergence.

70.

Match List-I with List-II.

List-I	List-II
A. $\bar{X}$	I. Population Standard Deviation
B. μ	II. Sample mean
C. σ	III. Population mean
D. s	IV. Sample Standard Deviation

- (A) A-III, B-II, C-IV, D-I
(B) A-III, B-II, C-I, D-IV
(C) A-II, B-III, C-I, D-IV
(D) A-II, B-III, C-IV, D-I

Correct Answer: (C) A-II, B-III, C-I, D-IV

Solution:

Concept: In statistics, different symbols are used for sample measures and population parameters.

Step 1: Match $\bar{X}$.

$\bar{X}$ denotes sample mean.

$$A \rightarrow II$$

Step 2: Match μ .

μ denotes population mean.

$$B \rightarrow III$$

Step 3: Match σ .

σ denotes population standard deviation.

$$C \rightarrow I$$

Step 4: Match s .

s denotes sample standard deviation.

$$D \rightarrow IV$$

Therefore, the correct matching is:

$$A - II, B - III, C - I, D - IV$$

Quick Tip: Sample statistics usually use $\bar{X}$ and s , while population parameters use μ and σ .

71.

Match the corresponding equations List-I with solutions List-II.

List-I	List-II
A. $5x^2 = 0$	I. $x = 0, 16$
B. $2x^2 - 32 = 0$	II. $x = \pm 4$
C. $2x^2 + 32 = 0$	III. $x = 0$
D. $2x^2 - 32x = 0$	IV. $x = \pm 4i$

- (A) A-I, B-II, C-III, D-IV
(B) A-III, B-II, C-IV, D-I
(C) A-III, B-IV, C-II, D-I
(D) A-IV, B-III, C-II, D-I

Correct Answer: (B) A-III, B-II, C-IV, D-I

Solution:

Concept: Quadratic equations are solved by factorisation or by isolating x^2 .

Step 1: Solve equation A.

$$5x^2 = 0$$

$$x^2 = 0$$

$$x = 0$$

So,

$$A \rightarrow III$$

Step 2: Solve equation B.

$$2x^2 - 32 = 0$$

$$2x^2 = 32$$

$$x^2 = 16$$

$$x = \pm 4$$

So,

$$B \rightarrow II$$

Step 3: Solve equation C.

$$2x^2 + 32 = 0$$

$$2x^2 = -32$$

$$x^2 = -16$$

$$x = \pm 4i$$

So,

$$C \rightarrow IV$$

Step 4: Solve equation D.

$$2x^2 - 32x = 0$$

$$2x(x - 16) = 0$$

$$x = 0, 16$$

So,

$$D \rightarrow I$$

Therefore, the correct matching is:

$$A - III, B - II, C - IV, D - I$$

Quick Tip: When x^2 becomes negative, roots become imaginary. For example, $x^2 = -16 \Rightarrow x = \pm 4i$.



72.

Match the partial derivative of function $Z = x^2 + xy^2 + y$.

List-I	List-II
A. Z_x	I. $2y$
B. Z_y	II. $2xy + 1$
C. Z_{xy}	III. $2x + y^2$
D. Z_{yx}	IV. $2y$

- (A) A-I, B-III, C-II, D-IV
- (B) A-III, B-II, C-I, D-IV
- (C) A-II, B-III, C-I, D-IV
- (D) A-I, B-II, C-III, D-IV

Correct Answer: (B) A-III, B-II, C-I, D-IV

Solution:

Concept: Partial derivative means differentiating a function with respect to one variable while treating the other variable as constant.

Step 1: Find Z_x .

$$Z = x^2 + xy^2 + y$$

Differentiate with respect to x :

$$Z_x = 2x + y^2$$

So,

$$A \rightarrow III$$

Step 2: Find Z_y .

Differentiate with respect to y :

$$Z_y = 2xy + 1$$

So,

$$B \rightarrow II$$

Step 3: Find Z_{xy} .

Differentiate $Z_x = 2x + y^2$ with respect to y :

$$Z_{xy} = 2y$$

So,

$$C \rightarrow I$$

Step 4: Find Z_{yx} .

Differentiate $Z_y = 2xy + 1$ with respect to x :

$$Z_{yx} = 2y$$

So,

$$D \rightarrow IV$$

Therefore, the correct matching is:

$$A - III, B - II, C - I, D - IV$$

Quick Tip: For well-behaved functions, mixed partial derivatives are equal:

$$Z_{xy} = Z_{yx}.$$



73.

In context of features of Indian Economy during British period, match List-I with List-II.

List-I	List-II
A. National Income	I. Growing but with very high death rates
B. Per capita Income	II. Very low and barely rising
C. Population	III. Increasing dependency on agriculture
D. Occupational Structure	IV. Almost stagnant

- (A) A-IV, B-III, C-II, D-I
(B) A-IV, B-II, C-I, D-III
(C) A-IV, B-I, C-II, D-III
(D) A-IV, B-II, C-III, D-I

Correct Answer: (B) A-IV, B-II, C-I, D-III

Solution:

Concept: During British rule, the Indian economy was characterized by stagnation, low income, poor demographic conditions and heavy dependence on agriculture.

Step 1: Match National Income.

National income during the British period was almost stagnant due to slow growth and exploitative colonial policies.

$$A \rightarrow IV$$

Step 2: Match Per capita Income.

Per capita income was very low and barely rising.

$$B \rightarrow II$$

Step 3: Match Population.

Population was growing but death rates were very high because of poor health facilities, famines and poverty.

$$C \rightarrow I$$

Step 4: Match Occupational Structure.

The occupational structure showed increasing dependence on agriculture.

$$D \rightarrow III$$

Therefore, the correct matching is:

$$A - IV, B - II, C - I, D - III$$

Quick Tip: British Indian economy had stagnant national income, very low per capita income and high dependence on agriculture.

74.

Match List-I with List-II.

List-I	List-II
A. Public Good	I. Rival, non-excludable
B. Club Good	II. Non-rival, Non exclusion
C. Common Pool resources	III. Rival, Excludable
D. Private Good	IV. Non-rival, Excludable

- (A) A-II, B-IV, C-I, D-III
(B) A-IV, B-III, C-II, D-I
(C) A-IV, B-III, C-I, D-II
(D) A-I, B-II, C-III, D-IV

Correct Answer: (A) A-II, B-IV, C-I, D-III

Solution:

Concept: Goods are classified on the basis of rivalry and excludability. Rivalry means one person's use reduces availability for others. Excludability means people can be prevented from using the good.

Step 1: Match Public Good.

Public goods are non-rival and non-excludable.

$$A \rightarrow II$$

Step 2: Match Club Good.

Club goods are non-rival but excludable.

$$B \rightarrow IV$$

Step 3: Match Common Pool Resources.

Common pool resources are rival but non-excludable.

$$C \rightarrow I$$

Step 4: Match Private Good.

Private goods are rival and excludable.

$$D \rightarrow III$$

Therefore, the correct matching is:

$$A - II, B - IV, C - I, D - III$$

Quick Tip: Public goods are non-rival and non-excludable, while private goods are rival and excludable.



75.

Match List-I with List-II.

List-I	List-II
A. Liberalisation	I. Selling government share to private sector
B. Privatisation	II. Reducing entry barriers and control
C. Disinvestment	III. Transfer of ownership to private hands
D. Globalisation	IV. Opening up to foreign investment

- (A) A-IV, B-III, C-II, D-I
(B) A-I, B-II, C-III, D-IV
(C) A-II, B-III, C-IV, D-I
(D) A-II, B-III, C-I, D-IV

Correct Answer: (D) A-II, B-III, C-I, D-IV

Solution:

Concept: Liberalisation, privatisation and globalisation were major reforms introduced in India after 1991 to make the economy more open, competitive and market-oriented.

Step 1: Match Liberalisation.

Liberalisation means reducing restrictions, entry barriers, licensing and government controls.

$$A \rightarrow II$$

Step 2: Match Privatisation.

Privatisation means transfer of ownership, management or control from public sector to private hands.

$$B \rightarrow III$$

Step 3: Match Disinvestment.

Disinvestment means selling government shares in public sector enterprises to private sector or public investors.

$$C \rightarrow I$$

Step 4: Match Globalisation.

Globalisation means integration of the domestic economy with the world economy through trade, capital flow and foreign investment.

$$D \rightarrow IV$$

Therefore, the correct matching is:

$$A - II, B - III, C - I, D - IV$$

Quick Tip: Liberalisation reduces controls, privatisation transfers ownership to private hands, disinvestment sells government shares, and globalisation opens the economy to the world.