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GATE Economics 2026

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01

GENERAL APTITUDE

Verbal Aptitude

Difficulty: Easy | 2026 · Q1 | MCQ · 1 mark

"He often _____ the numbers. False claims are not going to help. Honesty _____ trust", said the manager. Choose the option with the correct order of words to fill the blanks.

A. exaggerates; engenders

B. excels; encourages

C. aggravates; alleviates

D. diminishes; eliminates

EXPLANATION

Correct answer: A

The manager criticizes false claims and then contrasts them with honesty. The first verb should describe making the numbers appear greater than they are; **exaggerates** supplies that meaning. The second verb should describe honesty producing trust; **engenders** means causes or brings into existence.

The completed thought is that he often exaggerates the numbers, whereas honesty engenders trust. Both verbs also agree with their singular subjects, "he" and "honesty."

- **B:** "Excels" normally means performs very well and is commonly followed by "at" or "in." "Excels the numbers" does not express the numerical misrepresentation described here, even though "encourages trust" could make sense separately.
- **C:** "Aggravates" means worsens, while "alleviates" means reduces or eases a burden. Neither gives the intended contrast, and alleviating trust would not mean creating it.
- **D:** "Diminishes" means reduces, and "eliminates" means removes. The second word would make honesty destroy trust, reversing the manager's point.

Each pair must fit both grammar and the passage's meaning. A plausible word in just one blank cannot compensate for a mismatch in the other. The context of false claims followed by honesty fixes the required opposition between distortion and trust-building.

KEYWORDS: contextual vocabulary | exaggerate engender | semantic contrast

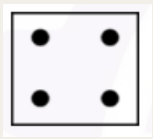
02 GENERAL APTITUDE

Analytical Aptitude

Difficulty: Easy | 2026 · Q2 | MCQ · 1 mark

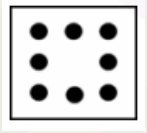
In the sequence of tiles shown below, the missing tile indicated by the question mark should be



A. 

B. 

C. 

D. 

EXPLANATION

Correct answer: B

The visible tiles have 2, 3, 7 and 11 dots. These counts fit the successive primes 2, 3, 5, 7 and 11, so the missing tile has five dots. Option B shows four corner dots and one in the centre.

- **A:** The tile has four dots. Four is composite, so it skips the next prime after three.
- **C:** Two columns of three make six dots. Six is divisible by two and by three.
- **D:** Three dots at the top, two in the middle and three at the bottom make eight. The centre is empty, and eight exceeds the following count of seven.

KEYWORDS: prime number sequence | visual dot count | pattern completion

03

GENERAL APTITUDE

Analytical Aptitude

Difficulty: Easy | 2026 · Q3 | MCQ · 1 mark

A school has 100 students distributed among 1st to 10th standards. Based on this, which one of the following statements is always correct?

A. There are at least 10 students who belong to the same standard.

B. There is at least one student in each standard.

C. There are at most 10 students in 10th standard.

D. The total number of students from 1st to 5th standards is at least 50.

EXPLANATION

Correct answer: A

There are 100 students and ten possible standards. If every standard contained at most nine students, the school could have at most $10 \times 9 = 90$ students. That contradicts the total of 100. Therefore at least one standard contains ten or more students.

This is the pigeonhole principle: placing 100 objects into ten groups forces some group to have at least the average, $100/10 = 10$. It does not say that all groups equal the average, or identify which standard has the larger count.

- **B:** No minimum enrolment per standard is specified. A distribution with one empty standard and all 100 students among the other nine is compatible with the total.
- **C:** The tenth standard could have more than ten students. For example, it could contain 20 while the other standards share the remaining 80.
- **D:** The two groups of five standards can have different student totals. The lower five could contain 40 in total and the upper five 60.

The word “always” requires a statement true for every permitted distribution. A single counterexample defeats B, C or D, while the total-count contradiction proves A regardless of how unevenly the students are allocated.

KEYWORDS: pigeonhole principle | average lower bound | universal claim counterexample

04

GENERAL APTITUDE

Quantitative Aptitude

Difficulty: Easy | 2026 · Q4 | MCQ · 1 mark

How many 3-digit numbers can be formed using three distinct single digit prime numbers?

A. 64

B. 24

C. 12

D. 4

EXPLANATION

Correct answer: B

The single-digit primes are 2, 3, 5 and 7. The number one is not prime: a prime has exactly two positive divisors, whereas one has only one.

To build a three-digit number with distinct digits, choose the hundreds digit in four ways. The tens digit then has three choices because the first digit cannot be reused. Two unused primes remain for the units digit. By the multiplication rule,

$$4 \times 3 \times 2 = 24.$$

There is no leading-zero adjustment because zero is not one of the available digits. Order matters: 235 and 253 are different numbers even though they use the same set of primes.

- **A:** $64 = 4^3$ allows four choices at every position and therefore permits repeated digits, contrary to “distinct”.
- **C:** $12 = 4 \times 3$ counts only two occupied positions. Every such ordered pair still leaves two possible units digits.
- **D:** $4 = \binom{4}{3}$ counts the possible sets of three primes but does not arrange each set into its six different three-digit numbers.

An equivalent calculation is to choose three of the four primes and then arrange them: $\binom{4}{3} \times 3! = 4 \times 6 = 24$. Selection ignores order; forming a number requires order.

KEYWORDS: single digit primes | permutations without repetition | selection versus arrangement

05

GENERAL APTITUDE

Quantitative Aptitude

Difficulty: Easy | 2026 · Q5 | MCQ · 1 mark

In a group of students, 10 students like Mathematics, 12 students like English, 4 students like both Mathematics and English, and 6 students like neither Mathematics nor English. The number of students in the group is ____

A. 18

B. 20

C. 24

D. 32

EXPLANATION

Correct answer: C

The Mathematics group and the English group overlap: each of the four students who likes both subjects is included in both headline counts. Adding 10 and 12 therefore counts those four students twice.

Subtract the overlap once to count everyone who likes at least one subject:

$$10 + 12 - 4 = 18.$$

The six students who like neither subject are outside that union but still belong to the group. Add them to get $18 + 6 = 24$ students.

The same count can be seen by dividing the group into four disjoint categories: Mathematics only has $10 - 4 = 6$ students; English only has $12 - 4 = 8$; both has 4; neither has 6. These add to $6 + 8 + 4 + 6 = 24$.

- **A:** 18 counts students who like at least one of the two subjects. It omits the six who like neither.
- **B:** 20 results from $10 + 12 - 2(4) + 6$. Subtracting the overlap twice removes the four students who like both altogether, although they still belong in the group.
- **D:** 32 results from $10 + 12 + 4 + 6$. Adding the overlap instead of subtracting it counts each student who likes both three times.

Inclusion–exclusion removes duplicate counting, not the overlapping people themselves. After subtracting the overlap once, every member of the union is represented exactly once.

KEYWORDS: two set inclusion exclusion | neither category | overlap double counting

06

GENERAL APTITUDE

Analytical Aptitude

Difficulty: Easy | 2026 · Q6 | MCQ · 2 marks

Charity : P :: Retaliation : Q Choose the appropriate pair of words P and Q that fit the analogy.

A. P = Parsimonious; Q = Vengeful

B. P = Altruistic; Q = Amicable

C. P = Resentful; Q = Spiteful

D. P = Magnanimous; Q = Vindictive

EXPLANATION

Correct answer: D

The analogy pairs an action or behaviour with a characteristic associated with it. Charity involves giving help generously; "magnanimous" describes a generous, large-hearted disposition. Retaliation involves responding to an injury or offence with a return action; "vindictive" describes a disposition to seek revenge. Both halves of D preserve that intended relationship.

The task requires the two word choices to work together. A good match for retaliation cannot rescue a poor match for charity, and vice versa.

- **A:** "Vengeful" fits retaliation, but "parsimonious" means very unwilling to spend or give. It conflicts with the generosity associated with charity.
- **B:** "Altruistic" fits concern for others and hence charity. "Amicable", however, means friendly or peaceable, which does not express the revenge-oriented character of retaliation.
- **C:** "Spiteful" can describe a desire to hurt another and thus fits retaliatory behaviour. "Resentful" means feeling bitterness over a perceived wrong, not the generosity represented by charity.

D is therefore the only pair with an appropriate adjective on both sides. The association is about the sense of the words in this analogy; it does not require claiming that every act described as retaliation has precisely the same motive.

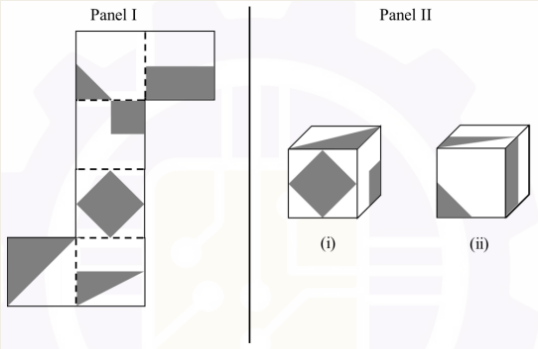
KEYWORDS: action disposition analogy | magnanimous vindictive | paired semantic fit

07 GENERAL APTITUDE

Spatial Aptitude

Difficulty: Medium | 2026 · Q7 | MCQ · 2 marks

A paper shown in Panel I is folded along the dashed lines (- - -) to construct a cube. The shaded regions shown in Panel I appear on the outer surface of the cube. Referring to cubes shown in Panel II, which one of the options is correct?



A. Only (i) can correspond to the unfolded cube in Panel I.

B. Only (ii) can correspond to the unfolded cube in Panel I.

C. Both (i) and (ii) can correspond to the unfolded cube in Panel I.

D. Neither (i) nor (ii) can correspond to the unfolded cube in Panel I.

EXPLANATION

Correct answer: A

Track both the identity of each face and the position of its shading. Merely finding three different shaded faces does not show that they can meet in the displayed orientations.

Name the four faces in the vertical strip from top to bottom: small corner-triangle face, small-square face, diamond face, and shallow-triangle face. The extra face at the lower left is half shaded diagonally; the extra face at the upper right is shaded across its lower half.

Folding the strip makes the corner-triangle and diamond faces opposite, and the small-square and shallow-triangle faces opposite. The two extra side faces are opposite each other.

Cube (i) is achievable. Put the diamond in front, the diagonally half-shaded extra face on top, and the small-square face on the right. Folding preserves the shown top triangle along the front edge and places the small square in the lower part of the right face toward the back.

Cube (ii) fails the shading orientation. With the small corner triangle at the lower-left of the front face, the extra half-shaded face folds onto the right. Its shading must occupy the lower half, meeting the lower half of the front–right edge. The drawing instead shows a vertical shaded strip adjoining that edge over its full height.

- **B:** It accepts the right-face shading mismatch in (ii) and rejects the achievable arrangement in (i).
- **C:** The presence of the right face types is insufficient; (ii) does not preserve the shading's position when folded.
- **D:** The diamond-front arrangement in (i) follows from the net, so rejecting both cubes discards a valid folding.

Rotating a cube moves its entire faces and their markings together. It cannot rotate the shading on one face independently while leaving the other visible faces fixed.

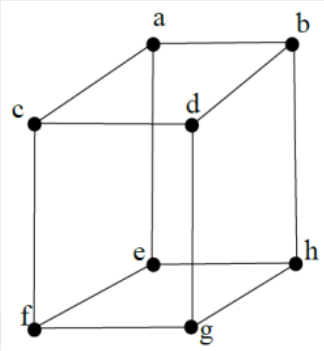
KEYWORDS: cube net folding | opposite faces | marking orientation | rigid rotation

08 GENERAL APTITUDE

Analytical Aptitude

Difficulty: Easy | 2026 · Q8 | MCQ · 2 marks

Consider the cube shown below with its 8 corners labelled a, b, c, d, e, f, g, and h. The figure is representative. All corners are to be colored such that any two corners that are connected by an edge must be of different colors. The minimum number of colors required to achieve this is _ _ _ _ _ _ _ _



A. 8

B. 4

C. 3

D. 2

EXPLANATION

Correct answer: D

Two colours are necessary because the endpoints of any edge must differ; one colour cannot satisfy even a single edge. To prove that two are enough, construct a colouring for all eight corners.

Using the labels in the figure, give one colour to a, d, f, h and the other to b, c, e, g. On the top face, the vertices alternate between the colours. Each bottom vertex has the opposite colour to the vertex directly above it, and the bottom face also alternates. Every edge therefore joins different colours.

- **A:** Eight colours would work, but assigning a unique colour to every vertex is unnecessary. Nonadjacent corners may share a colour.
- **B:** Four colours also suffice, but the explicit two-colour assignment shows that four is not the minimum.
- **C:** Three colours are more than needed; the cube's edge connections permit complete alternation using two.

KEYWORDS: cube vertex colouring | bipartite graph | parity colouring | lower bound and construction

09

GENERAL APTITUDE

Analytical Aptitude

Difficulty: Easy | 2026 · Q9 | MCQ · 2 marks

Four hills H1, H2, H3, and H4 are present in an area. The following observations are made about them:

i. Neither H2 nor H3 is the easternmost hill.

ii. Neither H2 nor H3 is the westernmost hill.

iii. Neither the easternmost hill nor the westernmost hill is the southernmost hill.

iv. Two hills are located to the west of H2.

v. The southernmost hill has at least two hills to its east. The southernmost hill is _____.

A. H1

B. H2

C. H3

D. H4

EXPLANATION

Correct answer: C

First arrange the hills by their west-to-east positions, without yet deciding which lies farthest south. H2 and H3 are neither the easternmost nor the westernmost, so H1 and H4 occupy the two ends in some order. H2 and H3 must occupy the two middle positions.

Exactly two hills lie west of H2. This places H2 third in the west-to-east ordering and H3 second. The order is consequently either H1, H3, H2, H4 or H4, H3, H2, H1.

The southernmost hill cannot be either end hill, by observation (iii). That leaves H2 and H3. Observation (v) requires at least two hills east of the southernmost hill. H2 has only one hill east of it, while H3 has two. Thus H3 is southernmost.

- **A:** H1 occupies one of the extreme east–west positions. Observation (iii) rules out either extreme as southernmost.
- **B:** H2 is third from the west, leaving only one hill to its east. It fails the two-hills-to-the-east requirement.
- **D:** H4 is the other extreme hill and is excluded by the same condition that rules out H1.

KEYWORDS: directional ordering | rank constraints | cross axis inference

10

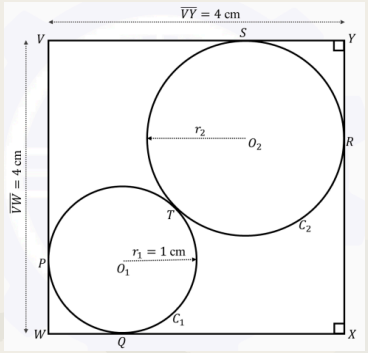
GENERAL APTITUDE

Quantitative Aptitude

Difficulty: Easy | 2026 · Q10 | MCQ · 2 marks

As shown in the figure, circle C_1 with center O_1 and radius r_1 touches the square $VWXY$ at points P and Q while circle C_2 with center O_2 and radius r_2 touches the square $VWXY$ at points R and S. The two circles touch each other at T.

Given $r_1 = 1$ cm and $\overline{VY} = \overline{VW} = 4$ cm, $r_2 =$ _____ cm.



A. $4 - 3\sqrt{2}$

B. $1 + 2\sqrt{2}$

C. $7 - 4\sqrt{2}$

D. $5 + 3\sqrt{2}$

EXPLANATION

Correct answer: C

Place the square's bottom-left corner W at $(0, 0)$, with its sides along the coordinate axes. Its upper-right corner Y is then $(4, 4)$. A circle tangent to two perpendicular sides has its centre one radius away from each side.

The smaller circle has centre $O_1 = (1, 1)$. Writing r for the second radius, its tangency to the top and right sides gives $O_2 = (4 - r, 4 - r)$. The centre separation is therefore $\sqrt{2}(3 - r)$. Here $r \leq 2$ because the second circle fits inside the square, so $3 - r$ is positive.

The two circles touch externally, making the distance between their centres equal to the sum of their radii:

$$\sqrt{2}(3 - r) = 1 + r.$$

Solving and rationalising,

$$r = \frac{3\sqrt{2}-1}{\sqrt{2}+1} = \frac{(3\sqrt{2}-1)(\sqrt{2}-1)}{2-1} = 7 - 4\sqrt{2} \approx 1.343 \text{ cm}.$$

- **A:** $4 - 3\sqrt{2} \approx -0.243$ is negative and cannot be a radius.
- **B:** $1 + 2\sqrt{2} \approx 3.828$ gives a diameter greater than the square's four-centimetre side, so the circle could not fit inside it.
- **D:** $5 + 3\sqrt{2} \approx 9.243$ is even larger than the square's side and fails the same geometric constraint.

The sum of radii is appropriate for external tangency. Using their difference would describe one circle touching the other internally, which is not the arrangement shown. Coordinates convert both wall tangencies and circle tangency into one distance equation.

KEYWORDS: circle tangency | radius feasibility bound | coordinate centres | external tangency distance

11 REASONING AND COMPREHENSION

Logical Reasoning

Difficulty: Medium | 2026 · Q11 | MCQ · 1 mark

Aman, Beena, Chiranjeevi and Dhiman are four siblings. Each of them is an expert in one of the performing arts, namely, dance, theatre, guitar and percussion, not necessarily in that order. The dancer is taller than the theatre expert. Aman is taller than Chiranjeevi. The percussionist is taller than Beena but shorter than Aman. Beena is shorter than the dancer. The guitarist is not the tallest. Dhiman is shorter than both, guitarist and Chiranjeevi. What is the expertise of Aman?

A. Dance

B. Theatre

C. Guitar

D. Percussion

EXPLANATION

Correct answer: A

First determine Aman's height relative to every other sibling. Aman is taller than Chiranjeevi, who is taller than Dhiman. Also, the percussionist is shorter than Aman but taller than Beena. These comparisons establish that Aman is taller than Chiranjeevi, Dhiman and Beena: Aman is the tallest.

Now use the restrictions on the arts. The guitarist is not the tallest, so Aman cannot play guitar. The percussionist is explicitly shorter than Aman, so Aman cannot be the percussionist. The theatre expert is shorter than the dancer, so the theatre expert cannot be the tallest either. The only remaining expertise for Aman is **dance**.

- **B:** If Aman were the theatre expert, the dancer would have to be taller than Aman, contradicting his established position as tallest.
- **C:** The guitarist is expressly said not to be tallest, which excludes Aman.
- **D:** The percussionist is expressly shorter than Aman, so these must be different people.

A complete consistent assignment provides a check: Aman is the dancer, Chiranjeevi the percussionist, Beena the guitarist and Dhiman the theatre expert, with heights decreasing in that order. This satisfies every comparison, including Dhiman being shorter than both the guitarist and Chiranjeevi. To answer the question, however, it is sufficient to establish Aman's height position and eliminate the other three arts.

KEYWORDS: height partial order | role assignment | extreme rank elimination

12

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Easy | 2026 · Q12 | MCQ · 1 mark

Let ΔABC be an isosceles triangle with the base AB of length 8 units. Let CD be a perpendicular of length 4 units drawn from the vertex C onto the base AB and AC = BC. Then, which of the following is the set of values of the angles (in degrees) CAB, ABC, BCA respectively?

A. 45,45,90

B. 100,40,40

C. 90,45,45

D. 40,40,100

EXPLANATION

Correct answer: A

In an isosceles triangle, the perpendicular from the apex to the base also bisects the base. This follows because the two resulting right triangles have equal hypotenuses, AC and BC, and the common leg CD, so they are congruent.

Consequently, $AD = DB = 8/2 = 4$ units. Since CD is also four units, triangle ACD is a right triangle with equal legs. Its two acute angles are each 45°. Thus the base angle CAB is 45°, and the other base angle ABC is equal to it.

The three interior angles sum to 180°, so

$\angle BCA = 180^\circ - 45^\circ - 45^\circ = 90^\circ$.

In the requested order CAB, ABC, BCA, the values are **45, 45, 90**.

- **B:** The first two angles would be 100 and 40 degrees. They cannot be unequal because they are opposite the equal sides BC and AC.
- **C:** This uses the correct three numbers but assigns the right angle to A instead of C. It also makes the two base angles unequal.
- **D:** Equal base angles alone are insufficient. Base angles of 40 degrees would not give equal height and half-base; these lengths require 45 degrees.

Always identify which vertex is the apex before ordering an isosceles triangle's angles. The middle letter of an angle name gives its vertex.

KEYWORDS: isosceles altitude bisection | equal leg right triangle | angle vertex order

13

REASONING AND COMPREHENSION

Expression

Difficulty: Easy | 2026 · Q13 | MCQ · 1 mark

In the given passage, fill in the blanks with most suitable set of given words: The future must no longer be___ by the past. While, the effects of the past are still with us, each day is a new___. Therefore, one should *from solely believing in destiny and crave towards charting their own path of success with grit and labour. Positive____* is imperative.

A. Determined, beginning, refrain, anticipation

B. Fascinated, one, include, physiology

C. Explored, suffering, content, psychiatry

D. Marred, life, hinder, labyrinth

EXPLANATION

Correct answer: A

The paragraph encourages agency despite the continuing effects of the past. A supplies words that maintain that direction throughout: the future need not be determined by the past, each day offers a new beginning, one should refrain from relying solely on destiny, and positive anticipation supports looking ahead.

"Determined" means fixed or decided here. "Refrain from" is the established construction meaning to avoid doing something, so it fits directly before "solely believing in destiny". "Anticipation" concerns expectations about what is to come.

- **B:** "Fascinated" normally describes an interested person, not a future controlled by its past. "Include from" does not fit the required verb construction, and "physiology" concerns bodily functions rather than hopeful expectation.
- **C:** "New suffering" reverses the encouraging description of each day. "Content from" does not supply the needed act of avoiding reliance on destiny, and "psychiatry" does not complete the intended motivational idea.
- **D:** "Marred by the past" could fit the first blank alone, but "hinder from" lacks the required object in this construction. A "labyrinth" is a maze, not the positive outlook needed in the final sentence.

The selection must work across the entire passage. A plausible first word, as in D, cannot compensate for unsuitable grammar and meaning in the later blanks.

KEYWORDS: refrain from collocation | contextual cloze | positive expectation

14

REASONING AND COMPREHENSION

Logical Reasoning

Difficulty: Easy | 2026 · Q14 | MSQ · 1 mark

Indian society is experiencing a boom in pet culture, where people are becoming responsible caretakers of pets rather than merely providing food and shelter. They no longer like to identify themselves as 'pet-owners' but rather as 'pet-parents'. This means that there is an emotional transaction rather than a utilitarian one. Which of the following weaken(s) the argument presented in the given passage?

A. Some social media influencers are using their pets only for popularity.

B. Food, medicines and clothes for pets are becoming easily available.

C. Pet owners are expecting some provision for tax rebate.

D. In today's stressful times, pets provide emotional support.

EXPLANATION

Correct answer: A, C

The passage argues that more attentive care and the term "pet-parents" indicate an emotional relationship rather than a utilitarian one. To weaken that contrast, evidence can introduce a practical or financial interest into the relationship. It need not establish that affection is entirely absent.

- **A:** Using pets only for popularity is direct evidence of an instrumental motive. These people are using their pets to obtain public attention, which challenges the broad emotional-rather-than-utilitarian description.
- **B:** Easier availability of food, medicines and clothing concerns the supply of care products. It does not by itself establish why people keep pets or what they seek from the relationship.
- **C:** An expectation of a tax rebate introduces a financial consideration into pet ownership. This weakens the sharp exclusion of utilitarian considerations, even though someone seeking relief for care expenses may also love their pet. Weakening the contrast does not require proving a wholly financial motive.
- **D:** Emotional support is consistent with an emotional relationship. It reinforces the relevance of emotional ties rather than supplying the contrasting financial or popularity consideration.

A is the stronger counterexample, while C provides weaker evidence of a practical interest. Both bear against the passage's sharp contrast. Neither warrants the conclusion that all pet relationships lack affection.

KEYWORDS: argument weakening | utilitarian consideration | emotional attachment

15

REASONING AND COMPREHENSION

Logical Reasoning

Difficulty: Medium | 2026 · Q15 · Adapted practice | MSQ · 1 mark

Assume the following hostel lunch notice was followed. "Or" is inclusive.

S1: Lunch was restricted to residents who paid mess fees on time. S2: Residents contesting the Mess Council election had to stay away throughout lunch. S3: Every resident eligible under S1 and permitted to be present under S2 attended lunch.

C1: A resident who missed lunch either had not paid on time or was contesting the election. C2: A resident who attended either was not contesting or had paid on time. C3: Contestants are exempt from paying mess fees on time. C4: Timely payers could attend only if they were not contesting.

Which of the following statements about C1–C4 is/are correct?

A. Exactly one of C1, C2, C3 and C4 does not follow.

B. Neither C1 nor C2 follows.

C. Neither C2 nor C3 follows.

D. Neither C3 nor C4 follows.

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: A

The lunch is restricted to timely payers, and contestants must be away during the lunch period. Conversely, S3 says that every timely payer who is permitted to be present attends. These conditions give the equivalence: a resident attends if and only if the resident paid on time and is not a contestant.

C1 follows by considering non-attendance. If both timely payment and non-contestant status held, S3 would guarantee attendance. Therefore someone who did not attend must have failed to pay on time, been a contestant, or both.

C2 also follows. Every attendee is both a non-contestant and a timely payer. Inclusive "or" requires at least one condition, so it is true when both are satisfied. It provides less information than "and", but it is not false.

C3 does not follow. The notice sets conditions for attending lunch. It does not say whether contestants are exempt from the usual payment deadline. C4 does follow: the absence requirement prevents a contestant from joining lunch even if that resident paid on time. Exactly one conclusion, C3, is therefore unsupported.

- **A:** Correct. C3 alone improperly turns exclusion from lunch into an exemption from paying mess fees.
- **B:** C1 expresses the possible reasons for non-attendance, and C2 is satisfied by every attendee's two established properties. Both conclusions follow.
- **C:** The fee-exemption claim in C3 is unsupported, but C2 remains true because inclusive "or" allows both timely payment and non-contestant status.
- **D:** C4 is justified by the requirement that contestants remain away throughout lunch; it cannot be grouped with the unsupported fee-exemption claim.

KEYWORDS: inclusive disjunction | eligibility equivalence | negation of conjunction | unsupported fee exemption

16 REASONING AND COMPREHENSION

Logical Reasoning

Difficulty: Medium | 2026 · Q16 | MSQ · 1 mark

Six statements, S1 to S6, are given.

S1: All GATE candidates are engineers.

S2: Some GATE candidates are CAT candidates.

S3: All GRE candidates are GATE candidates.

S4: All engineers are GRE candidates.

S5: Some CAT candidates are GRE candidates.

S6: Some CAT candidates are engineers. Based on S1-S6, following options provide a set of three statements, followed by a fourth statement. Identify the option(s) where the fourth statement can be necessarily inferred from the set of three statements.

A. {S1, S2, S3} => S5

B. {S4, S1, S2} => S5

C. {S6, S1, S3} => S5

D. {S4, S3, S1} => S6

EXPLANATION

Correct answer: B

Evaluate each choice using only its three listed premises. The remaining statements are not automatically available. “All X are Y” places X inside Y; it does not allow the reverse inference that all Y are X. “Some” requires at least one shared member.

- **A:** S2 provides a person who is both a GATE and a CAT candidate. S1 makes that person an engineer. However, S3 says GRE candidates are GATE candidates, not that GATE candidates are GRE candidates. The person could be outside the GRE group, so S5 does not follow.
- **B:** S2 supplies a person in both CAT and GATE. By S1 that person is an engineer, and by S4 every engineer is a GRE candidate. The same person is therefore in both CAT and GRE, establishing S5.
- **C:** S6 supplies a CAT candidate who is an engineer. Neither S1 nor S3 allows an engineer to be inferred to be a GRE candidate: their inclusions point in the other direction. S5 is not guaranteed.
- **D:** S4, S3 and S1 form the cycle engineers to GRE to GATE to engineers, making those three sets equal. They say nothing about membership of CAT, so they cannot establish a CAT–engineer overlap.

For a concrete counterexample to A and C, imagine Alice is a CAT candidate, GATE candidate and engineer but not a GRE candidate. Bob belongs to GRE, GATE and engineering but not CAT. All the premises used in A and C hold, while no CAT candidate is a GRE candidate. For D, CAT candidates could simply lie outside the common engineer/GRE/GATE set.

Only B carries an explicitly existing shared member through the required chain of inclusions.

KEYWORDS: subset specific premises | existential witness | inclusion chain | invalid converse

17

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Medium | 2026 · Q17 · Adapted practice | MSQ · 1 mark

Four couples M–N, O–P, R–L and S–E sit at a rectangular table with two opposite rows of four seats. The men M, O, R and S occupy one row. O and R occupy its ends; M is beside R. Each person sits adjacent to the seat opposite their spouse. Which statements follow?

A. R sits opposite to N and S sits opposite to P.

B. R sits opposite to P and O sits opposite to N.

C. S sits opposite to N and O sits opposite to L.

D. M sits opposite to L and O sits opposite to E.

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: A, D

Number the four positions on each side from left to right using the same physical columns, so that matching columns face each other. We may place O at the left corner and R at the right corner of the men's side; reversing left and right gives a mirror image with the same opposite pairs.

M sits beside R, so M occupies the third column. The remaining man's seat, in the second column, belongs to S. Now place the spouses using the requirement that each sits one column away from the position facing their partner:

- P, married to O, must take the second column on the other side.
- L, married to R, must take the third column on that side.
- N, married to M, could initially be in the second or fourth column. P already occupies the second, so N takes the fourth.
- E takes the remaining first column, which is adjacent to the position facing S.

Side	Column 1	Column 2	Column 3	Column 4
Men	O	S	M	R
Opposite side	E	P	L	N

The opposite pairs are O–E, S–P, M–L and R–N.

- **A:** R faces N and S faces P, both of which follow from the arrangement.
- **B:** R faces N rather than P, and O faces E rather than N. Spouse adjacency does not place these named people opposite one another.
- **C:** S faces P rather than N, while O faces E rather than L. The proposed pairs conflict with the forced columns.
- **D:** M faces L and O faces E, agreeing with the completed seating arrangement.

KEYWORDS: rectangular seating | spouse adjacency | opposite seat pairs

18

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Medium | 2026 · Q18 | MCQ · 2 marks

Me and my spouse have a big family, comprising 8 females and 6 males. We have two sons and two daughters, of whom the eldest is unmarried. Out of my two grandsons and three granddaughters, only one grandson is a single child. His mother is my younger daughter. Which of my children necessarily has two daughters?

A. None of my sons

B. One of my sons

C. One of my daughters

D. Elder daughter

EXPLANATION

Official answer: B

Count the two grandparents, their four children, the spouses of the married children and the five grandchildren. This count assumes male–female couples and that the unmarried child has no children.

Before adding the children's spouses, count the people already described. There are five males: one grandparent, two sons and two grandsons. There are six females: one grandparent, two daughters and three granddaughters. The family total is six males and eight females, so the remaining members are **one son-in-law and two daughters-in-law**.

Both sons are therefore married, as is one daughter. The younger daughter is the mother of the grandson who is an only child. She has no daughters. The unmarried child must consequently be the elder daughter. All three granddaughters must belong to the two sons. Distributing three girls between two fathers guarantees that at least one father has at least two daughters.

- **A:** If neither son had at least two daughters, each could have at most one. Together they could account for only two of the three granddaughters.
- **C:** The younger daughter has only her son, and the elder daughter is unmarried and is assumed to have no children. Neither accounts for the granddaughters.
- **D:** The elder daughter is the unmarried child identified by the spouse count, and is assumed to have no children.

At least two daughters are guaranteed for one son. Exactly two are possible, but so are three: one son could have all three granddaughters and the other grandson. The clues do not identify which son has the daughters.

KEYWORDS: family gender accounting | spouse count inference | pigeonhole allocation | family puzzle conventions

19

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Medium | 2026 · Q19 | MCQ · 2 marks

Given the first four terms 30, 105, 385, 1001 in a sequence, which amongst the following is the fifth term of the sequence?

A. 2341

B. 2431

C. 2571

D. 2751

EXPLANATION

Correct answer: B

Factor the terms rather than looking only at their differences. Each is the product of three consecutive prime numbers, with the group moving one place forward each time:

$$30 = 2 \times 3 \times 5, \quad 105 = 3 \times 5 \times 7,$$

$$385 = 5 \times 7 \times 11, \quad 1001 = 7 \times 11 \times 13.$$

The next group is therefore 11, 13 and 17. Its product is

$$11 \times 13 \times 17 = 143 \times 17 = 2431.$$

Thus B continues the consecutive-prime pattern.

- **A:** 2341 interchanges the middle digits of 2431. It is not the product of the next three primes; in particular, it is not divisible by 11.
- **C:** 2571 has digit sum 15, so it is divisible by three. The required product $11 \times 13 \times 17$ contains no factor of three.
- **D:** 2751 also has digit sum 15 and is divisible by three, so it cannot be the required product either.

The products overlap in two prime factors: moving from one term to the next removes the smallest prime and introduces the next larger prime. That repeated structure explains all four supplied terms and provides the intended continuation without inventing a separate rule for each gap.

KEYWORDS: consecutive prime products | factorisation pattern | rolling factor sequence

20

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Medium | 2026 · Q20 | MSQ · 2 marks

Three players named Arun, Babita and Chandu play a game by tossing an unbiased coin in turn whose rules are as follows: Initially each player has 100 candies. If the tossing of this coin results in a 'head' then the player who tosses receives 10 candies from each of the other two players, whereas, if the toss results in a 'tail' then the player who tosses has to give away 20 candies to each of the other two players. A player with the highest number of candies at the end will be the winner. The game is started by Arun, followed by Babita and finally stopped after Chandu's turn. Given that Arun is the only winner, which of the following hold(s) true?

A. Arun has 90 candies more than Chandu

B. Both Babita and Chandu have the same number of candies

C. Arun has 90 candies more than Babita

D. Babita and Chandu together have 120 candies

EXPLANATION

Correct answer: A, B, C

Each head earns the tossing player 20 candies in total, while each tail costs that player 40. For two players who obtain the same toss outcome, the effects of their own turns and their transfers to each other balance symmetrically; the third player's turn affects them equally. They therefore finish tied.

A head-tosser finishes 90 candies ahead of a tail-tosser: their own turns create a difference of $20 - (-40) = 60$, and the transfer between them adds another $20 - (-10) = 30$ to that difference. The third player's transfers do not change the gap. Thus Arun can be the sole winner only if he obtains a head and both others obtain tails.

Track that sequence explicitly:

Stage	Arun	Babita	Chandu
Initially	100	100	100
Arun obtains head	120	90	90
Babita obtains tail	140	50	110
Chandu obtains tail	160	70	70

- **A:** True. Arun finishes with $160 - 70 = 90$ more candies than Chandu.
- **B:** True. Babita and Chandu each finish with 70 candies.
- **C:** True. Arun also finishes 90 candies ahead of Babita.
- **D:** False. Babita and Chandu together have $70 + 70 = 140$ candies, not 120.

The final total remains $160 + 70 + 70 = 300$, matching the initial total because every gain is another player's loss. The coin's fairness affects probabilities, but the condition of a unique winner determines the relevant outcome sequence.

KEYWORDS: transfer game | unique winner constraint | outcome symmetry | conservation of total

21 REASONING AND COMPREHENSION

Expression

Difficulty: Easy | 2026 · Q21 | MSQ · 2 marks

Choose the correct sequence of sentences so that they form a coherent paragraph:

P. However, in the context of texts dealing with science or engineering, this condition may not be applicable.

Q. One can infer, that there is something called discipline fidelity and within this aspect, content, language, structure and scope of a text may vary.

R. In the meaning-making process of a text, it is not always logic that is central.

S. Most of the times, it is the expression of the experience that supersedes the structure and argument. Which of the following options is/are correct and giving the most appropriate order and meaning to the sentence?

A. RSPQ

B. QRSP

C. RSQP

D. SPRQ

EXPLANATION

Correct answer: A

R introduces the general claim that logic is not always central to making meaning from a text. S explains what may take precedence instead: the expression of experience. P then qualifies that claim with “However”, pointing to science and engineering as contexts in which the condition may not apply.

Q concludes with “One can infer”, drawing the broader lesson that disciplines differ in the content, language, structure and scope they require. Thus the order is R–S–P–Q.

- **A:** This gives a coherent claim, explanation, disciplinary exception and concluding inference. “This condition” in P refers back to the precedence of experience over structure and argument described in S.
- **B:** It opens with the inference before presenting the contrast from which that inference arises. Ending at P supplies the exception after the conclusion rather than using it to motivate Q.
- **C:** It places the disciplinary inference before the science-and-engineering example that explains why disciplinary differences matter.
- **D:** It introduces the preference for experience and its exception before stating the general claim about logic, weakening the progression from broad idea to explanation and qualification.

Only A is selected in this multiple-select question. Connective phrases are useful because they identify argumentative roles: “However” needs a preceding claim to qualify, while “One can infer” naturally follows the evidence supporting the inference.

KEYWORDS: claim elaboration exception | concluding inference | disciplinary context

22 REASONING AND COMPREHENSION

Reading Comprehension

Difficulty: Easy | 2026 · Q22 | MSQ · 2 marks

Mental health is a global concern, especially among the youth. During the Covid-19 pandemic, when schools and colleges were operating online, students were left with no option but to stay at home leading to negligible social interaction. Several studies indicate that even when offline classes have now resumed post Covid-19 pandemic, these students are finding it difficult to establish social connect leading to mental health issues. To deal with this situation, schools and colleges are trying hard to implement different strategies to combat their student's mental health depending on their unique culture, overall strength, and resources. Which of the following conclusions can be drawn from the above passage?

A. India is a young nation.

B. Different schools and colleges will have their own way to tackle the issue of mental health.

C. A combination of online and offline class is good for students.

D. Social connect is important for mental health.

EXPLANATION

Correct answer: B, D

The passage connects disrupted social interaction during pandemic restrictions with students' continuing difficulty in forming social connections after classrooms reopened. It then describes institutions responding in ways shaped by their own circumstances. These are the two lines of reasoning reflected in B and D.

- **A:** The passage discusses young people but supplies no demographic information about India. A general concern affecting youth does not establish that a particular country has a young population.
- **B:** The final sentence says that schools and colleges choose strategies according to their culture, size and resources. This supports tailoring the response to each institution.
- **C:** The passage does not compare a planned combination of online and offline classes with other teaching arrangements. Difficulties during online-only restrictions do not establish the benefits of a hybrid model.
- **D:** The account links lack of social interaction and difficulty reconnecting with mental-health problems. Within that account, social connection is therefore an important factor in students' mental health.

KEYWORDS: institution specific response | social connection inference | unsupported policy conclusion

23

REASONING AND COMPREHENSION

Expression

Difficulty: Easy | 2026 · Q23 · Adapted practice | MSQ · 2 marks

Identify the versions with errors in grammar or punctuation.

I. Doctors have found high levels of cerebrospinal fluid in certain cases of cerebral palsy around the world. They also suggested its abnormal impact on speech and muscle movement.

II. Doctors have found high levels of cerebrospinal fluid in certain cases of cerebral palsy around the world, this finding suggests an abnormal impact on speech and muscle movement.

III. Having find high levels of cerebrospinal fluid in certain cases of cerebral palsy around the world, doctors are suggesting an abnormal impact on speech and muscle movement.

IV. Having found high levels of cerebrospinal fluid in certain cases of cerebral palsy around the world, doctors suggested its abnormal impact on speech and muscle movement.

A. I

B. II

C. III

D. IV

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: B, C

- **A:** Version I uses present perfect for a finding and simple past for a past suggestion. The tense change across separate sentences is possible. “Its” can refer to the fluid.
- **B:** Version II joins two independent clauses with only a comma. A period or semicolon can separate the finding from “this finding suggests an abnormal impact on speech and muscle movement.”
- **C:** Version III uses “find” after “having”. The perfect participle needs the past participle “found”.
- **D:** Version IV uses “having found” correctly. Doctors made the finding before making the suggestion.

KEYWORDS perfect participle | comma splice | tense sequence

24

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Hard | 2026 · Q24 | MSQ · 2 marks

In a cricket match amongst 7 friends, named P1 – P7, P1 scored maximum individual runs of 25 and P7 scored minimum individual run of 0. No two friends had the same score. The median and average runs scored were 15 and 12.57, not necessarily in that order. Two players, P2 and P3, who scored more than median but less than maximum, scored less than 40 runs together. One player scored double the sum of non-zero scores of two players. What could be the possible value(s) of the second highest score?

A. 18

B. 20

C. 21

D. 22

EXPLANATION

Correct answer: B, C

Cricket scores are integers. With seven players, the median is the fourth score in increasing order and must also be an integer. Thus the median is 15 and the mean is 12.57, rounded to two decimal places. The integer total consistent with that mean is 88, since $88/7 = 12.5714\ldots$.

Write the ordered scores as

$$0 < a < b < 15 < c < d < 25,$$

where the full seven-score list is $0, a, b, 15, c, d, 25$. Removing the fixed scores gives $a + b + c + d = 48$. Put $s = a + b$. Since $c + d < 40$ and is an integer, $s \geq 9$.

The score described as twice a sum must be $2(a + b) = 2s$. Any pair of nonzero scores involving 15 or a larger score has sum at least 16, whose double exceeds the maximum 25. Therefore only the two smallest positive scores can form that pair. Since $2s \geq 18$, the doubled score is either c or d; it cannot be 25 because it is even.

If $c = 2s$, then $d = 48 - 3s$. The condition $d > c$ gives $s < 9.6$, leaving only the integer $s = 9$. This gives $(c, d) = (18, 21)$.

If $d = 2s$, then $c = 48 - 3s$. Now $d > c$ gives $s > 9.6$, while $c > 15$ gives $s < 11$. Hence $s = 10$, giving $(c, d) = (18, 20)$.

- **A:** 18 is not a possible second-highest score. The exhaustive two cases give 20 or 21; 18 is the third-highest score in each.
- **B:** 20 is possible. The scores $0, 4, 6, 15, 18, 20, 25$ total 88, have median 15, satisfy $18 + 20 < 40$, and give $20 = 2(4 + 6)$.
- **C:** 21 is possible. The scores $0, 4, 5, 15, 18, 21, 25$ meet the same total and median conditions, satisfy $18 + 21 < 40$, and give $18 = 2(4 + 5)$.
- **D:** 22 is excluded by the two cases. For example, making it the doubled score would require $s = 11$ and then $c = 15$, duplicating the median rather than exceeding it.

Examples establish that B and C are feasible; the case analysis establishes that the other values cannot satisfy all the conditions.

KEYWORDS: integer score constraints | rounded mean total | ordered median | exhaustive case analysis | feasibility witness

25

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Easy | 2026 · Q25 | NAT · 2 marks

A police station has six personnel comprising an inspector (I) and five constables $(C_1, C_2, C_3, C_4, C_5)$. Normally, a 'raid team' of two, three, or four members is formed depending upon the nature of the raid. As per rule, it is mandatory that the inspector is part of raid team. Number of distinct raid teams that can be formed is _____. (Answer in integer)

Accepted answer: **25**

EXPLANATION

Correct answer: 25

The inspector is compulsory, so include that person before selecting anyone else. A team of two, three or four therefore needs respectively one, two or three constables chosen from the five available.

A team is determined by membership, not by the order in which members are selected. Use combinations:

$$\binom{5}{1} = 5, \qquad \binom{5}{2} = \frac{5\times4}{2} = 10, \qquad \binom{5}{3} = \frac{5\times4\times3}{3\times2\times1} = 10.$$

The three cases have different team sizes and cannot overlap. Add their counts:

$$5 + 10 + 10 = 25.$$

For instance, the inspector with constables C_1 and C_2 is the same team as the inspector with C_2 and C_1. This is why ordered selections must not be counted separately. Conversely, choosing two, three or four people freely from all six would include teams without the inspector and would violate the compulsory-membership rule.

As a check, there are $2^5 = 32$ possible subsets of the five constables. Exclude the empty subset, the five subsets of four constables, and the one subset of all five, since these produce total team sizes one, five and six. The remaining $32 - 1 - 5 - 1 = 25$ teams meet the conditions. Enter the exact integer **25**.

KEYWORDS: mandatory member combinations | disjoint team sizes | unordered selection

26

REASONING AND COMPREHENSION

Analytical Reasoning

Difficulty: Medium | 2026 · Q26 | NAT · 2 marks

A man visits four relatives on a day. He purchases some sweets and gives a part of it to the first relative. Next, he purchases the same number of sweets he is left with after he visited his first relative. He repeats this process while visiting his other relatives. Finally, he gives all the sweets to his fourth relative. It is known that he gives equal number of sweets to all the relatives and is left with no sweets after the fourth relative. Assuming that he initially purchased more than 20 sweets, the minimum number of sweets he gave to each relative is _____. (Answer in integer)

Accepted answer: **16**

EXPLANATION

Correct answer: 16

Let the initial purchase be x sweets and the equal gift to each relative be g sweets. After each of the first three visits, buying as many sweets as remain doubles the stock before the next gift.

The amounts left after successive gifts are

$$x - g, \qquad 2x - 3g, \qquad 4x - 7g, \qquad 8x - 15g.$$

The last amount is zero, so

$$8x = 15g \quad \Rightarrow \quad x = \frac{15g}{8}.$$

Both quantities are positive integers. Since 15 and 8 have no common factor, g must be a multiple of eight. Write $g = 8k$ and $x = 15k$ for a positive integer k. The initial purchase exceeds 20, so $15k > 20$ and the smallest possible k is two. Thus $g = 16$ and $x = 30$.

Check the complete sequence:

Visit	Sweets before gift	Gift	Sweets remaining
First	30	16	14
Second, after buying 14	28	16	12
Third, after buying 12	24	16	8
Fourth, after buying 8	16	16	0

The smaller candidate gift of eight would require an initial purchase of only 15, which fails the condition. Therefore **16 sweets per relative** is the exact minimum; there is no rounding involved.

KEYWORDS: repeated stock recurrence | integer divisibility | minimum feasible gift

27

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Mathematical Economics

Difficulty: Easy | 2026 · Q27 | MCQ · 1 mark

A is an $(n \times n)$ matrix. Consider the following two statements

Statement 1: Columns of matrix A are linearly independent

Statement 2: Inverse of matrix A exists

Which one of the following statements is TRUE?

A. Statement 1 is true if and only if Statement 2 is true

B. Statement 1 and Statement 2 can be individually true or false

C. Statement 1 implies Statement 2 but not the other way round

D. Statement 2 implies Statement 1 but not the other way round

EXPLANATION

Correct answer: A

For a square matrix, linear independence of all columns and existence of an inverse are equivalent. Both describe a matrix with full rank n.

To see one direction, independent columns imply that $Av = 0$ has only the zero solution. The associated linear map from an n-dimensional space to itself is then one-to-one and onto. Every vector has a unique preimage, which defines the inverse matrix.

For the reverse direction, suppose A^{-1} exists and $Av = 0$. Multiplying by the inverse gives $v = A^{-1}0 = 0$.

There is no nontrivial linear combination of columns equal to zero, so the columns are linearly independent. Hence Statement 1 is true if and only if Statement 2 is true.

- **B:** The truth values cannot vary independently. A square matrix cannot have independent columns but no inverse, or an inverse but dependent columns.
- **C:** The forward implication is valid, but the claimed failure of the reverse implication is false, as multiplication by the inverse shows.
- **D:** The reverse implication is valid, but it wrongly denies that full column rank makes a square matrix invertible.

The square-matrix condition matters. A rectangular matrix may have independent columns without possessing a two-sided inverse of the ordinary square-matrix kind.

KEYWORDS: invertible matrix theorem | column independence | full rank

28

MICROECONOMICS

Theory of Consumer Behaviour: Cardinal Approach and Ordinal Approach; Consumer Preferences; Nature of the utility function; Marshallian and Hicksian demand functions; Duality Theorem

Difficulty: Medium | 2026 · Q28 | MCQ · 1 mark

Madhu's utility function is given by U = max(2C, 3F), where C represents the amount of cloth and F represents the amount of food. Her preferences DO NOT satisfy which one of the following axioms?

A. Completeness

B. Continuity

C. Convexity

D. Transitivity

EXPLANATION

Correct answer: C

Convex preferences mean that mixing two equally attractive bundles should not produce a bundle that is worse than either. They express a weak preference for diversification rather than concentration.

The maximum in $U = \max\{2C, 3F\}$ has the opposite tendency. Consider the bundles $A = (3, 0)$ and $B = (0, 2)$. Their utility levels are equal:

$$U(A) = \max\{6, 0\} = 6, \qquad U(B) = \max\{0, 6\} = 6.$$

Their equally weighted mixture is $M = (1.5, 1)$. Its utility is

$$U(M) = \max\{3, 3\} = 3 < 6.$$

Thus an average of two indifferent bundles is strictly worse than both, providing a direct counterexample to convex preferences. The maximum rewards having a large amount of one component; reducing both components to create a mixture lowers the maximum.

- **A:** Completeness is satisfied because any two bundles receive real utility numbers that can be compared as greater than, less than or equal to each other.
- **B:** Continuity is satisfied: both $2C$ and $3F$ are continuous, and their maximum is continuous. The two branches meet at a kink without any jump in utility.
- **D:** Transitivity follows from the numerical ordering. If the utility of one bundle is at least that of a second, and the second at least that of a third, the first is at least as good as the third.

A convex numerical utility function is not the same thing as convex preferences. The latter require convex upper contour sets, equivalently a quasi-concave utility representation.

KEYWORDS: convex preferences | upper contour set | mixture counterexample | max utility

29

MACROECONOMICS

Components of Money Supply

Difficulty: Easy | 2026 · Q29 | MCQ · 1 mark

High powered money belongs to the

A. asset side of the central bank's balance sheet

B. liability side of the central bank's balance sheet

C. asset side of the commercial bank's balance sheet

D. liability side of the commercial bank's balance sheet

EXPLANATION

Correct answer: B

High-powered money, also called reserve money or the monetary base, consists principally of currency issued by the central bank and banks' reserve balances held with it. These are obligations of the issuer, so they appear on the liability side of the central bank's balance sheet.

A balance-sheet example makes the direction clear. When a central bank purchases a government security and credits a commercial bank's reserve account, the central bank acquires an asset—the security—and creates a liability—the reserve balance. The newly created reserve balance is part of high-powered money; the acquired security is not.

- **A:** Central-bank assets include items such as securities, loans and foreign reserves. These can be counterparts to monetary-base liabilities, but they are not the monetary base itself.
- **C:** A commercial bank does hold some high-powered money as assets, including cash and balances at the central bank. However, the entire monetary base also includes currency held by the public. The classification of high-powered money by its issuer is therefore the central bank's liability side.
- **D:** Customers' deposits are liabilities of commercial banks. They form part of broader money measures but are not, merely by being deposits, central-bank reserve money.

The same reserve balance is an asset to the commercial bank and a liability to the central bank. The perspective of the balance sheet is essential to interpreting the question.

KEYWORDS: monetary base | central bank liabilities | issuer holder perspective

30

INDIAN ECONOMY

Infrastructure Development: Physical and Social; Public-Private Partnerships

Difficulty: Easy | 2026 · Q30 | MCQ · 1 mark

Match Column I with Column II

Column I	Column II
P Amrit Bharat Station Scheme	1 To automate train protection system
Q Bharatmala Pariyojna	2 To enhance the amenities at railway stations
R Kavach	3 To develop the National Highways
S Pradhan Mantri Bhartiya Janaushaudhi Kendras	4 To provide some specific facilities for passengers passing through railway stations

A. (P→ 2), (Q→ 3), (R→ 1), (S→ 4)

B. (P→ 4), (Q→ 3), (R→ 1), (S→ 2)

C. (P→ 2), (Q→ 1), (R→ 3), (S→ 4)

D. (P→ 4), (Q→ 1), (R→ 3), (S→ 2)

EXPLANATION

Correct answer: A

Each initiative concerns a different infrastructure or passenger-service function.

Amrit Bharat Station Scheme → 2: Its focus is improvement and redevelopment of railway stations, including passenger amenities. It is the station-development programme in the list.

Bharatmala Pariyojna → 3: This is a road-infrastructure programme associated with national-highway development and improved road connectivity.

Kavach → 1: Kavach is an automatic train-protection system. Its role is railway operational safety, rather than building highways or providing station retail services.

Pradhan Mantri Bhartiya Janaushadhi Kendras → 4: In the railway-station context described in the Economic Survey 2024–25, these centres provide access to affordable medicines and related health needs for passengers and other visitors. Janaushadhi Kendras also operate outside railway premises; the programme is not restricted to stations.

The resulting sequence is P → 2, Q → 3, R → 1, S → 4.

- **B:** It reverses the station-redevelopment role and the more specific medicine-service role, although the highway and train-protection matches are correct.
- **C:** It interchanges Bharatmala and Kavach, assigning train protection to a highway programme and highway development to a railway safety system.
- **D:** It makes both exchanges: the two passenger/station descriptions and the highway/train-protection descriptions are mismatched.

The distinction between general station amenities and a particular health-related facility makes the first and fourth entries separable despite both benefiting passengers.

KEYWORDS: amrit bharat station scheme | bharatmala | kavach | janaushadhi

31

MICROECONOMICS

Non-Cooperative games: Constant sum game, Mixed Strategy & Pure Strategy, Bayesian Nash Equilibrium, SPNE, Perfect Bayesian Equilibria

Difficulty: Easy | 2026 · Q31 | MCQ · 1 mark

Two players use the following procedure to divide a perfectly homogeneous and continuously divisible cake. First, Player 1 divides the cake into two pieces and then Player 2 chooses one of the pieces. Player 1 gets the remaining piece. Each player cares only about the size of the piece s/he gets. How is the cake divided in a sub-game perfect equilibrium if both the players are rational?

A. Player 1 gets the whole cake

B. Player 2 gets the larger piece

C. Each player gets half of the cake

D. The outcome cannot be decided based on the given information

EXPLANATION

Correct answer: C

Solve from the chooser's decision backwards. Once the cake has been cut, Player 2 selects the larger piece, because only size matters. If the two pieces are equal, either choice gives the same amount.

Let Player 1 cut shares s and $1 - s$ of the whole cake. After Player 2's optimal choice, Player 1 is left with

$$\min\{s, 1 - s\}.$$

Player 1 therefore chooses the cut that makes this smaller share as large as possible. If $s < 1/2$, increasing it improves the share left over; if $s > 1/2$, decreasing it does so. The maximum is attained at $s = 1/2$.

Both pieces are then half the cake, and each player receives one-half. The conclusion follows from self-interest and the order of decisions, without needing an additional fairness preference.

- **A:** Player 1 cannot keep the whole cake because Player 2 chooses first after the cut and would take a whole-cake piece rather than an empty one.
- **B:** Taking the larger piece describes Player 2's response to an unequal cut, but an unequal cut is not Player 1's optimal initial decision. At equilibrium there is no larger piece.
- **D:** Homogeneity, continuous divisibility and preferences based only on size provide enough information to determine the final shares, even though the chooser may be indifferent between the equal pieces.

KEYWORDS: divide and choose | backward induction | subgame perfect equilibrium

32

PUBLIC ECONOMICS

Market Failure and Remedial Measures: Asymmetric Information, Public Goods, Externality

Difficulty: Easy | 2026 · Q32 | MCQ · 1 mark

Which one of the following statements regarding externality is TRUE?

A. Cigarette smoking creates positive externality

B. A ban on smoking is Pareto optimal

C. Competitive market with a negative externality produces more than socially optimal output

D. Cigarette smoking does not create externality

EXPLANATION

Correct answer: C

A negative externality is a cost imposed on someone outside the market transaction without being fully reflected in the price. When production creates such a cost, firms respond to private marginal cost, while society bears private cost plus external damage.

In the usual competitive model, market output satisfies marginal benefit equal to private marginal cost. Efficient output instead equates marginal benefit with the higher social marginal cost. With downward-sloping marginal benefit and the usual cost conditions, the unregulated market therefore produces too much. A harmful consumption externality gives the corresponding result because private marginal benefit exceeds social marginal benefit.

- **A:** Smoking exposes other people to second-hand smoke. This harm is a negative externality; enjoyment received by the smoker is a private benefit, not a positive spillover to others.
- **B:** A complete ban can be Pareto inefficient. If the benefits of the first units exceed private and external costs, allowing some consumption generates a surplus. With feasible compensating transfers, those gains can make both sides better off.
- **D:** Effects on nearby nonsmokers are precisely an external effect. Counting only the smoker's own costs and benefits leaves out those affected third parties.

KEYWORDS: negative externality | overproduction | private social cost

33

MACROECONOMICS

Demand and Supply of Money

Difficulty: Easy | 2026 · Q33 | MCQ · 1 mark

According to the theory of Keynesian Liquidity Preference, demand for money

A. is only for transaction purposes

B. does not depend on the interest rate

C. depends on income and interest rate

D. is only for precautionary purposes

EXPLANATION

Correct answer: C

Keynesian liquidity preference explains why people wish to hold part of their wealth as money despite the return available on other assets. Transactions and precautionary balances facilitate payments, while speculative balances reflect the choice between money and interest-bearing assets.

The usual real money-demand function is written

$$\frac{M^d}{P} = L(Y, i),$$

where Y is real income and i the nominal interest rate. Higher income generally raises spending and the balances needed for transactions, so $L_Y > 0$. A higher interest rate increases the interest income forgone by holding money, so standard money demand decreases with the rate: $L_i < 0$.

Both income and the interest rate therefore matter, as stated in C. The two variables capture different considerations: the scale of payments and the opportunity cost of liquidity.

- **A:** Transactions are one motive, but the theory also includes precautionary and speculative holdings. Restricting demand to transactions omits these other reasons.
- **B:** Interest-rate sensitivity is central to speculative demand and to the opportunity cost of holding money. Removing it contradicts the liquidity-preference formulation.
- **D:** Precautionary balances protect against uncertain expenses, but they do not exhaust the demand for money. Routine transactions and portfolio decisions also matter.

The model concerns desired money balances at a point in time, not the amount of income spent over a period.

KEYWORDS: liquidity preference | income money demand | interest opportunity cost

34

MACROECONOMICS

Theories of Inflation and Expectations Augmented Phillips Curve

Difficulty: Easy | 2026 · Q34 | MCQ · 1 mark

Unanticipated inflation rate, percentage change of output from full employment level, and the Okun's law yield (i) _____ and it represents (ii) _____ side of the economy. Which one of the following combinations of (i) and (ii) make the above sentence correct as per economic theory?

A. (i) Expectation augmented Phillips curve; (ii) supply

B. (i) Expectation augmented Phillips curve; (ii) demand

C. (i) Phillips-Okun's curve; (ii) supply

D. (i) Phillips-Okun's curve; (ii) demand

EXPLANATION

Correct answer: A

The expectations-augmented Phillips curve links unexpected inflation to the unemployment gap. In a simple form without a supply-shock term,

$$\pi - \pi^e = -\beta(u - u^*), \qquad \beta > 0.$$

Okun's law links the output gap to the same unemployment gap. Let x be the percentage deviation of output from full employment and let $\gamma > 0$ be the Okun coefficient:

$$x = -\gamma(u - u^*).$$

Substituting $u - u^* = -x/\gamma$ into the first equation gives

$$\pi - \pi^e = \frac{\beta}{\gamma}x.$$

This is the output-gap representation of the expectations-augmented Phillips curve. It relates unanticipated inflation to real activity: output above full employment is associated with inflation above its expected rate, given the model's other conditions.

The relationship describes the economy's supply side, connecting price or wage adjustment with production and labour-market pressure. Aggregate demand would instead describe desired expenditure arising from consumption, investment, fiscal policy and monetary conditions.

- **B:** It names the curve correctly but assigns it to the demand side. The inflation–activity relationship is an aggregate-supply relation.
- **C:** "Phillips–Okun's curve" is not the standard name for the resulting expectations-augmented relationship. Okun's law converts its unemployment gap into an output gap.
- **D:** It uses the nonstandard name and also misclassifies the relationship as demand-side.

KEYWORDS: expectations augmented phillips curve | okun conversion | aggregate supply

35

MACROECONOMICS

Investment Function Specifications - Dale Jorgenson's Neoclassical Theory of Capital Accumulation and Tobin's

Difficulty: Easy | 2026 · Q35 | MCQ · 1 mark

In an economy, which one of the following relates private investment to the stock market?

A. Neo-classical theory of capital accumulation

B. Capital asset pricing model

C. Tobin's q

D. Investment accelerator model

EXPLANATION

Correct answer: C

Tobin's q provides a direct link between financial-market valuation and firms' investment in real capital. It compares the market value of installed capital with the cost of replacing it:

$$q = \frac{\text{market value of the firm's installed capital}}{\text{replacement cost of that capital}}.$$

Stock prices help determine the market-value numerator. When the market values an additional unit of installed capital more highly than its acquisition and installation cost, expanding capital becomes attractive. In the simplified interpretation, a higher q therefore encourages investment, while a lower q discourages it.

The underlying investment condition concerns marginal q, the value of one additional unit of capital relative to its cost. The observable average ratio is used as a guide under assumptions that make average and marginal valuations closely related.

- **A:** Neoclassical capital-accumulation theory determines desired capital by comparing its marginal product with its user cost. Financial conditions matter, but the named stock-market valuation ratio belongs to Tobin's theory.
- **B:** The capital asset pricing model relates an asset's expected return to systematic risk. It can inform financing costs, but it is not the investment-to-replacement-cost mechanism asked for here.
- **D:** The accelerator model links investment to changes in output or demand through the desired capital stock. Its immediate driving variable is output growth, not stock-market valuation.

KEYWORDS: tobins q | stock market valuation | investment incentive

36

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Basic Statistics

Difficulty: Easy | 2026 · Q36 | MCQ · 1 mark

Suppose, a random variable X follows a Normal distribution with mean μ, and variance σ^2. The variance of the distribution is unknown. For testing $\mu = 10$ against the alternative $\mu > 10$, the distribution of the test statistic is

A. Standard Normal distribution

B. Student's t distribution

C. Normal distribution

D. F distribution

EXPLANATION

Correct answer: B

When a normal population's variance is unknown, the standard mean test replaces the population standard deviation with the sample standard deviation. This introduces extra sampling uncertainty, producing a Student's t statistic rather than an exact standard normal statistic.

For an independent sample of size $n > 1$, the test statistic under the null is

$T = \frac{\bar{X}-10}{S/\sqrt{n}}$,

where S^2 is the sample variance using the divisor $n-1$. Under $H_0 : \mu = 10$, this statistic follows a t distribution with $n-1$ degrees of freedom.

The normal-sample mean is normal, but dividing by an estimated standard deviation changes the distribution. More precisely, the standardized mean is independent of the sample variance, and $(n-1)S^2/\sigma^2$ has a chi-square distribution; their ratio generates the t distribution.

- **A:** A standard normal statistic is exact when the population variance is known and used in the denominator. It is only a large-sample approximation when the variance is estimated.
- **C:** The sampling distribution of the mean itself is normal, but the question asks about the test statistic using the unknown variance, not the unstandardized mean.
- **D:** An F statistic can arise by squaring a t statistic, but that loses its sign. The direct test against $\mu > 10$ uses the upper tail of the signed t statistic.

The one-sided alternative changes the rejection region, not the null distribution family.

KEYWORDS: student t test | unknown population variance | normal sample mean

37

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Basic Statistics

Difficulty: Easy | 2026 · Q37 | MCQ · 1 mark

The Factorization theorem of Neyman is used to identify

A. consistent statistic

B. efficient statistic

C. sufficient statistic

D. unbiased statistic

EXPLANATION

Correct answer: C

A sufficient statistic retains all the sample information relevant to a parameter within the statistical model. Once its value is known, the conditional distribution of the full sample no longer depends on that parameter.

The Neyman–Fisher factorization theorem provides a practical way to establish this property. Under the theorem's usual conditions, a statistic $T(X)$ is sufficient for θ if the joint density or probability mass can be written as

$$f_\theta(x) = g_\theta(T(x))h(x),$$

where $h(x)$ does not depend on θ. All parameter-dependent information in the likelihood then passes through the statistic $T(x)$.

For example, for independent Bernoulli observations with success probability p, the likelihood is

$$p^{\sum x_i}(1-p)^{n-\sum x_i}.$$

It depends on the data through the total number of successes, so that total is sufficient for p.

- **A:** Consistency concerns convergence to a parameter as sample size grows. Factorization is a statement about information in a sample, not a probability limit.
- **B:** Efficiency compares an estimator's variance or precision with a benchmark or other estimators. Sufficiency by itself does not make that comparison.
- **D:** Unbiasedness requires an estimator's expectation to equal the parameter. The factorization theorem does not impose this expectation condition.

A statistic can be sufficient without itself being an unbiased estimator of the parameter; “retains information” and “has the correct mean” are different properties.

KEYWORDS: factorization theorem | sufficient statistic | parameter information

38

DEVELOPMENT ECONOMICS

Theories of Economic Development: Adam Smith, David Ricardo, Karl Marx, J. Schumpeter, W. Rostow, Balanced & Unbalanced Growth, Big Push Approach

Difficulty: Easy | 2026 · Q38 | MCQ · 1 mark

Match Column I with Column II

Column I	Column II
P Rostow	1 Expanding variety model
Q Schumpeter	2 Rural-urban migration
R Harris-Todaro	3 Stages of development
S Grossman-Helpman	4 Creative-destruction

A. (P→3), (Q→ 1), (R→ 2), (S→ 4)

B. (P→ 3), (Q→ 4), (R→ 2), (S→ 1)

C. (P→ 2), (Q→ 1), (R→ 3), (S→ 4)

D. (P→ 2), (Q→ 4), (R→ 3), (S→ 1)

EXPLANATION

Correct answer: B

The matching follows the central mechanism associated with each economist or model.

Rostow corresponds to stages of development (P → 3). His framework describes an economy moving through successive stages, including take-off and movement towards maturity.

Schumpeter corresponds to creative destruction (Q → 4). Innovation introduces new products and production methods that displace established firms, technologies or ways of organizing production. Growth involves this replacement process, not just adding more of the same inputs.

Harris–Todaro corresponds to rural-urban migration (R → 2). Migration responds to expected earnings, including the probability of obtaining an urban job, allowing migration and urban unemployment to coexist.

Grossman–Helpman corresponds to the expanding-variety model (S → 1). Innovation can expand the range of differentiated products available in the economy, linking research incentives, trade and growth.

Together these give P → 3, Q → 4, R → 2 and S → 1.

- **A:** It keeps Rostow and Harris–Todaro correctly matched but interchanges Schumpeter's creative-destruction association and the expanding-variety association.
- **C:** It swaps both pairs: Rostow is not the migration model, Harris–Todaro is not the stages framework, and the two innovation associations are also misplaced.
- **D:** It gets the two innovation associations right but reverses Rostow and Harris–Todaro.

These matches identify the intended contributions; they do not imply that each author wrote about only one growth mechanism. In particular, Grossman and Helpman also developed models involving quality improvement.

KEYWORDS: rostow | schumpeter | harris todaro | grossman helpman | growth theories

39

PUBLIC ECONOMICS

Market Failure and Remedial Measures: Asymmetric Information, Public Goods, Externality

Difficulty: Easy | 2026 · Q39 | MCQ · 1 mark

Goods that come under the purview of "tragedy of commons" are (i)_____ and (ii)_____. Which one of the following combinations of (i) and (ii) makes the above sentence correct as per the economic theory?

A. (i) non-rivalrous; (ii) excludable

B. (i) rivalrous; (ii) excludable

C. (i) non-rivalrous; (ii) non-excludable

D. (i) rivalrous; (ii) non-excludable

EXPLANATION

Correct answer: D

A common-pool resource combines **rivalry** with **non-excludability**. Rivalry means that one person's use reduces what remains available to others. Non-excludability means that preventing access is difficult or costly.

For example, fish caught from an open-access fishing ground are no longer available to other fishers, yet excluding additional fishers may be difficult. Each fisher receives the benefit of their own catch while part of the cost of depletion falls on others. These incentives can lead to excessive extraction: the tragedy of the commons.

- **A:** Non-rival but excludable goods are club goods in the standard classification. Exclusion allows access to be controlled, while an additional user does not reduce others' consumption within the relevant capacity limit.
- **B:** Rival and excludable goods are private goods. Ownership can restrict access, so this combination does not describe the open-access problem in the question.
- **C:** Non-rival and non-excludable goods are public goods. Their central problem is often underprovision through free riding, rather than depletion through rival use.

Rivalry explains why one user's extraction leaves less for others. Rules that limit extraction can change that incentive even where exclusion is difficult.

KEYWORDS: common pool resources | rivalry | non excludability | tragedy of commons

40

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Econometrics

Difficulty: Medium | 2026 · Q40 | MSQ · 1 mark

Consider a two-variable (x, y) linear regression model given in Equations (1) and (2) below. The error term, u_t, of Equation (1) is serially correlated as given in Equation (2). The error term, ϵ_t, of Equation (2) is white noise. All other assumptions of the Classical Linear Regression Model (CLRM) hold. Then, which of the following options is/are FALSE?

$$y_t = \alpha + \beta x_t + u_t \qquad (1)\ u_t = \rho u_{t-1} + \epsilon_t;\ 0 < \rho < 1 \qquad (2)$$

A. Ordinary Least Squares estimators of the parameters in Equation (1) are biased

B. Ordinary Least Squares estimators of the parameters in Equation (1) are asymptotically normally distributed

C. Ordinary Least Squares estimators of the parameters in Equation (1) are efficient

D. Ordinary Least Squares estimators of the parameters in Equation (1) are consistent

EXPLANATION

Correct answer: A, C

The restriction $0 < \rho < 1$ makes the AR(1) recursion stable: the effect of an initial condition decays geometrically. Exact stationarity additionally requires a compatible initial distribution. Serial correlation changes the covariance structure of the disturbances. The statement that the other classical assumptions hold preserves exogeneity, so it does not automatically create correlation between the regressors and the errors.

The OLS estimation error remains $(X'X)^{-1}X'u$. A zero conditional mean therefore preserves unbiasedness. Under the maintained regularity conditions, the stable dependence also permits consistency and an asymptotic normal distribution, but the variance must account for serial correlation.

The question asks for the **false** statements:

- **A:** Selected. The assertion of bias is false under the maintained exogeneity assumptions. Serially correlated errors alone do not imply biased coefficients.
- **B:** Not selected. Asymptotic normality holds under the usual regularity conditions for this stable error process and the regressors. The relevant asymptotic covariance differs from the independent-error formula.
- **C:** Selected. The ordinary efficiency claim is generally false. Generalized least squares can exploit the known error covariance structure, whereas OLS does not generally attain that precision.
- **D:** Not selected. OLS remains consistent under the maintained assumptions; dependence with $|\rho| < 1$ does not by itself move its probability limit away from the true coefficient.

Conventional independent-error standard errors can be wrong even when coefficients remain unbiased and consistent. Appropriate serial-correlation-robust inference addresses that variance issue; it does not change the distinction between exogeneity and dependence across errors.

KEYWORDS: serial correlation | ols properties | stable ar errors | efficiency loss

41

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Basic Statistics

Difficulty: Easy | 2026 · Q41 | NAT · 1 mark

Suppose, a random variable X follows a Poisson distribution with parameter λ = 25. The coefficient of variation of the distribution is _____ (rounded off to two decimal places)

Accepted answer: **0.19 to 0.21 (inclusive)**

EXPLANATION

Correct answer: 0.20

The coefficient of variation measures dispersion relative to the mean. In ratio form it is the standard deviation divided by the mean, provided the mean is positive:

$CV = \frac{\sigma}{\mu}$.

For a Poisson distribution, both the mean and the variance equal the parameter λ. Here

$E(X) = 25, \qquad \mathrm{Var}(X) = 25,$

so the standard deviation is $\sqrt{25} = 5$. Consequently,

$CV = \frac{5}{25} = \frac{1}{5} = 0.20.$

It is essential to take the square root of the variance before forming this ratio. Dividing variance by mean would give one for a Poisson distribution, but that is a different measure, often called the variance-to-mean ratio.

The coefficient can also be written generally as $1/\sqrt{\lambda}$ for a Poisson variable. Larger expected counts therefore have lower relative variation even though their absolute variance is larger.

The question's answer is expressed as the dimensionless ratio **0.20** to two decimal places. The same relative dispersion may be described as 20% when a percentage convention is requested; 20 and 0.20 are different numerical representations of the same comparison, so the convention must be kept clear.

KEYWORDS: poisson moments | coefficient of variation | relative dispersion

42

MICROECONOMICS

Theory of Production and Costs: Short-run and Long-run Analysis

Difficulty: Easy | 2026 · Q42 | NAT · 1 mark

You and three of your friends go to a restaurant for dinner. All four of you agree to divide the total bill equally amongst yourselves. One of your friends orders a dish worth INR 400. The marginal cost for ordering the dish for each one of you in INR is _____ (in integer)

Accepted answer: **100**

EXPLANATION

Correct answer: 100

Marginal cost here means the extra amount each person must pay because this additional dish is ordered. The agreement is to divide the total bill equally among four people, regardless of who orders a particular dish.

Let the bill before the extra dish be B. Each person initially owes $B/4$. Adding the dish raises the total bill to $B + 400$, so the change in each person's payment is

$$\frac{B + 400}{4} - \frac{B}{4} = \frac{400}{4} = 100.$$

Thus each of the four diners pays **₹100 more**. This includes the person who ordered the dish; the ordering decision does not change the equal-sharing rule.

The total additional expenditure for the group remains ₹400. Its distribution is ₹100 to each person, and $4(100) = 400$ provides a simple accounting check. Neither ₹400 per person nor ₹400 divided only among the other three diners follows from the agreement.

The distinction also illustrates why shared bills can change incentives. The person selecting the dish bears only one-quarter of the added bill, while the other three people together bear the remaining ₹300. The question asks for the private payment increase per person, not the restaurant's resource cost of preparing the dish.

KEYWORDS: equal bill sharing | private marginal cost | cost allocation

43

MICROECONOMICS

Theory of Firm: Market Structures — Competitive and Non-competitive equilibria and their efficiency properties

Difficulty: Easy | 2026 · Q43 | NAT · 1 mark

The inverse demand function for the first book on "Economics of Digital Public Infrastructure in India" is given by $p = 200 - 0.002Q$; where, p is the price of the book, and Q is the number of books purchased. The publisher's marginal cost is $60 + 0.0168Q$. The author's royalty is 25% of the total revenue. The optimal price of the book from the author's perspective is _____ (in integer)

Accepted answer: **100**

EXPLANATION

Correct answer: 100

The author receives a fixed percentage of sales revenue, not a percentage of the publisher's profit. Multiplying revenue by 25% changes its level but not the price or quantity at which it is maximised.

Revenue as a function of book sales is

$$R(Q) = (200 - 0.002Q)Q = 200Q - 0.002Q^2.$$

Royalty income is $0.25R(Q)$. Its derivative is zero at the same quantity as the derivative of revenue:

$$R'(Q) = 200 - 0.004Q = 0 \quad \Rightarrow \quad Q^* = 50000.$$

Because $R''(Q) = -0.004 < 0$, this quantity maximises revenue. Substitution into inverse demand gives

$$p^* = 200 - 0.002(50000) = 100.$$

The author's preferred price is therefore **₹100**. At this point revenue is ₹50,00,000, and the 25% royalty is ₹12,50,000.

The publisher's marginal-cost function does not enter this objective. It would matter when maximising the publisher's own profit, which deducts production costs and royalty payments. Equating marginal revenue to the given production marginal cost would answer a different optimisation problem. Before differentiating, identify whose payoff is being maximised and whether that payoff is based on revenue or on profit.

KEYWORDS: revenue maximization | royalty incentive | linear demand

44

MACROECONOMICS

Money Multiplier

Difficulty: Easy | 2026 · Q44 | NAT · 1 mark

When the currency-deposit ratio is 0, and the reserve-deposit ratio is 0.5, then the value of the money multiplier is _____ (in integer)

Accepted answer: **2**

EXPLANATION

Correct answer: 2

The money multiplier links the money supply held by the public to the monetary base. In the basic currency-and-deposit model, let C be public currency, D bank deposits and R bank reserves. Then money is $M = C + D$, while the monetary base is $H = C + R$.

Divide numerator and denominator of M/H by deposits. With the currency–deposit ratio $c = C/D$ and the reserve–deposit ratio $r = R/D$, this gives

$m = \frac{M}{H} = \frac{1+c}{c+r}$.

Here $c = 0$ and $r = 0.5$, so

$m = \frac{1+0}{0+0.5} = 2$.

No currency leaks out of the deposit system in this setup. All of the base is held as bank reserves, and reserves equal half of deposits. Thus 100 units of reserves support 200 units of deposits; with no public currency, money also equals 200. The ratio of money to the base is consequently two.

The reserve ratio is already written as the fraction 0.5, equivalent to 50%. It should not be treated as 0.5%. Also, the reciprocal formula $1/r$ works here because the currency–deposit ratio is zero; the full expression is needed when people hold currency.

The multiplier is dimensionless and exactly equals the integer **2**.

KEYWORDS: money multiplier | currency deposit ratio | reserve deposit ratio

45

MICROECONOMICS

Non-Cooperative games: Constant sum game, Mixed Strategy & Pure Strategy, Bayesian Nash Equilibrium, SPNE, Perfect Bayesian Equilibria

Difficulty: Medium | 2026 · Q45 | MCQ · 2 marks

Two companies, Company 1 and Company 2, are playing a simultaneous-move game. They are selling competing devices, whose quantity demanded are given by x_1 and x_2, and their prices are p_1 and p_2, respectively. The demand equation for the device of Company 1 is $x_1 = 300(90 - 0.5p_1 + 0.25p_2)$, and that of Company 2 is $x_2 = 300(90 - 0.5p_2 + 0.25p_1)$. The cost of production of both devices is zero. Each company is interested in maximizing its own profit.

Which one of the following price combinations constitutes the Nash equilibrium of the game?

A. $p_1 = 90, p_2 = 90$

B. $p_1 = 120, p_2 = 120$

C. $p_1 = 45, p_2 = 45$

D. $p_1 = 105, p_2 = 75$

EXPLANATION

Correct answer: B

With zero production cost, each company maximises its own sales revenue. Company 1's profit is

$$\pi_1 = 300p_1(90 - 0.5p_1 + 0.25p_2).$$

When it changes p_1, it takes p_2 as given. Differentiating gives $300(90 - p_1 + 0.25p_2) = 0$, so its price response is $p_1 = 90 + 0.25p_2$. By the same calculation, company 2's response is $p_2 = 90 + 0.25p_1$.

At a Nash equilibrium both conditions hold. Subtracting them implies $p_1 = p_2 = p$, and then

$$p = 90 + 0.25p \quad \Rightarrow \quad 0.75p = 90, \qquad p = 120.$$

Each company's own-price second derivative is -300, and demand at this pair is $300(90 - 60 + 30) = 18000$, so the solution is an interior revenue maximum for each against the other's price.

- **A:** Against a rival price of 90, the best-response price is $90 + 0.25(90) = 112.5$, not 90. The cross-price effect cannot be omitted.
- **C:** Against a rival price of 45, the optimal response is 101.25. A price of 45 therefore leaves a profitable unilateral price increase.
- **D:** Against $p_2 = 75$, company 1 prefers 108.75 rather than 105; against $p_1 = 105$, company 2 prefers 116.25 rather than 75. The proposed asymmetric pair satisfies neither response condition.

A simultaneous equilibrium is an intersection of best responses, not simply a price pair that gives both companies positive sales.

KEYWORDS: differentiated bertrand competition | price best response | nash equilibrium

46

INDIAN ECONOMY

Rural & Urban Development – Issues, Challenges & Policy Responses

Difficulty: Medium | 2026 · Q46 · Adapted practice | MCQ · 2 marks

Match the schemes with their documented 2024 provisions.

Column I	Column II
P e-NAM	1 Working-capital loans to women's self-help groups through agricultural credit cooperatives
Q PM Formalisation of Micro Food Processing Enterprises Scheme (PMFME)	2 ₹40,000 seed capital per eligible SHG member; 50% grant for eligible group branding/marketing costs
R Adivasi Mahila Sashaktikaran Yojana	3 Eligible Scheduled Tribe women: finance up to 90% of project cost; project-cost ceiling ₹2 lakh; beneficiary interest 4%
S Swayam Shakti Sahakar Yojna	4 Electronic agricultural trading and transparent price discovery

A. (P→ 3), (Q→ 2), (R→ 4), (S→ 1)

B. (P→ 4), (Q→ 2), (R→ 3), (S→ 1)

C. (P→ 1), (Q→ 2), (R→ 4), (S→ 3)

D. (P→ 4), (Q→ 1), (R→ 2), (S→ 3)

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: B

The matching follows the distinct purpose of each programme.

e-NAM → 4: The electronic National Agriculture Market links agricultural markets through online trading arrangements and supports transparent price discovery. It is a marketing platform, rather than a general working-capital loan programme.

PM Formalisation of Micro Food Processing Enterprises Scheme → 2: PMFME includes seed-capital support of INR 40,000 per eligible self-help-group member and support covering 50% of eligible branding and marketing expenditure for qualifying groups. These are targeted forms of support, not unconditional payments to every enterprise.

Adivasi Mahila Sashaktikaran Yojana → 3: This is the concessional-credit scheme for Scheduled Tribe women associated with the 4% beneficiary interest rate. It provides financing of up to 90% of project cost for projects costing up to INR 2 lakh. For a project costing INR 2 lakh, a 90% financing ceiling would permit up to INR 1.8 lakh of this term finance.

Swayam Shakti Sahakar Yojna → 1: It supports lending through credit cooperatives to women's self-help groups, including working-capital finance.

- **A:** It wrongly exchanges the e-NAM market-platform role and the tribal-women credit scheme.
- **C:** It gets the food-processing provision right, but assigns the credit-cooperative role to e-NAM and switches the market platform and tribal-women credit provisions.
- **D:** It correctly connects e-NAM with price discovery but misassigns the other three financial-support descriptions.

Sources: Tribal Affairs Annual Report 2023–24, section 12.4; NCDC scheme compendium, 22 May 2024; Food Processing Ministry PMFME scheme; Agriculture Ministry e-NAM launch, 14 April 2016.

KEYWORDS: enam | pmfme | adivasi mahila sashaktikaran | swayam shakti sahakar | scheme matching

47

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Basic Statistics

Difficulty: Easy | 2026 · Q47 | MCQ · 2 marks

Suppose that X_1, X_2, X_3 and X_4 are independent random variables with common distribution $N(4, 12)$. Observations $x_1 = 6, x_2 = 3, x_3 = 1$, and $x_4 = 10$ correspond to X_1, X_2, X_3 and X_4, respectively. What is the sample mean and its sampling distribution?

A. 4 and N(4, 3)

B. 5 and N(4, 3)

C. 4 and N(5, 12)

D. 5 and N(4, 12)

EXPLANATION

Correct answer: B

The realized sample mean and its sampling distribution are different objects. The first is calculated from the particular observed data; the second describes how the mean would vary across repeated samples from the population.

For the observations given,

$\bar{x} = \frac{6+3+1+10}{4} = \frac{20}{4} = 5.$

Before observing the sample, the random mean is $\bar{X} = (X_1 + X_2 + X_3 + X_4)/4$. Its expected value is the population mean:

$E(\bar{X}) = \frac{4+4+4+4}{4} = 4.$

Independence makes the variances add. Taking account of the squared factor $1/4$,

$\mathrm{Var}(\bar{X}) = \frac{1}{16}(12 + 12 + 12 + 12) = 3.$

A linear combination of independent normal variables is normal, so the sampling distribution is exactly $N(4, 3)$. This result does not require a large-sample approximation. The second parameter is the variance, consistent with the notation $N(4, 12)$ in the question.

- **A:** Its sampling distribution is correct, but it reports the population mean 4 instead of the observed sample mean 5.
- **C:** It confuses the observed value with the distribution's mean and fails to reduce the variance when averaging four independent observations.
- **D:** It gives the observed mean correctly but retains the individual variance 12. Averaging reduces that variance to $12/4 = 3$.

KEYWORDS: sample mean | sampling distribution | normal averaging | variance of mean

48

MACROECONOMICS

The Impossible Trinity

Difficulty: Easy | 2026 · Q48 | MCQ · 2 marks

Which one of the following combinations of simultaneous policy actions is NOT possible?

A. Country A allows full international capital mobility, conducts an independent monetary policy, and follows a floating exchange rate regime

B. Country A allows full international capital mobility, conducts an independent monetary policy, and follows a fixed exchange rate regime

C. Country A allows full international capital mobility, cannot conduct an independent monetary policy, and follows a fixed exchange rate regime

D. Country A does not allow full international capital mobility, conducts an independent monetary policy, and follows a fixed exchange rate regime

EXPLANATION

Correct answer: B

The impossible trinity states that a country cannot simultaneously maintain a fixed exchange rate, unrestricted international capital mobility and an independent monetary policy. It can combine two of these objectives only by giving up the third in the standard trilemma framework.

The conflict arises through international capital flows. With full mobility and a credible peg, the domestic interest rate is constrained by foreign returns. If the central bank tries to lower its rate independently, capital-outflow pressure threatens the exchange-rate commitment. Defending the peg requires intervention that removes domestic liquidity and undermines the attempted monetary easing.

B therefore combines the three incompatible objectives: full mobility, monetary independence and a fixed rate.

- **A:** This is feasible in the benchmark. A floating exchange rate can adjust while the country retains open capital markets and an independently chosen monetary stance.
- **C:** This is also feasible. A fixed rate and open capital markets can coexist when monetary policy is subordinated to maintaining the exchange-rate commitment.
- **D:** Effective restrictions on capital mobility can make room for monetary autonomy alongside a peg. The restriction relaxes the arbitrage pressure that creates the three-way conflict.

The trilemma concerns fully fixed exchange rates, free capital movement and full monetary independence. Partial controls can reduce the trade-off without restoring full independence.

KEYWORDS: impossible trinity | capital mobility | monetary autonomy | fixed exchange rate

49

INTERNATIONAL ECONOMICS

Trade Policy Issues

Difficulty: Easy | 2026 · Q49 | MCQ · 2 marks

Match Column I with Column II

Column I	Column II
P Infant Industrialization	1 When a firm charges lower prices in the export market than in the domestic market
Q High Performing Asian Economy	2 Industrialized not via import substitution but via export promotion of manufactured goods
R National Procurement	3 New industries need a temporary period of protection from foreign companies
S Dumping	4 Government or publicly regulated firms are directed to purchase expensive domestic goods than cheap imports

A. (P→ 3), (Q→ 2), (R→ 1), (S→ 4)

B. (P→ 3), (Q→ 2), (R→ 4), (S→ 1)

C. (P→ 3), (Q→ 1), (R→ 4), (S→ 2)

D. (P→ 4), (Q→ 2), (R→ 1), (S→ 3)

EXPLANATION

Correct answer: B

Match each term to its policy mechanism rather than treating all forms of domestic-industry support as interchangeable.

P, infant industrialization, matches 3. The infant-industry argument proposes temporary protection so a new industry can develop productive capabilities or learning benefits before facing full foreign competition. The argument requires eventual competitiveness; it does not justify permanent protection merely because an industry is domestic.

Q, high-performing Asian economy, matches 2 in the question's stylized description. Manufactured-export promotion was a prominent feature of East Asian industrialization. The contrast should not be read as a claim that every such economy used no import-substitution measures at any stage.

R, national procurement, matches 4. A purchasing rule favouring domestic suppliers can sustain demand for their goods even when imports are cheaper. The mechanism is a procurement preference.

S, dumping, matches 1. Its basic trade-theory meaning is selling abroad below the comparable domestic-market price. Formal anti-dumping determinations use the more precise comparison with "normal value," including appropriate comparability adjustments.

The complete mapping is **P–3, Q–2, R–4, S–1**.

- **A:** P and Q are correct, but procurement and dumping are interchanged. Buying domestic goods is not an export-pricing practice.
- **C:** P and R are correct, but the export-promotion strategy and dumping description are assigned to the wrong terms.
- **D:** Only Q is correct. Temporary protection belongs to infant industry, domestic purchasing preference to procurement, and lower export pricing to dumping.

The four mechanisms involve different decisions: protection, industrial export strategy, public purchasing and firms' international pricing.

KEYWORDS: infant industry | export promotion | procurement preferences | dumping

50

DEVELOPMENT ECONOMICS

Models of Economic Growth: Harrod-Domar, Solow, Ramsey

Difficulty: Easy | 2026 · Q50 | MCQ · 2 marks

Consider a Solow growth model with the production function $Y_t = K_t^{\alpha} N_t^{1-\alpha}; 0 < \alpha < 1$; where, Y_t is aggregate output at time t; K_t is aggregate capital stock at time t; N_t is the number of workers at time t. There is population growth but no technology growth. Let $0 < s < 1$ be the savings rate, $0 < n < 1$ be the population growth rate, and $0 < \delta < 1$ be the rate of depreciation of capital stock.

What is the growth rate of aggregate output at steady state?

A. n

B. s + n

C. n + δ

D. 0

EXPLANATION

Correct answer: A

In the Solow steady state without technological progress, capital per worker is constant. This does not mean that the economy's total capital or total output is constant when the number of workers is growing.

Define $k = K/N$ and $y = Y/N$. The Cobb–Douglas production function becomes

$y = k^{\alpha}$.

At the standard positive steady state, $k = k^*$ and therefore $y = (k^*)^{\alpha}$ are constant. Aggregate output is

$Y = y^* N$.

Since the constant y^* multiplies a workforce growing at rate n, aggregate output also grows at rate n.

- **B:** The saving rate is a fraction of income invested, not an additional growth rate to add to population growth. It affects the steady-state level of capital and output per worker.
- **C:** Depreciation raises replacement investment requirements. It does not add positively to the long-run growth rate of aggregate output.
- **D:** Zero is the steady-state growth rate of output **per worker** in this model. Aggregate output continues to rise because there are more workers.

The zero-capital boundary has zero output, for which proportional output growth is undefined.

KEYWORDS: solow model | balanced growth | aggregate per worker | population growth

51

MACROECONOMICS

Closed Economy IS – LM Model and Mundell Fleming Model: Monetary and Fiscal Policy Efficacy

Difficulty: Medium | 2026 · Q51 · Adapted practice | MCQ · 2 marks

In a closed IS-LM economy, government purchases are zero and real money balances M^S/P are fixed. Consumption, taxes, investment and money demand satisfy

$$C = C_0 + cY^d, \qquad T = T_0 + tY, \qquad I = I_0 - br, \; \frac{M^S}{P} = l_1 Y - l_2 r.$$

Here Y^d is disposable income, r is the real interest rate, $0 < c, t < 1$, and $b, l_1, l_2 > 0$. What is the investment multiplier $\partial Y / \partial I_0$?

A. $\frac{1}{1-c(1-t)}$

B. $\frac{1}{[1-c(1-t)]+(l_1/l_2)b}$

C. $\frac{1}{(1-c)+(l_1/l_2)b}$

D. $1 - c(1-t) + (l_1/l_2)b$

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: B

First express consumption in terms of total income. The tax function implies

$$Y^d = (1-t)Y - T_0,$$

so consumption is $C = C_0 - cT_0 + c(1-t)Y$. Substituting consumption and investment into $Y = C + I$ gives

$$[1 - c(1-t)]Y = C_0 - cT_0 + I_0 - br.$$

The LM equation determines the interest rate:

$$r = \frac{l_1}{l_2} Y - \frac{M^S}{Pl_2}.$$

Combining the two equations and collecting the income terms yields

$$\left[1 - c(1-t) + b\frac{l_1}{l_2}\right] Y = C_0 - cT_0 + I_0 + \frac{bM^S}{Pl_2}.$$

Holding prices, money and tax parameters fixed, the investment multiplier is therefore

$$\frac{\partial Y}{\partial I_0} = \frac{1}{1-c(1-t)+b(l_1/l_2)}.$$

Taxes reduce the induced-consumption response, while the rise in interest rates along LM crowds out some investment. Both reduce the multiplier relative to the untaxed Keynesian-cross benchmark.

- **A:** This includes proportional taxation but omits the interest-rate feedback from the money market.
- **C:** This includes that feedback but drops the proportional tax rate from consumption's response to income.
- **D:** This is the denominator of the multiplier, not its reciprocal. An extra unit of autonomous investment raises income by the inverse of this combined leakage term.

KEYWORDS: is lm investment multiplier | proportional tax | interest crowding out

52

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Econometrics

Difficulty: Easy | 2026 · Q52 | MCQ · 2 marks

The estimated energy demand is given in the Equation below, where, $\hat{y}_t$ is the estimated value of the log of energy demand at time t. The numbers in the parentheses are the values of the t-statistic of the corresponding coefficients.

$$\hat{y}_t = \underset{(10.73)}{1.24} + \underset{(7.28)}{0.56}\ln(\text{GDP}_t) - \underset{(5.28)}{0.03}\ln(\text{energyprice}_t)$$

Which one of the following statements is CORRECT?

A. Demand for energy is price inelastic

B. Demand for energy is price elastic

C. Demand for energy is unit elastic

D. Sufficient information has not been provided to calculate price elasticity

EXPLANATION

Correct answer: A

The dependent variable is the log of energy demand, and energy price also enters in logs. The coefficient on log price is therefore the estimated price elasticity of energy demand, holding GDP fixed:

$\frac{d\ln Q}{d\ln P} = -0.03.$

A small 1% rise in energy price is associated with an approximately 0.03% fall in demand in the fitted relationship. Elasticity classification uses the absolute magnitude, $|-0.03| = 0.03$, which is less than one. The fitted demand relationship is therefore price inelastic.

The negative sign gives the direction of the price response; it does not mean that the magnitude should be compared with zero to classify elastic versus inelastic demand. The magnitude tells us that quantity responds proportionately less than price.

- **B:** Price-elastic demand would require an absolute price elasticity greater than one. The estimate of 0.03 in magnitude is much smaller.
- **C:** Unit elasticity requires an absolute price elasticity of exactly one, not a small negative coefficient.
- **D:** The log–log form supplies the elasticity directly from the coefficient. No separate price or quantity level is needed.

The parenthesized 5.28 is a reported test-statistic magnitude, not the price elasticity. Likewise, the GDP coefficient 0.56 describes the response to GDP and does not replace the price coefficient. Statistical significance and the size of an elasticity answer different questions.

KEYWORDS: log log demand | price inelasticity | coefficient interpretation

53

MICROECONOMICS

Theory of Production and Costs: Short-run and Long-run Analysis

Difficulty: Medium | 2026 · Q53 | MSQ · 2 marks

In terms of the general relations among total cost, average cost and marginal cost, which of the following statements is/are FALSE?

A. When the total cost is rising, the marginal cost is also rising

B. When the marginal cost is rising, average cost is also rising

C. When the total cost is rising, the marginal cost is positive

D. When the marginal cost remains unchanged, the average cost also remains unchanged

EXPLANATION

Correct answer: A, B, D

A total, its slope and its average answer different questions. Marginal cost is the slope of total cost, $MC = TC'(q)$, while average cost is $AC = TC(q)/q$. Total cost rising therefore means marginal cost is positive in the usual local cost-curve interpretation; it does not mean that the slope itself must rise.

The link between the marginal and average curves is

$$\frac{dAC}{dq} = \frac{q\,MC - TC}{q^2} = \frac{MC - AC}{q}.$$

For positive output, average cost rises when marginal cost lies above average cost and falls when marginal cost lies below it. Whether marginal cost is itself rising is not enough to decide.

- **A:** False. For example, $TC = 10 + 2q$ rises with output, but $MC = 2$ is constant. A rising total does not require a rising slope.
- **B:** False. With $TC = 100 + q^2$, marginal cost $2q$ rises, yet average cost $100/q + q$ falls for $0 < q < 10$. Over that interval, marginal cost remains below average cost.
- **C:** True, so it should not be selected. A positive slope of total cost means a positive cost of an additional unit; that slope is marginal cost.
- **D:** False. A constant marginal cost can coexist with declining average cost because fixed cost is spread over more units. In $TC = 10 + 2q$, average cost is $10/q + 2$, which falls as output expands.

KEYWORDS: marginal average relationship | total cost slope | fixed cost spreading | cost curve counterexample

54

DEVELOPMENT ECONOMICS

Indicators of Economic Development: HDI, SDGs, MDGs

Difficulty: Medium | 2026 · Q54 | MSQ · 2 marks

Which of the following statements concerning Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) is/are CORRECT?

A. MDGs had 8 enumerated goals, and SDGs have 17

B. The MDGs are considered less comprehensive compared to the SDGs in terms of the range of issues covered

C. Both MDGs and SDGs are meant exclusively for developing countries

D. SDGs were introduced after the world achieved the targets specified by the MDGs

EXPLANATION

Correct answer: A, B

The MDGs provided a framework for development efforts with a 2015 horizon. The SDGs were adopted in 2015 as part of the 2030 Agenda, extending the agenda while also continuing unfinished work.

- **A:** Correct. There were eight Millennium Development Goals, followed by seventeen Sustainable Development Goals.
- **B:** Correct. The SDGs cover a wider range of interconnected economic, social and environmental concerns. Their scope includes areas such as sustainable production and consumption, climate action, institutions and inequality alongside poverty, health and education.
- **C:** Incorrect. The SDGs apply to all countries, including developed countries. The MDG framework included a global partnership with responsibilities for richer countries, so describing both frameworks as exclusively for developing countries is too restrictive.
- **D:** Incorrect. Adoption of the SDGs did not mean that every MDG target had been achieved everywhere. The 2015 MDG assessment recorded major progress alongside continuing gaps and unequal outcomes.

KEYWORDS: millennium development goals | sustainable development goals | universal agenda | unfinished targets

55

INTERNATIONAL ECONOMICS

Foreign Exchange Market and Arbitrage

Difficulty: Easy | 2026 · Q55 | MSQ · 2 marks

Nominal exchange rate is defined as the amount of domestic currency that can fetch one unit of foreign currency. Suppose that there is a fall in nominal exchange rate. Which of the following statements is/are TRUE?

A. Appreciation of domestic currency with respect to foreign currency

B. Depreciation of domestic currency with respect to foreign currency

C. Fall in the price of foreign currency in terms of domestic currency

D. Rise in the price of foreign currency in terms of domestic currency

EXPLANATION

Correct answer: A, C

The question defines the exchange rate as domestic currency per unit of foreign currency. Write this as e: it is the domestic-currency price of one foreign unit.

A fall in e means that the same amount of foreign currency now costs fewer domestic units. The domestic currency has become stronger, which is appreciation. At the same time, the foreign currency's price in domestic units has fallen. These are two descriptions of the same movement.

For illustration, if the quote falls from 80 to 75 domestic units per foreign unit, a buyer needs five fewer domestic units to obtain the foreign currency. Conversely, one domestic unit now buys $1/75$ rather than $1/80$ of the foreign currency.

- **A:** Correct. The domestic currency appreciates because its purchasing power over the foreign currency rises.
- **B:** Incorrect. Domestic depreciation would require more domestic units per foreign unit, so this quotation would rise.
- **C:** Correct. The nominal exchange rate is precisely the foreign currency's price in domestic units, and that price has fallen.
- **D:** Incorrect. A rise in that price directly contradicts the stipulated fall in the quoted rate.

The result follows from the explicit quotation convention. With the reciprocal quote—foreign currency per domestic unit—the numerical direction associated with appreciation would be reversed.

KEYWORDS: exchange rate quotation | currency appreciation | foreign currency price

56

INDIAN ECONOMY

Poverty, Inequality & Unemployment

Difficulty: Medium | 2026 · Q56 | MSQ · 2 marks

Which of the following statements is/are INCORRECT?

A. According to the Periodic Labour Force Survey 2023-24, the agricultural sector remains dominant in providing employment

B. The share of female workforce in agriculture has significantly increased in the financial year 2023-24 relative to the financial year 2017-18

C. The male participation in the agriculture employment decreased in the financial year 2023-24 relative to the financial year 2017-18

D. The share of industry and service sector saw an increment in the employment share in the financial year 2023-24 relative to the financial year 2017-18

EXPLANATION

Correct answer: D

These statements refer to the sectoral distribution of workers in the PLFS comparison summarized by the Economic Survey 2024–25. A sector's employment share is the fraction of workers in that sector, not its share of national output or the growth rate of the number employed.

- **A:** Correct, so it is not selected. Agriculture remained the largest employment sector in the 2023–24 figures, accounting for about 46.1% of workers. “Dominant” here means the largest sector, not necessarily more than half of all workers.
- **B:** Correct. The proportion of female workers engaged in agriculture rose from 57.0% in 2017–18 to 64.4% in 2023–24, an increase of 7.4 percentage points.
- **C:** Correct. The corresponding proportion of male workers in agriculture fell from 40.2% to 36.3%. This is a decline in the agricultural share of male employment, not a claim that the absolute number of male agricultural workers necessarily fell.
- **D:** Incorrect. Services fell from 31.1% to 29.7%. In the Survey’s three broad groups, industry accounts for the remainder after agriculture and services. Its share fell from about $100 - 44.1 - 31.1 = 24.8\%$ to $100 - 46.1 - 29.7 = 24.2\%$. Manufacturing is one part of industry.

The 64.4% uses all female workers as its denominator. The annual PLFS rounds cover July to June.

KEYWORDS: plfs | sectoral employment | female agricultural employment | male agricultural employment | employment shares

57

INDIAN ECONOMY

Composition of India's Trade

Difficulty: Medium | 2026 · Q57 | MSQ · 2 marks

Which of the following statements is/are CORRECT?

A. India's total exports (merchandise and services) have shown positive growth in the first nine months of the financial year 2024-25

B. India's merchandise imports grew by 5.2% during April to December 2024, and this increase was largely due to a rise in non-oil, non-gold imports

C. India's service sector exports declined in the first nine months of the financial year 2024-25

D. The recent rise in India's current account deficit can be attributed to an increase in the service trade deficit

EXPLANATION

Correct answer: A, B

The comparison covers April–December 2024, the first nine months of financial year 2024–25, against the same months of the previous year. Merchandise trade concerns goods; services trade is a separate component of exports and imports.

- **A:** Correct. The January 2025 trade release estimated total goods-and-services exports at USD 602.64 billion, compared with USD 568.36 billion a year earlier, an increase of about 6.03%.
- **B:** Correct. Merchandise imports rose by about 5.2%. The Economic Survey 2024–25 described non-oil, non-gold imports as the main driver of this growth. This does not mean that oil and gold imports were absent or unchanged.
- **C:** Incorrect. Services exports increased. The same release estimated them at USD 280.94 billion, up from USD 251.71 billion in the corresponding earlier period.
- **D:** Incorrect. India had a services trade surplus, not the expanding services deficit described here. That surplus helped offset the merchandise trade deficit.

The goods balance is only one part of the current account. Services and income flows can offset a widening goods deficit. These figures use the estimates in the historical release.

KEYWORDS: merchandise imports | services exports | services trade surplus | external trade 2024 25

58

MICROECONOMICS

Asymmetric Information: Adverse Selection and Moral Hazard

Difficulty: Medium | 2026 · Q58 · Adapted practice | NAT · 2 marks

Used cars form a continuum of mass 5000, with quality x uniform on $[0, 5000]$. Only owners know quality; an owner offers a car when $p \geq x$. If N cars are offered, buyers pay $1000 + N/2$ and purchase them all. How many cars remain unsold in equilibrium? Enter an integer.

Accepted answer: **3000**

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: 3000

At most 5,000 cars are offered, so the given buyer price $p = 1000 + N/2$ ranges from 1,000 to 3,500. The selling threshold $x = p$ therefore lies strictly inside the quality interval. Uniform quality means that a fraction $p/5000$ of owners offers a car. The mass offered is $N = 5000(p/5000) = p$.

Since buyers take every car offered, substitute $p = N$ into their price rule:

$$N = 1000 + \frac{N}{2} \quad \Rightarrow \quad N = 2000.$$

The mass left unsold is $5000 - 2000 = 3000$. A lower price excludes more high-quality cars, which lowers the average quality in the pool buyers face.

KEYWORDS: adverse selection | reservation price | uniform quality | market fixed point

59

MICROECONOMICS

Theory of Production and Costs: Short-run and Long-run Analysis

Difficulty: Easy | 2026 · Q59 | NAT · 2 marks

Suppose that Ritwick owns two plants, Plant X and Plant Y. Both plants produce the same industrial good. The marginal cost to produce at Plant X is $4 + 2Q_X$; where, Q_X is the quantity produced in Plant X, and the marginal cost to produce at Plant Y is $40 + Q_Y$; where, Q_Y is the total quantity produced in Plant Y. If Ritwick plans to produce 15 units of this good, the amount of the good produced in Plant Y is _____ (in integer)

Accepted answer: **0**

EXPLANATION

Correct answer: 0

A firm using two plants minimises total cost by allocating output to the cheaper available marginal units. Equal marginal costs are required only when both plants operate at positive output. If one plant remains more expensive even at its first unit, a corner solution is possible.

Suppose all 15 units are produced at Plant X. The marginal cost of its final unit is

$$MC_X(15) = 4 + 2(15) = 34.$$

Plant Y starts with a marginal cost of $MC_Y(0) = 40$. Thus even the most expensive of the 15 units made at X is cheaper than the first unit at Y. There is no cost saving from shifting any output to Y.

This conclusion can be checked using the total-output constraint. Set $Q_X = 15 - Q_Y$. The change in total cost from transferring one unit to Y is

$$MC_Y - MC_X = 40 + Q_Y - [4 + 2(15 - Q_Y)] = 6 + 3Q_Y > 0$$

for every feasible $Q_Y \geq 0$. Total cost therefore increases as Y receives any output, and its minimum occurs at $Q_Y = 0$.

Mechanically equalising the two marginal costs would give $Q_Y = -2$, which is not feasible. That negative candidate is a signal to check the boundary, not a permissible production quantity. The final allocation is 15 units at X and none at Y.

KEYWORDS: multiplant cost minimization | corner solution | marginal cost comparison

60

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Mathematical Economics

Difficulty: Easy | 2026 · Q60 | NAT · 2 marks

Consider the function $G(x, y, z) = 0$. This function allows us to implicitly define each of three variables as a function of the other two variables. Assume that all partial derivatives of the function $G(x, y, z)$ exist everywhere. Then, the value of $\left(\frac{\partial z}{\partial x} \times \frac{\partial x}{\partial y} \times \frac{\partial y}{\partial z}\right)$ is _____ (in integer)

Accepted answer: **-1**

EXPLANATION

Correct answer: -1

All three derivatives refer to the same implicit surface, $G(x, y, z) = 0$, but each holds a different third variable fixed. The subscript on each derivative identifies the variable held fixed.

Suppose G is continuously differentiable near the point and G_x, G_y, G_z are nonzero there. The implicit-function theorem gives differentiable local functions. Holding y fixed gives

$$G_x + G_z \left(\frac{\partial z}{\partial x}\right)_y = 0,$$

so $(\partial z/\partial x)_y = -G_x/G_z$. Repeating the argument while holding z fixed and then x fixed gives

$$\left(\frac{\partial x}{\partial y}\right)_z = -\frac{G_y}{G_x}, \qquad \left(\frac{\partial y}{\partial z}\right)_x = -\frac{G_z}{G_y}.$$

Multiplying the three expressions cancels the nonzero partial-derivative factors:

$$\left(-\frac{G_x}{G_z}\right)\left(-\frac{G_y}{G_x}\right)\left(-\frac{G_z}{G_y}\right) = -1.$$

The cancellation requires all three ratios to be defined. The existence of partial derivatives of G alone does not ensure that. For example, $G = x^3 + y + z$ defines each variable in terms of the other two, but at the origin the cube-root expression for x has no finite derivative with respect to y at fixed z.

KEYWORDS: cyclic partial derivative | implicit function identity | fixed variable convention

61

PUBLIC ECONOMICS

Incidence and Effects of Taxation

Difficulty: Medium | 2026 · Q61 · Adapted practice | NAT · 2 marks

A perfectly competitive torch market has demand $X^d = \max(400 - p, 0)$ and supply $X^s = \max(0, (p - 80)/7)$, where $p \geq 0$ is the price. A specific tax of 40 is imposed on purchases of each torch. What is the decrease in consumer surplus? Round to one decimal place.

Accepted answer: **187.5**

EXPLANATION

Practice-key note: Reviewed adaptation of the original 2026 question.

Correct answer: 187.5

Consumer surplus is the amount buyers are willing to pay above what they actually pay. For a linear demand curve it is the triangle below demand and above the consumer price, over the quantity traded.

On the positive-quantity branches, write inverse demand and supply as

$$P_c = 400 - Q, \qquad P_s = 80 + 7Q.$$

Before taxation buyers and sellers face the same price, so

$$400 - Q_0 = 80 + 7Q_0 \quad \Rightarrow \quad Q_0 = 40, \quad P_0 = 360.$$

A purchase tax of 40 creates the wedge $P_c - P_s = 40$. Therefore

$$400 - Q_1 - (80 + 7Q_1) = 40 \quad \Rightarrow \quad Q_1 = 35.$$

Buyers now pay $P_c = 400 - 35 = 365$, while sellers receive 325. Their difference is the tax. The consumer price rises by only 5 because part of the burden falls on sellers; the legal purchase-tax description does not make buyers bear the entire economic burden.

The two consumer-surplus triangles are

$$CS_0 = \tfrac{1}{2}(400 - 360)40 = 800, \qquad CS_1 = \tfrac{1}{2}(400 - 365)35 = 612.5.$$

Thus consumer surplus decreases by $800 - 612.5 = 187.5$ monetary units, already expressed to one decimal place. Both quantities are positive, so the demand and supply branches used in the calculation are valid.

KEYWORDS: tax incidence | consumer surplus | tax wedge | equilibrium comparison

62

MACROECONOMICS

Theories of Consumption: Absolute Income Hypothesis, Relative Income Hypothesis, Life Cycle Hypothesis, Permanent Income Hypothesis and Robert Hall's Random Walk Model

Difficulty: Easy | 2026 · Q62 | NAT · 2 marks

An individual lives for two periods, Period 1 and Period 2. In Period 1, her income is 210, and in Period 2, her income is 0. She saves in Period 1 and earns a real interest rate of 10% on these savings in Period 2. She does not save anything in Period 2. She consumes equal amounts in both the time periods. Her consumption in the current period is _____ (in integer)

Accepted answer: **110**

EXPLANATION

Correct answer: 110

Equal consumption does not mean dividing the first-period income into two equal amounts before interest. Saving transfers resources to period 2 and earns a return, so one unit set aside today finances 1.10 units of future consumption.

Let consumption in each period be c. After consuming in period 1, the individual saves $210 - c$. With zero income and no saving left at the end of period 2, she consumes the full principal plus interest:

$$c = 1.10(210 - c).$$

Expanding and collecting terms gives

$$c = 231 - 1.10c, \qquad 2.10c = 231,$$

hence

$$c = \frac{231}{2.10} = 110.$$

The result satisfies both period budgets. Current saving is $210 - 110 = 100$, which becomes $100 \times 1.10 = 110$ in period 2. Consumption is therefore exactly equal across the two periods, and no resources remain unspent.

The present-value version gives the same check: $110 + 110/1.10 = 110 + 100 = 210$. Simply choosing 105 would leave future consumption at 115.5 once interest is included, violating the equal-consumption condition.

KEYWORDS: two period budget | consumption smoothing | interest on saving

63

MACROECONOMICS

Demand and Supply of Money

Difficulty: Easy | 2026 · Q63 | NAT · 2 marks

The money demand function is $\frac{M}{P} = 800 + 0.3Y - 2000i$; where, M is nominal money supply, P is the aggregate price level, Y is the real GDP, and i is the nominal interest rate. Suppose that $Y = 2000$, and $i = 0.20$.

The velocity of money is _____ (in integer)

Accepted answer: **2**

EXPLANATION

Correct answer: 2

Income velocity measures how many times a unit of money supports expenditure on final output over the measurement period. It is nominal GDP divided by the nominal money stock:

$$V = \frac{PY}{M} = \frac{Y}{M/P}.$$

The second expression is useful because the question directly provides real money balances. Substituting real income and the interest rate into the money-demand function gives

$$\frac{M}{P} = 800 + 0.3(2000) - 2000(0.20).$$

The income-related component is 600 and the interest-rate deduction is 400, so

$$\frac{M}{P} = 800 + 600 - 400 = 1000.$$

At money-market equilibrium these demanded real balances equal the real money stock. Velocity is consequently

$$V = \frac{2000}{1000} = 2.$$

A separate value for the price level is unnecessary: it cancels when nominal GDP and nominal money are expressed in real terms. The interest rate is already 0.20 in decimal form; inserting 20 would apply a hundredfold larger interest-rate deduction and produce an invalid balance.

The result means that, over the GDP measurement period, money turns over twice in supporting final-output expenditure. It is not a 2% interest rate or a measure of the growth of money. The exact integer entry is **2**.

KEYWORDS: income velocity | real money balances | money demand substitution

64

STATISTICS, ECONOMETRICS AND MATHEMATICAL ECONOMICS

Econometrics

Difficulty: Easy | 2026 · Q64 | NAT · 2 marks

Consider the estimated regression Equation below, where, $\hat{y}_t$ is the estimated value of the log (to the base e) of real GDP at time t. The numbers in the parentheses are the value of the t-statistic of the corresponding coefficients.

$$\hat{y}_t = \underset{(10.25)}{6.20} + \underset{(4.62)}{0.05}\, t$$

The growth rate of real GDP (in %) is _____ (rounded off to the nearest integer)

Accepted answer: **5**

EXPLANATION

Correct answer: 5

The dependent variable is the natural log of real GDP, so the coefficient on time describes growth in log output. Let Q_t denote the fitted GDP level. The equation implies

$$\ln Q_t = 6.20 + 0.05t \quad \Rightarrow \quad Q_t = e^{6.20}e^{0.05t}.$$

The coefficient 0.05 is the continuously compounded growth rate per unit of time, or 5% in percentage terms. The exact proportional increase between two consecutive time values is

$$\frac{Q_{t+1}}{Q_t} - 1 = e^{0.05} - 1 \approx 0.051271.$$

Thus the exact discrete growth rate is approximately 5.127%, while the usual small-growth approximation is $100(0.05) = 5\%$. Both round to **5** at the requested nearest-integer precision.

The intercept determines the fitted level at $t = 0$, not the growth rate. The parenthesized value 4.62 measures the statistical significance of the time coefficient; it is not a percentage growth estimate.

No calendar frequency is stated. The interpretation is therefore growth per unit of the time variable: it would be annual only if each unit of t represented a year. This avoids assigning a time scale not supplied by the question.

KEYWORDS: log linear trend | growth rate | continuous discrete growth

65

MICROECONOMICS

Non-Cooperative games: Constant sum game, Mixed Strategy & Pure Strategy, Bayesian Nash Equilibrium, SPNE, Perfect Bayesian Equilibria

Difficulty: Hard | 2026 · Q65 | NAT · 2 marks

Table 1

P1/P2	X	Y	Z
A	2,1,2	0,0,2	1,2,3
B	0,3,1	2,2,4	3,1,0
C	1,1,1	3,2,1	2,2,2

Table 2

P1/P2	X	Y	Z
A	2,1,3	1,0,3	1,0,4
B	1,2,1	3,3,3	1,1,1
C	1,2,1	1,0,0	2,1,2

Table 1 and Table 2 represent a 3-player game. The payoff (a, b, c), in each cell, represents Player 1, Player 2, and Player 3's payoffs respectively. Player 1 (P1) decides to play either A, B, or C. Player 2 (P2) decides to play either X, Y, or Z. Player 3 (P3) decides between Table 1 and Table 2.

The number of Nash equilibrium in pure strategy in this game is _____ (in integer)

Accepted answer: **2**

EXPLANATION

Correct answer: 2

A pure Nash equilibrium must survive a unilateral deviation by any of the three players. Player 1 can change the row, Player 2 can change the column, and Player 3 can switch tables while the selected row and column remain fixed. Payoff comparisons must use the relevant player's own coordinate.

Begin with mutual best responses of Players 1 and 2 within each table. This narrows the candidates without yet establishing a three-player equilibrium.

In Table 1, Player 1's preferred rows against columns X, Y, Z are respectively A, C, B. Player 2's preferred columns against rows A, B, C are respectively Z, X, and both Y and Z. The only mutual pair is (C, Y). At that cell, Player 3 receives 1 in Table 1 and 0 in Table 2, so choosing Table 1 is also a best response. Thus $(C, Y, \text{Table } 1)$ is an equilibrium.

In Table 2, Player 1's best rows are A, B, C against X, Y, Z. Player 2's best columns are X, Y, X against A, B, C. There are two mutual pairs:

- At (A, X), Player 3 gets 3 in Table 2 and 2 in Table 1, so $(A, X, \text{Table } 2)$ is an equilibrium.
- At (B, Y), Player 3 gets 3 in Table 2 but 4 in Table 1. Switching tables improves the third player's payoff, so this candidate fails.

Exactly **two** profiles satisfy all three players' best-response conditions. Notice that Player 2's tie at row C in Table 1 must be retained: there can be more than one best response. Also, the third player's incentives can rule out an equilibrium of a two-player slice.

KEYWORDS: three player game | pure strategy nash equilibrium | unilateral deviation | best response ties

Coverage at a glance.

65 questions · 180 practice minutes · Wrong MCQs lose one-third of their marks. MSQs and NATs have no negative marking; MSQs need all correct options and no others.

Subject	Questions
General Aptitude	10
Reasoning and Comprehension	16
Statistics, Econometrics and Mathematical Economics	9
Microeconomics	9
Macroeconomics	9
Indian Economy	4
Public Economics	3
Development Economics	3
International Economics	2

Answer key

1 · A	2 · B	3 · A	4 · B	5 · C	6 · D	7 · A	8 · D	9 · C	10 · C
11 · A	12 · A	13 · A	14 · A, C	15 · A	16 · B	17 · A, D	18 · B	19 · B	20 · A, B, C
21 · A	22 · B, D	23 · B, C	24 · B, C	25 · 25	26 · 16	27 · A	28 · C	29 · B	30 · A
31 · C	32 · C	33 · C	34 · A	35 · C	36 · B	37 · C	38 · B	39 · D	40 · A, C
41 · 0.19 to 0.21 (inclusive)	42 · 100	43 · 100	44 · 2	45 · B	46 · B	47 · B	48 · B	49 · B	50 · A
51 · B	52 · A	53 · A, B, D	54 · A, B	55 · A, C	56 · D	57 · A, B	58 · 3000	59 · 0	60 · -1
61 · 187.5	62 · 110	63 · 2	64 · 5	65 · 2					

Questions 15, 17, 23, 46, 51, 58, 61 are reviewed adaptations of the original paper. They are labelled in the solutions.

Topic breakdown.

Question counts in this practice resource, not predicted exam weightages.

Verbal Aptitude	1
Quantitative Aptitude	3
Logical Reasoning	4
Expression	3
Mathematical Economics	2
Components of Money Supply	1
Non-Cooperative games: Constant sum game, Mixed Strategy & Pure Strategy, Bayesian Nash Equilibrium, SPNE, Perfect Bayesian Equilibria	3
Demand and Supply of Money	2
Investment Function Specifications - Dale Jorgenson's Neoclassical Theory of Capital Accumulation and Tobin's	1
Theories of Economic Development: Adam Smith, David Ricardo, Karl Marx, J. Schumpeter, W. Rostow, Balanced & Unbalanced Growth, Big Push Approach	1
Theory of Production and Costs: Short-run and Long-run Analysis	3
Money Multiplier	1
The Impossible Trinity	1
Models of Economic Growth: Harrod-Domar, Solow, Ramsey	1
Indicators of Economic Development: HDI, SDGs, MDGs	1
Poverty, Inequality & Unemployment	1
Asymmetric Information: Adverse Selection and Moral Hazard	1
Theories of Consumption: Absolute Income Hypothesis, Relative Income Hypothesis, Life Cycle Hypothesis, Permanent Income Hypothesis and Robert Hall's Random Walk Model	1
Analytical Aptitude	5
Spatial Aptitude	1
Analytical Reasoning	8
Reading Comprehension	1
Theory of Consumer Behaviour: Cardinal Approach and Ordinal Approach; Consumer Preferences; Nature of the utility function; Marshallian and Hicksian demand functions; Duality Theorem	1
Infrastructure Development: Physical and Social; Public-Private Partnerships	1
Market Failure and Remedial Measures: Asymmetric Information, Public Goods, Externality	2
Theories of Inflation and Expectations Augmented Phillips Curve	1
Basic Statistics	4
Econometrics	3
Theory of Firm: Market Structures — Competitive and Non-competitive equilibria and their efficiency properties	1
Rural & Urban Development – Issues, Challenges & Policy Responses	1
Trade Policy Issues	1
Closed Economy IS – LM Model and Mundell Fleming Model: Monetary and Fiscal Policy Efficacy	1
Foreign Exchange Market and Arbitrage	1
Composition of India's Trade	1
Incidence and Effects of Taxation	1

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