

AFCAT 1 2025 Practice Paper 05

Q1. The Reserve Bank of India's 'Digital Rupee (e-Rupee)' pilot for the wholesale segment was first launched in November 2022 for the settlement of secondary-market transactions in:

- (A) Government securities (B) Retail card payments
(C) Cross-border trade only (D) Foreign exchange spot only

Q2. If $x + 1/x = 3$, evaluate $x^3 + 1/x^3$.

$$(x+1/x)^3 \rightarrow x^3+1/x^3 + 3(x+1/x) \rightarrow 27 = ? + 9 \rightarrow = 18$$

Algebraic identity manipulation

- (A) 18 (B) 27
(C) 9 (D) 36

Q3. In the sentence 'The intelligence dossier presented a cogent case for pre-emptive strike against the launch pads', the underlined word most nearly means:

- (A) Convincing (B) Confused
(C) Trivial (D) Vacuous

Q4. If 'ARMY' $\rightarrow$ 'BSNZ' (each letter +1) and 'NAVY' $\rightarrow$ 'PCXA' (each letter +2), how is 'AIR' coded following the +3 rule?

$$A \rightarrow D \rightarrow I \rightarrow L \rightarrow R \rightarrow U$$

Caesar +3 shift

- (A) DLU (B) CJU
(C) DKV (D) DLT

Q5. The 'India-EU Trade & Technology Council (TTC)', operational from 2023, works through three formal working groups. Which of the following is NOT among them?

- (A) Strategic technologies, digital governance and connectivity (B) Green and clean energy technologies
(C) Trade, investment and resilient value chains (D) Defence exports and joint procurement only

Q6. If $2^x = 3^y = 6^{-z}$, evaluate $1/x + 1/y + 1/z$.

$$1 = 3^{\frac{1}{x}} = 6^{\frac{1}{y}} = 2^{\frac{1}{z}} \rightarrow 6 = \log 2 + \log 6 \rightarrow -1/z = 1/x + 1/y \rightarrow \Sigma = 0$$

Simultaneous exponential

- (A) 0 (B) 1
(C) -1 (D) 2

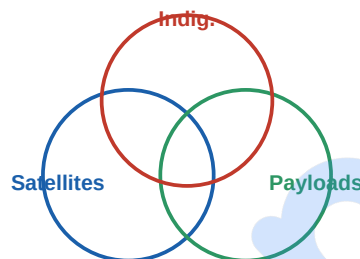
Q7. Identify the segment containing an error: 'The reason for the delay / was because / the runway lights had failed / just before departure.'

- (A) The reason for the delay (B) was because
(C) the runway lights had failed (D) just before departure

Q8. India's 'Production Linked Incentive (PLI)' scheme for semiconductors and display fabrication is administered by:

- (A) MeitY (Ministry of Electronics & IT) (B) Ministry of Commerce
(C) DPIIT (D) DST

Q9. Statements: (1) All satellites are payloads. (2) Some payloads are indigenous. (3) No indigenous payload is imported. Conclusions: I. Some satellites are indigenous. II. Some payloads are not imported. III. No satellite is imported. Which follow?



Set relations for syllogism

- (A) Only II follows (B) Only I follows
(C) Only II and III follow (D) All follow

Q10. Find the number of ways in which the letters of the word 'MISSION' can be arranged.



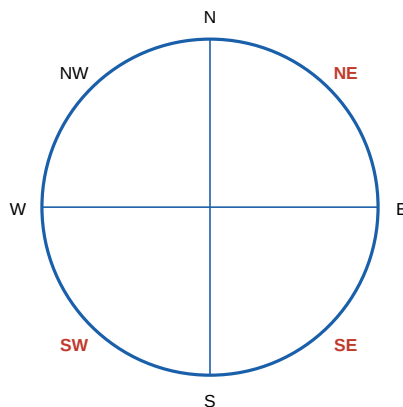
Permutations of MISSION

- (A) 1,260 (B) 840
(C) 5,040 (D) 2,520

Q11. Antonym of the underlined word: 'The dossier's diaphanous arguments hardly withstood cross-examination.'

- (A) Translucent (B) Opaque
(C) Sheer (D) Gauzy

Q12. A drone flies 10 m NE, then 10 m SE, then 10 m SW. Determine its net displacement from the start.



Vector sum NE + SE + SW

- (A) 10 m NW (B) 10 m NE
(C) 10 m E (D) 0 m same point

Q13. The office of the Comptroller and Auditor General of India is created under which Article of the Constitution?

- (A) Article 148 (B) Article 165
(C) Article 76 (D) Article 143

Q14. The sum of A's and B's ages is 45 years. Five years ago, A was twice as old as B. Determine B's present age.



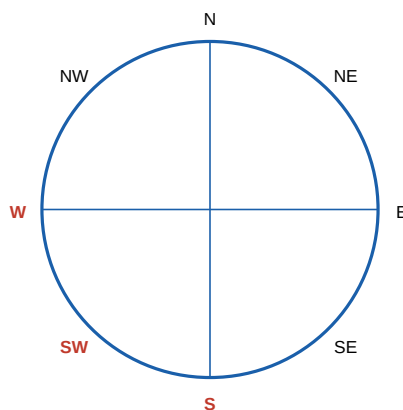
Simultaneous age equations

- (A) 15 (B) 18.33
(C) 20 (D) 16.67

Q15. One-word substitute: 'A general pardon of political offenders.'

- (A) Amnesty (B) Absolution
(C) Reprieve (D) Clemency

Q16. [Visual Matrix] A 3x3 matrix of arrow figures where each arrow rotates 45 degrees clockwise from left to right in a row. In row-3 the bottom-left arrow points due South. What direction does the missing bottom-right arrow point to?



Arrow rotation +45° CW

- (A) West-pointing arrow (<-)
(B) SW-pointing arrow (/I)
(C) NW-pointing arrow (\-)
(D) N-pointing arrow (|^)

Q17. The 'Bharatiya Antariksha Station' (BAS) - India's planned indigenous space station - is targeted for its first module launch by approximately:

- (A) 2028
(B) 2035
(C) 2030
(D) 2040

Q18. A alone can finish a task in 30 days and B in 45 days. They work on alternate days, starting with A. In how many total days is the work completed?



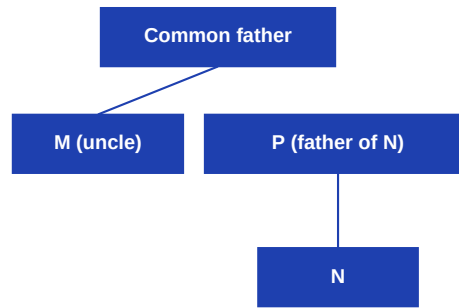
Alternate-day work — A starts

- (A) 36
(B) 35
(C) 37
(D) 34

Q19. Convert to indirect speech: The instructor said to the cadet, 'Have you completed the pre-flight check?'

- (A) The instructor asked the cadet if he had completed the pre-flight check.
(B) The instructor said the cadet to complete the check.
(C) The instructor asked whether the cadet completes the check.
(D) The instructor told the cadet had he complete the check.

Q20. If 'A @ B' means 'A is son of B'; 'A # B' means 'A is sister of B'; 'A \$ B' means 'A is wife of B' - which of the following shows that M is uncle (paternal) of N?



M is paternal uncle of N

- (A) M # P @ N
(B) M @ P \$ N - Q
(C) M # P @ N - Q
(D) P @ M # Q @ N

Q21. The 'India-Middle East-Europe Economic Corridor (IMEC)', announced at the 2023 G20 New Delhi Summit, has its eastern maritime segment running from India to which port hub?

- (A) Piraeus
(B) Jebel Ali / Fujairah (UAE)
(C) Haifa
(D) Constanta

Q22. The difference between the CI and SI on a sum for 2 years at 10% p.a. is Rs. 50. Determine the sum.



CI-SI two-year identity

- (A) Rs. 5,000
(B) Rs. 4,500
(C) Rs. 5,500
(D) Rs. 6,000

Q23. Fill in the blank: 'The negotiator's _____ patience wore down his adversary's resolve over seventy-two hours of continuous session.'

- (A) Ephemeral
(B) Adamantine
(C) Fickle
(D) Mercurial

Q24. In a certain code 'MANGO' -> 'OCPIQ'. Following the same rule, how is 'PEACH' coded?



Caesar +2 for MANGO/PEACH

- (A) RGCEJ
(B) RGCJE
(C) RGDEJ
(D) RGCFJ

Q25. The 'Non-Cooperation Movement' was formally launched by Mahatma Gandhi in which year?

- (A) 1919
(B) 1920
(C) 1921
(D) 1922

Q26. A trader marks his goods 50% above cost and offers successive discounts of 10% and 20%. Determine his net profit/loss percent.



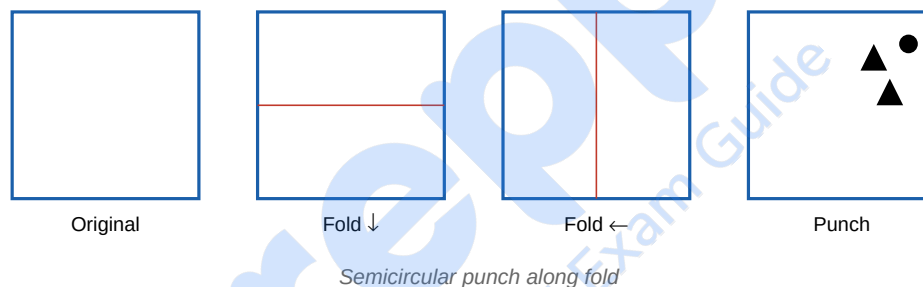
Markup 50% + two discounts

- (A) 8% profit (B) 10% profit
(C) 8% loss (D) 5% profit

Q27. Which of the following is correctly spelt?

- (A) Accommodation (B) Acommodation
(C) Accomodation (D) Acomodation

Q28. [Paper Folding] A rectangular sheet is folded once along its vertical centre. In the folded region, a semi-circular punch is made ALONG the fold. When the sheet is fully unfolded, the shape of the resulting hole is:



- (A) A full circle (B) A semicircle
(C) Two semicircles apart (D) An oval

Q29. The 'Quad' Leaders' Summit 2024, hosted by the United States, was held at:

- (A) Washington D.C. (B) Wilmington, Delaware
(C) Camp David (D) New York

Q30. The ratio of incomes of A and B is 3:4 and their expenditures 4:5. Each saves Rs. 5,000 per month. Determine A's monthly income.



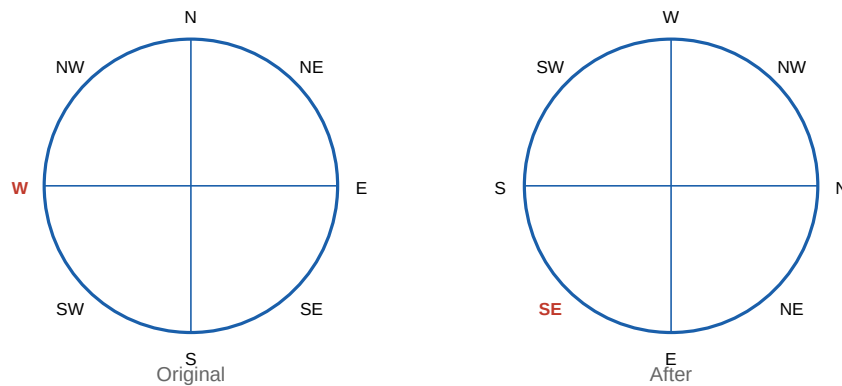
Two-variable income/expense

- (A) Rs. 12,000 (B) Rs. 15,000
(C) Rs. 18,000 (D) Rs. 20,000

Q31. Improve the underlined portion: 'He is senior than me by three years.'

- (A) senior to me (B) more senior than me
(C) senior than I (D) No improvement

Q32. If a compass is rotated so that West now points to North, then the ORIGINAL South-East now points to:



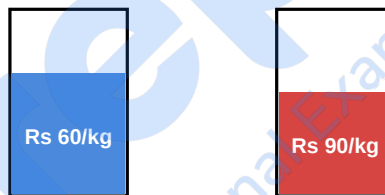
Compass rotation — apply to SE

- (A) North-East (B) South-West
(C) North-West (D) East

Q33. The Indian Army's 'Integrated Battle Group (IBG)' concept, being operationalised along active borders, replaces the traditional formation size of:

- (A) Battalion (B) Brigade
(C) Division-sized reserves for immediate response (D) Corps

Q34. In what ratio should tea worth Rs. 60/kg be mixed with tea worth Rs. 90/kg to obtain a blend worth Rs. 75/kg?



mix to get target ratio

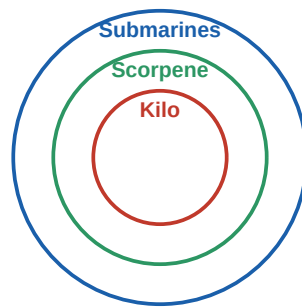
Alligation: tea blend to Rs 75/kg

- (A) 1:1 (B) 2:1
(C) 1:2 (D) 3:2

Q35. Synonym of the underlined word: 'The pusillanimous commander abandoned his troops at the first contact.'

- (A) Brave (B) Cowardly
(C) Composed (D) Reticent

Q36. Find the odd one out from among these Indian Navy submarine classes:



Class hierarchy

- (A) Kalvari (B) Karanj
(C) Vela (D) Sindhughosh

Q37. The 'Sahitya Akademi Award 2024' in English was conferred upon:

- (A) Vinod Kumar Shukla (B) Easterine Kire (for 'Spirit Nights')
(C) Amitav Ghosh (D) Jerry Pinto

Q38. Two trains of equal length 200 m each move in the same direction at 72 km/h and 54 km/h. The faster train overtakes the slower in how many seconds?



- (A) 70 (B) 80
(C) 60 (D) 72

Q39. Choose the sentence with correct idiom usage:

- (A) He drew the line at insubordination. (B) He drawn the line for insubordination.
(C) He put the line for insubordination. (D) He drew line at insubordination.

Q40. In a row of 45 cadets facing north, A is 20th from the left and B is 25th from the right. If they exchange positions, A becomes 32nd from the left. What was B's original position counted from the LEFT?



Row of 45 — swap positions

- (A) 21 (B) 20
(C) 22 (D) 23

Q41. The 'PM Vidyalaxmi' scheme, approved in November 2024, provides collateral-free, guarantor-free education loans for merit-based students of top-ranked HEIs, delivered primarily through:

- (A) MoUs with private banks alone (B) A unified digital portal and a Government-of-India credit-guarantee cover
(C) A state bank consortium only (D) Direct cash transfer to students

Q42. If the price of petrol rises by 25%, by what percent must consumption be reduced so that expenditure remains unchanged?



Reduction to hold expenditure

- (A) 20% (B) 25%
(C) 22.22% (D) 16.67%

Q43. Identify the error in: 'One of the recruits / who has been / selected for the mission / are missing this morning.'

- (A) One of the recruits (B) who has been
(C) selected for the mission (D) are missing this morning

Q44. [Venn Diagram] Which diagram best represents: 'Books, Novels, Fiction' - All Novels are Fiction; all Novels are Books; some Books are Fiction but not Novels?



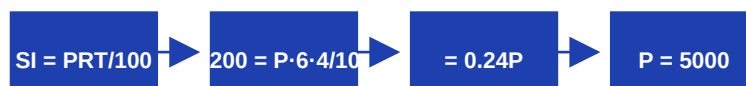
Novels $\subset$ Books $\cap$ Fiction

- (A) Three mutually disjoint (B) Novels as subset of Books & Fiction; Books-Fiction overlap wider than Novels
(C) Three concentric with Fiction innermost (D) One circle enclosing two disjoint

Q45. The 'NASM-SR' (Naval Anti-Ship Missile - Short Range), inducted from 2022 for maritime strike from ALH-Mk III helicopters, was developed by:

- (A) BrahMos Aerospace (B) DRDO's RCI and ASL
(C) BEL (D) HAL

Q46. The simple interest on a sum for 4 years at 6% p.a. is Rs. 1,200. Find the sum.



SI formula rearrange

- (A) Rs. 5,000 (B) Rs. 6,000
(C) Rs. 4,500 (D) Rs. 5,500

Q47. Directions (Q47-Q50): Read. 'Air power's decisive attribute is not merely speed or reach, but time compression: it converts strategic distance into tactical time. Yet its Achilles heel is basing - bases are the umbilical cords that must survive first-day counter-strikes. Without hardened, dispersed and networked basing, even a fifth-generation fleet is a museum piece by day two.' The decisive attribute of air power per the passage is:

- (A) Absolute range
(B) Time compression converting distance into tactical time
(C) Payload weight only
(D) Endurance

Q48. According to the Q47 passage, the Achilles heel of air power is:

- (A) Pilot fatigue
(B) Basing survivability
(C) Fuel logistics
(D) Weather

Q49. In the Q47 passage, 'museum piece by day two' is a metaphor for:

- (A) Historical value alone
(B) Combat irrelevance after loss of basing
(C) Ceremonial parade duty
(D) Retirement from service

Q50. The tone of the Q47 passage is best described as:



Pattern: $2 \cdot \text{prev} + 2$

Find missing term

- (A) Analytical and cautionary
(B) Purely celebratory
(C) Nostalgic
(D) Fervently alarmist

Q51. The 'Basic Structure Doctrine' was expounded by the Supreme Court in which landmark case?

- (A) Golaknath v. State of Punjab (1967)
(B) Kesavananda Bharati v. State of Kerala (1973)
(C) Minerva Mills v. Union of India (1980)
(D) Indira Gandhi v. Raj Narain (1975)

Q52. 16 men can complete a piece of work in 12 days working 8 h/day. How many days will 24 men take working 6 h/day for the same work?



Man-day-hour equivalence

- (A) 10.67
(B) 12
(C) 10
(D) 11.33

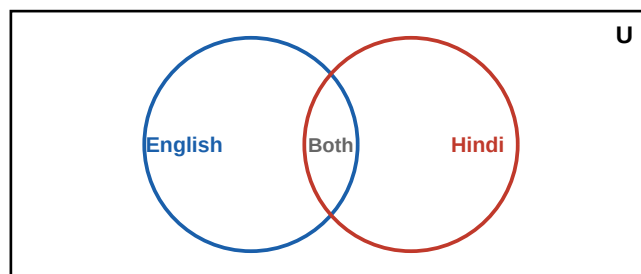
Q53. Find the missing term: 4, 10, 22, 46, 94, ?

- (A) 190
(B) 186
(C) 192
(D) 188

Q54. The Rowlatt Act was passed in the year:

- (A) 1917
(B) 1918
(C) 1919
(D) 1920

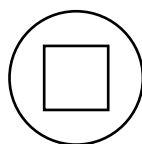
Q55. In an examination, 60% students passed in English and 55% passed in Hindi; 30% passed in BOTH. Determine the percent who passed in AT LEAST ONE subject.



$$60\% + 55\% - 30\% = 85\%$$

- (A) 85% (B) 80%
(C) 75% (D) 90%

Q56. Choose the correct analogy 'Aircraft : Hangar :: Ship : ?'.



A



B



C

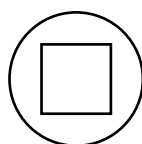


D

Aircraft:Hangar :: Ship:?

- (A) Port (B) Dry-dock
(C) Berth (D) Anchorage

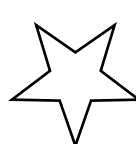
Q57. [Embedded Figure] Target: an isosceles triangle with an inscribed SQUARE touching its base. Identify the option in which this target appears embedded intact (upright, correct proportions).



A



B



C



D

Find isosceles ■ with inscribed square

- (A) Hexagon with rotated triangle (B) Pentagon containing isosceles triangle with inscribed square on base
(C) Concentric squares (D) Star polygon

Q58. The headquarters of the IAF's Eastern Air Command is located at:

- (A) Shillong (B) Kolkata
(C) Guwahati (D) Prayagraj

Q59. The greatest number that divides 285 and 1249, leaving remainders 9 and 7 respectively, is:



HCF after subtracting remainders

- (A) 138
(C) 276

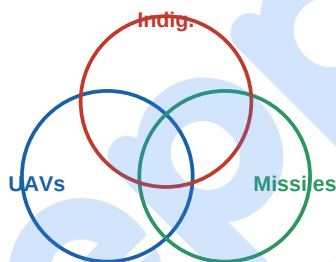
- (B) 146
(D) 184

Q60. The idiom 'to nip in the bud' means:

- (A) To praise excessively
(C) To take a shortcut

- (B) To stop something at an early stage of development
(D) To hesitate before acting

Q61. Choose the word least like the others:



Missile vs UAV

- (A) Rustom-2 (TAPAS-BH)
(C) Rudram-1

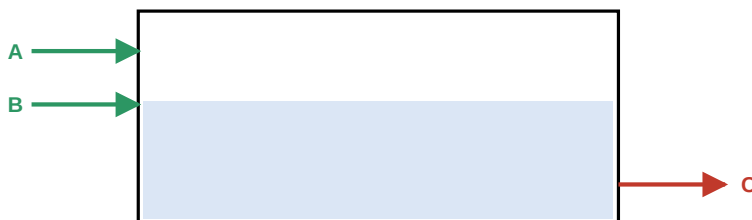
- (B) Ghatak
(D) Nishant

Q62. The '2+2 Ministerial Dialogue' between India and the United States is conducted by which four ministers?

- (A) EAM, Defence, Commerce, Home
(C) PM, EAM, Defence, NSA (both sides)

- (B) EAM and Defence Minister (India); Secretary of State and Secretary of Defense (USA)
(D) Defence Minister and NSA (both sides)

Q63. A tank has two inlet pipes A (12 h) and B (18 h) and one outlet pipe C (24 h). If all are opened together, in how many hours is the tank filled?



A 12h, B 18h, C 24h

Two inlets + one drain

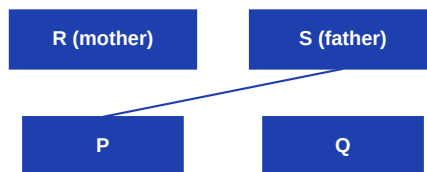
- (A) 9.6 h
(C) 10 h

- (B) 8 h
(D) 12 h

Q64. Choose the grammatically correct sentence:

- (A) Between you and I, the plan is flawed. (B) Between you and me, the plan is flawed.
(C) Between me and you, the plan are flawed. (D) Between I and you, the plan is flaw.

Q65. P is the brother of Q. R is the mother of P. S is the father of Q. How is S related to R?



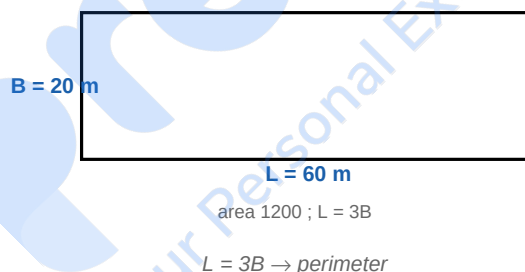
Parents of siblings — S = R's husband

- (A) Brother (B) Husband
(C) Uncle (D) Son

Q66. 'CITES' (Convention on International Trade in Endangered Species), to which India is a party, primarily regulates:

- (A) International trade in endangered species of wild fauna and flora
(B) Ozone-depleting substances
(C) Migratory birds only (D) Transboundary rivers

Q67. A rectangular field has area 1200 sq m and length is thrice its breadth. Find its perimeter (m).



- (A) 160 (B) 180
(C) 140 (D) 200

Q68. Fill in the blank: 'The Air Commodore's _____ recall of every previous sortie's tail-number gave him almost legendary status among maintenance crew.'

- (A) Encyclopaedic (B) Sparse
(C) Faltering (D) Selective

Q69. If 'ATTACK' -> 'BUUDDL' (each letter +1), how is 'DEFEND' coded?



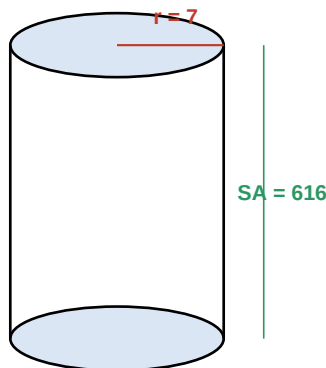
Caesar +1 for DEFEND

- (A) EFGFOE (B) EGGFOD
(C) EFHFOE (D) EFGGPE

Q70. The 'Southern Command' of the Indian Army is headquartered at:

- (A) Pune (B) Chennai
(C) Mumbai (D) Hyderabad

Q71. The surface area of a sphere is 616 sq cm. Find its volume (cu cm; $\pi = 22/7$).



Sphere: surface $\rightarrow$ radius $\rightarrow$ volume

- (A) 1,437.33 (B) 1,540
(C) 1,650 (D) 1,232

Q72. Antonym of the underlined word: 'The ephemeral nature of the ceasefire made every observer nervous.'

- (A) Transient (B) Perennial
(C) Fleeting (D) Momentary

Q73. [Figure Analogy] A: square with 1 diagonal :: B: pentagon with 2 diagonals :: C: hexagon with 3 diagonals :: D: ?



n-gon with $(n-3)$ diagonals

- (A) Heptagon with 4 diagonals (B) Octagon with 3 diagonals
(C) Heptagon with 5 diagonals (D) Circle with 4 chords

Q74. Under Article 249, Rajya Sabha may empower Parliament to legislate on a State List subject in the national interest. The resolution requires:

- (A) Simple majority (B) Two-thirds of the members present and voting
(C) Absolute majority (D) Ratification by half the States

Q75. A shopkeeper marks his goods 40% above cost and offers a discount of 10% on the marked price. Determine his profit percent.



Markup + single discount

- (A) 26% (B) 24%
(C) 28% (D) 25%

Q76. The meaning of 'non sequitur' is:

- (A) A conclusion that does not follow from the premises (B) A binding agreement
(C) A courteous gesture (D) A ceremonial procession

Q77. Pointing to a lady, Ravi said, 'She is the wife of the only son of my grandfather.' How is the lady related to Ravi?

- (A) Mother (B) Aunt
(C) Wife (D) Sister

Q78. The Tropic of Cancer passes through how many Indian states?

- (A) 6 (B) 8
(C) 7 (D) 9

Q79. 50% of a number is 40 less than $\frac{3}{4}$ of the same number. Find the number.



Simple percentage equation

- (A) 160 (B) 180
(C) 120 (D) 200

Q80. Complete the sequence: 2A, 5D, 10G, 17J, ?



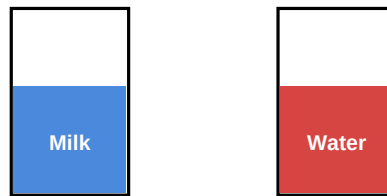
Alphanumeric compound

- (A) 26M (B) 26N
(C) 25M (D) 24M

Q81. The IAF motto 'Nabhah Sparsham Deeptam' translates to:

- (A) Service Before Self (B) Touch the Sky with Glory
(C) Sky is the Limit (D) Victory in the Skies

Q82. A 60-litre milk-water mixture is in ratio 7:3. How much water must be added to make the ratio 3:2?



Milk-water mixture — replacement problem

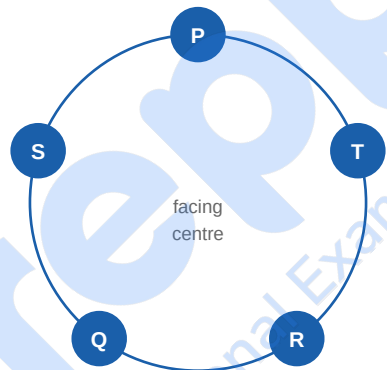
60 L milk-water 7:3 → add water → 3:2

- (A) 10 L (B) 12 L
(C) 8 L (D) 15 L

Q83. Synonym of the underlined word: 'The nefarious plot was uncovered by counter-intelligence at the last moment.'

- (A) Wicked (B) Virtuous
(C) Benevolent (D) Innocuous

Q84. [Circular Seating] Five friends P, Q, R, S, T sit at a round table facing centre. P is between S and T. R is on the immediate left of T. Q is on the immediate right of S. Who sits between P and R?



Facing centre

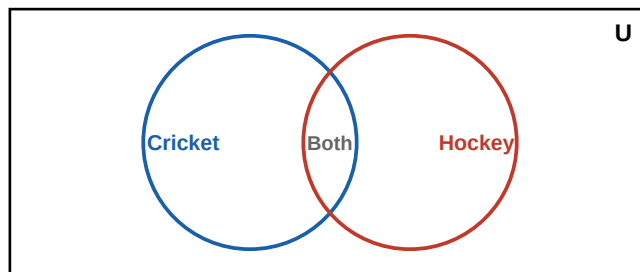
Deduce 5-seat arrangement

- (A) S (B) Q
(C) T (D) Nobody

Q85. Which of the following is a west-flowing peninsular river of India?

- (A) Godavari (B) Krishna
(C) Narmada (D) Cauvery

Q86. In a class, 70% students play cricket, 45% play hockey and 20% play NEITHER. Determine the percent that plays BOTH.



$$70\% + 45\% - x = 80\% \rightarrow x = 35\%$$

- (A) 30%
(C) 40%

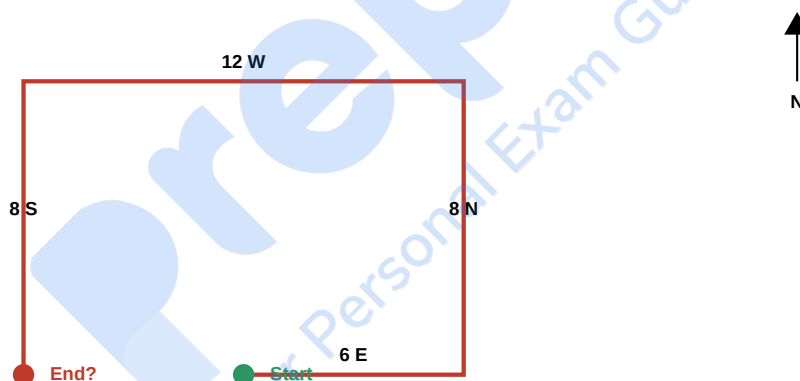
- (B) 35%
(D) 25%

Q87. Fill in the blank: 'The Commanding Officer's _____ demeanour - soft-spoken yet unmistakably commanding - was legend in the officers' mess.'

- (A) Understated
(C) Grandiloquent

- (B) Bombastic
(D) Ostentatious

Q88. A trainee jogs 6 km due East, 8 km due North, 12 km due West and finally 8 km due South. Find his displacement from the start (km).



Net displacement 6 m West

- (A) 6 km West
(C) 6 km East

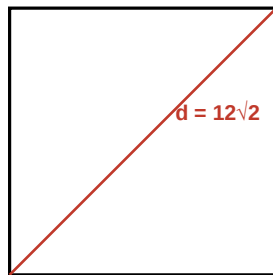
- (B) 0 km
(D) 8 km

Q89. India's 'Long-Term Low Emission Development Strategy (LT-LEDS)', submitted at COP-27, targets net-zero by:

- (A) 2050
(C) 2070

- (B) 2060
(D) 2075

Q90. The diagonal of a square is $12\sqrt{2}$ cm. Find its perimeter (cm).



Diagonal $\rightarrow$ side $\rightarrow$ perimeter

- (A) 48 (B) 36
(C) 60 (D) 44

Q91. Antonym of the underlined word: 'The apparently innocuous line in the diplomatic note carried a poisoned tail.'

- (A) Harmless (B) Innocent
(C) Pernicious (D) Benign

Q92. Find the odd pair (each of form 'cube - cube root'):



Cube-root check

- (A) 512 - 8 (B) 729 - 9
(C) 1000 - 10 (D) 343 - 6

Q93. The motto 'Yadi Bali Yadi Vidhya' belongs to which regiment/corps of the Indian Army?

- (A) Brigade of the Guards (B) The Parachute Regiment
(C) The Sikh Light Infantry (D) Mahar Regiment

Q94. A jet flies from A to B at 500 km/h and returns from B to A at 700 km/h. Determine its average speed for the round trip (km/h, approx).



Round-trip harmonic mean

- (A) 600 (B) 583.33
(C) 605.10 (D) 597.22

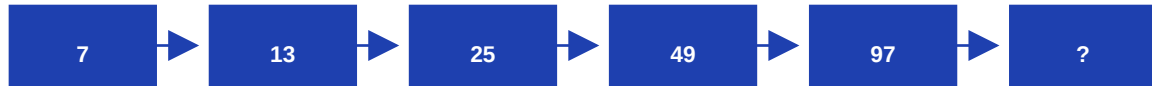
Q95. Choose the meaning of 'To be in the doldrums':

- (A) Be in high spirits (B) Be in a state of stagnation or depression
(C) Be at the summit of success (D) Be uncertain but hopeful

Q96. The 'Sagarmala' programme, launched in 2015 and scaled in phases through 2024, is spearheaded by:

- (A) Ministry of Ports, Shipping and Waterways (B) Ministry of External Affairs
(C) Ministry of Defence (D) Ministry of Home Affairs

Q97. Complete the series: 7, 13, 25, 49, 97, ?



Pattern: $2 \cdot \text{prev} - 1$

Find missing term

- (A) 195 (B) 193
(C) 191 (D) 197

Q98. The rank insignia of an Air Marshal in the IAF consists of:

- (A) National emblem over one four-pointed star over eagle & wreath
(B) National emblem over crossed baton and sword & wreath
(C) National emblem over three four-pointed stars over eagle & wreath
(D) National emblem over two four-pointed stars over eagle & wreath

Q99. The average marks of a class of 40 students is 65. If one student's marks were wrongly recorded as 45 instead of the actual 85, find the correct average.



Corrected average

- (A) 65 (B) 66
(C) 66.5 (D) 67

Q100. The 2024 Nobel Prize in Economics was awarded jointly to Daron Acemoglu, Simon Johnson and James A. Robinson for their studies on:

- (A) Auction theory (B) How institutions shape prosperity of nations
(C) Contract theory (D) Behavioural economics