NMAT Sample Paper 02

Instructions

- **Total Questions:** 108 Multiple Choice Items
- **Test Pattern:** Computer Adaptive Test (CAT format). Individual sectional time limits apply; no cross-sectional navigation is permitted.
- **Marking Scheme:** Correct Answer: +3 marks. Incorrect/Unattempted: 0 marks. No negative marking is applicable.

SECTION 1: LANGUAGE SKILLS — Time: 28 Minutes — 36 Questions

Directions for Questions 1–3: Read the passage below and answer the questions that follow.

Passage:
The rapid proliferation of social media has fundamentally altered how information is disseminated and consumed. While traditional journalism relied on editorial gatekeeping, social platforms allow unverified content to spread virally, creating what scholars term an 'infodemic'. Paradoxically, the same technology that enables misinformation also empowers citizens to fact-check authority figures in real time.

Q1. The word 'infodemic' as used in the passage most likely refers to:

A. An epidemic caused by social media addiction
B. A rapid, widespread outbreak of misinformation
C. A digital tool used by journalists to verify facts
D. The process of gatekeeping in traditional media

Q2. According to the passage, which of the following is a PARADOX presented by social media?

A. Social media replaces editorial gatekeeping completely
B. It both spreads misinformation and enables real-time fact-checking

C. Citizens are more informed than journalists

D. Traditional journalism is superior to digital platforms

Q3. The author's primary purpose in the passage is to:

A. Condemn social media platforms

B. Praise citizen journalism over traditional media

C. Present a balanced view of social media's dual impact on information

D. Propose solutions to the infodemic problem

Q4. Choose the word CLOSEST in meaning to 'disseminated':

A. Concealed

B. Distributed

C. Distorted

D. Delayed

Q5. Which statement, if true, would WEAKEN the author's argument about traditional journalism?

A. Social media algorithms actively suppress misinformation

B. Many traditional newspapers also published false information historically

C. Fact-checking websites are funded by tech companies

D. Citizens prefer video content over written articles

Q6. The tone of the passage can best be described as:

A. Polemical

B. Nostalgic

C. Analytical

D. Satirical

Q7. Choose the word most OPPOSITE in meaning to 'LOQUACIOUS':

A. Garrulous

B. Verbose

C. Taciturn

D. Effusive

Q8. Select the pair that best expresses a relationship similar to PAINTER : CANVAS:

A. Chef : Apron

B. Sculptor : Clay

C. Author : Publisher

D. Musician : Stage

Q9. Fill in the blank:
The diplomat's _____ response helped defuse the tension without offending either party.

A. Brusque
B. Tactful
C. Candid
D. Blunt

Q10. Choose the correctly spelled word:

A. Accomodate
B. Accommodate
C. Acommodate
D. Accomadate

Q11. Identify the IDIOM and its correct meaning: 'Burn the midnight oil'

A. To cause a fire accidentally at night
B. To waste resources carelessly
C. To work or study late into the night
D. To be extremely angry

Q12. Choose the word that correctly completes the analogy:
MISER : FRUGAL :: PHILANTHROPIST : _____

A. Wealthy
B. Generous
C. Greedy
D. Humble

Q13. Identify the grammatically CORRECT sentence:

A. Neither the manager nor the employees was present.
B. Neither the manager nor the employees were present.
C. Neither the manager nor the employees is present.
D. Neither the manager nor the employees have been present yesterday.

Q14. Choose the correct form to complete the sentence:
'The data _____ been analysed thoroughly.'

A. has
B. have
C. is
D. was

Q15. Select the sentence with the correct use of tense:

A. She has left the office before I arrived.
B. She had left the office before I arrived.
C. She left the office before I will arrive.
D. She was leaving the office before I arrived.

Q16. Which sentence uses the PASSIVE VOICE correctly?

A. The committee will review the proposal.
B. The proposal will be reviewed by the committee.
C. The proposal reviews the committee.
D. Reviewing the proposal, the committee decided.

Q17. Identify the part of speech of the underlined word:
'Running is her favourite hobby.'

A. Verb
B. Adjective
C. Gerund (Noun)
D. Participle

Q18. Fill in the blanks with the correct prepositions:
'He has been working _____ this project _____ three months.'

A. at, since
B. on, for
C. in, since
D. over, from

Q19. Arrange the sentences to form a coherent paragraph:
P: However, the transition to online learning exposed a stark digital divide.
Q: The COVID-19 pandemic forced educational institutions worldwide to shift online.
R: Millions of students in rural areas lacked devices and internet connectivity.
S: Governments rushed to bridge this gap with emergency funding.

A. QPRS
B. QRPS
C. PQRS
D. RQPS

Q20. Find the ODD ONE OUT:

A. Simile
B. Metaphor
C. Alliteration

D. Onomatopoeia

Q21. Choose the word that best fills the blank:
'The scientist's _____ approach to the experiment ensured accurate and reproducible results.'

A. Haphazard
B. Meticulous
C. Perfunctory
D. Arbitrary

Q22. Identify the CORRECT use of the words 'Affect' vs 'Effect':

A. The medicine had no affect on the patient.
B. The cold weather effected his mood negatively.
C. Poor nutrition can affect a child's development.
D. The new law had little affect on crime rates.

Q23. Read the sentence and choose the best summary:
'Despite the proliferation of digital communication tools, face-to-face interactions remain irreplaceable for building deep, trust-based professional relationships.'

A. Digital tools are superior to face-to-face meetings.
B. Technology has made professional relationships easier.
C. In-person interaction is essential for strong professional bonds despite digital alternatives.
D. Trust cannot be built through any form of communication.

Q24. Choose the SYNONYM of 'EPHEMERAL':

A. Eternal
B. Transient
C. Permanent
D. Resilient

Q25. The idiom 'Cutting corners' means:

A. Making precise geometric cuts
B. Reducing costs by using cheaper materials
C. Doing something in the easiest or cheapest way, often sacrificing quality
D. Taking a shortcut through a park

Q26. In the sentence 'The board decided to table the motion', 'table' means:

A. To put forward for discussion (British English)
B. To postpone indefinitely (American English)
C. Both A and B depending on context/region

D. To reject permanently

Q27. Identify the figure of speech:
'The wind whispered secrets through the trees.'

A. Simile
B. Personification
C. Hyperbole
D. Oxymoron

Q28. Choose the word with the CORRECT prefix to mean 'against war':

A. Pro-war
B. Anti-war
C. Semi-war
D. Inter-war

Q29. Select the grammatically correct sentence:

A. Between you and I, this plan will not work.
B. Between you and me, this plan will not work.
C. Between you and myself, this plan will not work.
D. Between I and you, this plan will not work.

Q30. A paragraph begins: 'Climate change poses an existential threat to coastal cities.' Which sentence BEST continues this paragraph?

A. Many people enjoy visiting beach resorts for vacation.
B. Rising sea levels and extreme weather events are already displacing communities.
C. The history of climate science dates back to the 19th century.
D. Scientists disagree about the definition of climate change.

Q31. The word 'AMELIORATE' most nearly means:

A. Worsen
B. Improve
C. Maintain
D. Evaluate

Q32. Fill in the blank with the appropriate conjunction:
'She studied hard _____ she did not score well in the exam.'

A. so
B. because
C. yet
D. therefore

Q33. Identify the ERROR in the sentence:
'Each of the students have submitted their assignment on time.'

A. 'Each' should be 'All'
B. 'have' should be 'has'
C. 'their' should be 'his'
D. 'on time' should be 'in time'

Q34. Choose the ANTONYM of 'VERBOSE':

A. Garrulous
B. Loquacious
C. Terse
D. Eloquent

Q35. In a Para-Jumble structure, which of the following should be the LAST sentence?
P: This led to the formation of international climate agreements.
Q: Scientists began documenting rising global temperatures in the 20th century.
R: Governments recognised the urgency and convened global summits.
S: These findings alarmed policymakers worldwide.

A. Q
B. S
C. R
D. P

Q36. Choose the meaning of the phrase 'To beat around the bush':

A. To work very hard in difficult conditions
B. To avoid talking about the main point
C. To punish someone harshly
D. To search thoroughly in a forest

SECTION 2: QUANTITATIVE SKILLS — Time: 52 Minutes — 36 Questions

Q37. A shopkeeper marks up a product by 40% above its cost price and then offers a discount of 25%. What is the net profit or loss percentage?

A. 5% Profit

B. 5% Loss

C. 10% Profit

D. No Profit No Loss

Q38. Two trains start simultaneously from stations A and B towards each other. Train X travels at 60 km/h and Train Y at 90 km/h.
If the distance between A and B is 300 km, after how many hours will they meet?

A. 1 hour

B. 2 hours

C. 2.5 hours

D. 3 hours

Q39. The simple interest on a sum of money at 8% per annum for 3 years is 1,920. What is the principal amount?

A. 6,000

B. 8,000

C. 7,200

D. 9,600

Q40. In how many ways can the letters of the word 'MATHS' be arranged?

A. 60

B. 120

C. 24

D. 720

Q41. A bag contains 4 red balls and 6 blue balls. If one ball is drawn at random, what is the probability that it is red?

A. 2/5

B. 3/5

C. 1/4

D. 1/2

Q42. Pipe A can fill a tank in 12 hours and Pipe B can fill it in 18 hours. If both pipes are opened together, how long will it take to fill the tank?

A. 6.8 hours

B. 7.2 hours

C. 8 hours

D. 9 hours

Q43. The average marks of 20 students is 72.
If the marks of one student are included,the average becomes 73.
What are the marks of the new student?

A. 93

B. 88

C. 95

D. 73

Q44. If $\log_{10}(2) = 0.301$ and $\log_{10}(3) = 0.477$, find $\log_{10}(24)$.

A. 1.380

B. 1.778

C. 1.681

D. 1.602

Q45. The difference between compound interest and simple interest on a sum of 10,00 0at 10% per annum for 2 years is:

A. 100

B. 200

C. 1,000

D. 500

Q46. A and B together can complete a work in 8 days. A alone can do it in 12 days. In how many days can B alone complete the work?

A. 16 days

B. 20 days

C. 24 days

D. 28 days

Q47. Solve: $3x + 2y = 16$ and $x - y = 1$. Find x and y.

A. $x = 4, y = 2$

B. $x = 3, y = 3$

C. $x = 4, y = 3$

D. $x = 5, y = 1$

Q48. In an AP, the first term is 5 and the common difference is 3. What is the 15th term?

A. 42
B. 44
C. 47
D. 50

Q49. A sum of money doubles itself in 8 years at simple interest. What is the rate of interest?

A. 10%
B. 12.5%
C. 8%
D. 15%

Q50. From a group of 6 men and 4 women, a committee of 4 is to be formed. How many committees can be formed with exactly 2 men and 2 women?

A. 60
B. 90
C. 120
D. 45

Q51. Study the data: Sales in 2023 = 4.8 lakh; Sales in 2024 = 6 lakh. What is the percentage increase?

A. 20%
B. 25%
C. 30%
D. 15%

Q52. If $x^2 - 5x + 6 = 0$, find the values of x.

A. $x = 2$ or $x = 3$
B. $x = 1$ or $x = 6$
C. $x = -2$ or $x = -3$
D. $x = 2$ or $x = -3$

Q53. A train 150 m long passes a pole in 15 seconds. What is the speed of the train in km/h?

A. 32 km/h
B. 36 km/h
C. 40 km/h
D. 45 km/h

Q54. In a mixture of 60 litres, the ratio of milk to water is 2:1. How much water must be added to make the ratio 1:2?

A. 60 litres

B. 40 litres

C. 80 litres

D. 30 litres

Q56. The HCF and LCM of two numbers are 8 and 48 respectively. If one number is 16, find the other.

A. 24

B. 32

C. 20

D. 12

Q57. A shopkeeper gives two successive discounts of 10% and 20%. Find the effective discount.

A. 28%

B. 30%

C. 25%

D. 32%

Q58. If 4 workers can complete a task in 18 days, how many workers are needed to complete the same task in 12 days?

A. 5

B. 6

C. 7

D. 8

Q59. Data Interpretation: In a class of 100 students, 60 study Maths, 50 study Science, and 30 study both. How many study neither?

A. 10

B. 15

C. 20

D. 25

Q60. Find the value of: $\sqrt{0.0169}$

A. 0.13

B. 0.013

C. 1.3

D. 0.0013

Q61. A sum triples itself in 20 years at simple interest. What is the annual interest rate?

A. 8%

B. 10%

C. 12%

D. 15%

Q62. In how many ways can 5 students be seated in a row if 2 specific students must always sit together?

A. 24

B. 36

C. 48

D. 72

Q63. The compound interest on 5,000 at 20% per annum for 1.5 years, compounded half-yearly, is:

A. 1,655

B. 1,500

C. 1,576.25

D. 1,600

Q64. Find the sum of the first 10 terms of the AP: 2, 5, 8, 11, ...

A. 145

B. 155

C. 160

D. 175

Q65. If $P(A) = 0.4$, $P(B) = 0.5$, and A and B are independent events, find $P(A \cap B)$.

A. 0.9

B. 0.2

C. 0.1

D. 0.45

Q66. A car travels at 60 km/h for 2 hours and then at 90 km/h for 3 hours. What is the average speed for the entire journey?

A. 72 km/h

B. 75 km/h

C. 78 km/h

D. 80 km/h

Q67. The ratio of boys to girls in a class is 3:2. If there are 12 boys, how many girls are there?

A. 6
B. 8
C. 10
D. 18

Q68. Solve the inequality: $2x - 7 > 3$

A. $x > 2$
B. $x > 5$
C. $x > 3$
D. $x > 4$

Q69. A table is sold for 2,880, resulting in a profit of 20%. Find the cost price.

A. 2,300
B. 2,400
C. 2,500
D. 2,600

Q70. In a class, 30% of students failed in Maths, 25% failed in English, and 10% failed in both. What percentage passed in both subjects?

A. 45%
B. 55%
C. 60%
D. 50%

Q71. What is the value of 2^{10}?

A. 512
B. 1024
C. 2048
D. 256

Q72. A circular wheel has a circumference of 88 cm. How many revolutions will it take to cover 1,320 m?

A. 1,200
B. 1,400
C. 1,500
D. 1,650

Q73. If the roots of $x^2 + px + q = 0$ are 3 and 4, find p and q.

A. $p = -7, q = 12$
B. $p = 7, q = 12$
C. $p = -7, q = -12$
D. $p = 7, q = -12$

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SECTION 3: LOGICAL REASONING — Time: 40 Minutes — 36 Questions

Q74. In a seating arrangement, 6 people A, B, C, D, E, F sit in a row.
A sits at one end.B is adjacent to A. C is two seats from B. D sits between C and E.
Who sits at the other end?

A. C
B. D
C. E
D. F

Q75. A is the father of B. C is the mother of D. B is the sister of D.
How is A related to D?

A. Father
B. Uncle
C. Grandfather
D. Brother

Q76. If BOOK is coded as 2-15-15-11, how is DOOR coded?

A. 4-15-15-18
B. 3-15-15-17
C. 4-16-16-18
D. 4-14-14-18

Q77. Which number comes next in the series: 2, 6, 12, 20, _____?

30,A. 40
B. 42
C. 44
D. 46

Q78. Statement: All cats are animals. Some animals are dogs.
Conclusion I: Some cats are dogs.
Conclusion II: Some animals are cats.

A. Only I follows
B. Only II follows
C. Both I and II follow
D. Neither follows

Q6. A clock shows 3:45. What angle does the minute hand make with the hour hand?

A. 157.5°

B. 172.5°

C. 142.5°

D. 165°

Q79. In a Venn diagram with 3 circles (Cricket, Football, Hockey), 10 play all three, 20 play Cricket and Football only, 15 play Football and Hockey only, 25 play Cricket and Hockey only, 30 play only Cricket, 25 play only Football, 20 play only Hockey. How many play at least two sports?

A. 60

B. 70

C. 80

D. 90

Q80. Direction Sense: Ram starts facing North. He turns 90° clockwise, then 180°clockwise, then 45° anti-clockwise. In which direction is he now facing?

A. South-East

B. North-West

C. South-West

D. North-East

Q81. Critical Reasoning: 'All students who study daily pass their exams. Ravi passed his exam.' Which conclusion is VALID?

A. Ravi studied daily.

B. Ravi is a student.

C. Ravi may or may not have studied daily.

D. All students pass their exams.

Q82. Input-Output: If INPUT: 7 4 9 2 5 1 6 3 8 (sorted descending in step 1, then each element multiplied by 2 in step 2). What is the 4th element after Step 2?

A. 14

B. 12

C. 10

D. 8

Q83. Syllogism:
Premise 1: No politicians are honest.
Premise 2: All honest people are respected.
Conclusion: No politicians are respected.

A. The conclusion definitely follows

B. The conclusion may or may not follow

C. The conclusion does not follow from the premises

D. The conclusion follows only if politicians can be respected

Q84. Find the missing number in the pattern: 2 5 11 23 47 _____

A. 93
B. 95
C. 96
D. 97

Q85. 5 friends sit around a circular table. How many distinct arrangements are possible?

A. 24
B. 120
C. 60
D. 30

Q86. Blood Relations: Pointing to a photo, Priya says 'His mother's only son is my father.' How is the person in the photo related to Priya?

A. Grandfather
B. Uncle
C. Father
D. Brother

Q87. Assumptions: Statement: 'Please switch off lights when not in use to save electricity.'
Assumption I: Electricity is a valuable resource.
Assumption II: People tend to leave lights on when not needed.

A. Only I is implicit
B. Only II is implicit
C. Both are implicit
D. Neither is implicit

Q88. Cubes: A cube is painted red on all faces and cut into 64 smaller cubes. How many small cubes have exactly 2 faces painted?

A. 8
B. 16
C. 24
D. 32

Q17. Series: Which term does NOT belong? 3, 7, 15, 31, 61, 127

A. 15
B. 31
C. 61

D. 127

Q89. Seating: A, B, C, D, E sit in a circle. A is between D and E. B is to the right of E. C is between A and B. Who is to the immediate right of D?

A. A
B. B
C. C
D. E

Q90. Course of Action:
Problem: A city is experiencing severe flooding due to monsoon.
Course I: Deploy rescue teams to affected areas.
Course II: Conduct a survey on flood patterns next year.

A. Only I is proper
B. Only II is proper
C. Both are proper
D. Neither is proper

Q91. Calendar: If 1 January 2020 was a Wednesday, what day was 1 January 2021?

A. Thursday
B. Friday
C. Saturday
D. Sunday

Q92. Statement and Argument:
Statement: Should voting be made compulsory in India?
Argument FOR: Yes, it increases democratic participation.
Argument AGAINST: No, it infringes upon individual freedom.

A. Only FOR is strong
B. Only AGAINST is strong
C. Both are strong
D. Neither is strong

Q93. Figure-based: A series of figures shows a square rotating 45° clockwise each time with one dot added. If figure 1 has 1 dot and is upright, what is figure 5?

A. Square at 180° with 5 dots
B. Square at 0° (upright) with 5 dots
C. Square at 45° with 5 dots
D. Diamond shape with 4 dots

Q94. Logical Deduction: All triangles have 3 sides. All polygons are closed figures. No circles are polygons. Which is definitely TRUE?

A. All circles have 3 sides
B. Triangles are not polygons
C. All triangles are closed figures
D. Circles can be triangles

Q95. Coding-Decoding: If 'LIGHT' is coded as 'MJHIU', how is 'POWER' coded?

A. QPXFS
B. QOXES
C. RPXFS
D. QPWFS

Q96. Input-Output Logic:
If Sun → Moon → Star → Planet maps to A → B → C → D, what does 'Star' correspond to?

A. A
B. B
C. C
D. D

Q97. Critical Reasoning: The unemployment rate fell from 8% to 6% last year. Therefore, the economy improved. Which option WEAKENS this argument most?

A. Many previously unemployed people stopped looking for work
B. New jobs were created in the technology sector
C. Government increased minimum wages
D. The stock market showed positive returns

Q98. Seating Arrangement: 8 people sit in a row. P and Q must not sit adjacent. In how many ways can P and Q be placed if overall there are 8 positions?

A. 20
B. 28
C. 36
D. 42

Q99. Inferences:
Statement: India's renewable energy capacity reached 200 GW in 2024.
Inference: India has completely eliminated fossil fuel usage.

A. The inference definitely follows
B. The inference probably follows
C. The inference is uncertain
D. The inference definitely does not follow

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Q100. Letter Series: What comes next? A, D, G, J, _____?

M,A. O

B. P

C. Q

D. R

Q101. Blood Relation: If X's son is Y's brother, and Z is Y's mother, how is X related to Z?

A. Husband

B. Father

C. Brother

D. Son

Q102. Statement: 'No effort, no success.'
Assumption I: Success requires effort.
Assumption II: Effort always guarantees success.

A. Only I is implicit

B. Only II is implicit

C. Both are implicit

D. Neither is implicit

Q103. Puzzle: Five boxes are stacked. Box A is above Box B. Box C is below Box D.Box E is between A and C. Box D is at the top.

Find the sequence from top to bottom.A. D, A, E, C, B

B. D, C, E, A, B

C. D, A, B, E, C

D. D, E, A, B, C

Q104. Number-Letter Coding: In a code, 1=A, 2=B, 3=C... 'MAN' would be coded as:

A. 13-1-14

B. 12-1-13

C. 13-2-14

D. 14-1-13

Q105. Critical Reasoning—Strengthen: '
Regular exercise reduces the risk of cardio-vascular disease.'
Which option STRENGTHENS this?

A. A sedentary lifestyle is linked to obesity

B. Studies show active individuals have 35% lower heart disease rates

C. Gym memberships have increased in urban areas

D. Dietary habits also influence heart health

Q106. Missing Figure Logic: In a 3×3 grid of shapes, the pattern is: Circle, Square, Triangle across each row. The bottom right is missing. The third row has Circle, Square, _____?

A. Circle

B. Square

C. Triangle

D. Pentagon

Q107. Analogy: ANAEMIA : BLOOD :: _____

OSTEOPOROSIS :A. Nerves

B. Muscles

C. Bones

D. Skin

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Solutions

Section 1: Language Skills

1 (B) **A rapid, widespread outbreak of misinformation**
The text defines an 'infodemic' inside the dynamic context of unverified information multiplying virally, echoing a pandemic outbreak of falsehoods.

2 (B) **It both spreads misinformation and enables real-time fact-checking**
The word 'paradoxically' introduces a dual system state: the same digital tool concurrently circulates misinformation and empowers immediate verification.

3 (C) **Present a balanced view of social media's dual impact on information**
The passage does not issue one-sided praise or condemnation; it charts both negative and positive media parameters in a balanced manner.

4 (B) **Distributed**
'Disseminated' literally translates to scattered or spread out; thus, 'Distributed' behaves as the most accurate contextual synonym.

5 (B) **Many traditional newspapers also published false information historically**
If traditional media historically spread falsehoods, the author's primary distinction between old gatekeeping safety vs online anarchy is weakened.

6 (C) **Analytical**
The context evaluates system characteristics and properties neutrally, ensuring an objective, detached, and analytical tone.

7 (C) **Taciturn**
'Loquacious' describes an individual who is highly talkative. Its precise linguistic antonym is 'Taciturn' (reserved or uncommunicative).

8 (B) **Sculptor : Clay**
An artist-to-creation-medium relationship layout model. A painter applies paint to a canvas; a sculptor executes shape shifts on clay.

9 (B) **Tactful**

A 'tactful' response denotes careful, sensitive management of an issue, making it ideal to defuse situational friction without giving offense.

10 (B) **Accommodate**
The correct standard orthographic form is 'Accommodate', constructed with an explicit double 'c' and double 'm'.

11 (C) **To work or study late into the night**
The traditional idiom 'burn the midnight oil' signifies keeping awake, researching, or working late into the nighttime hours.

12 (B) **Generous**
A miser is characterized by being frugal with assets. A philanthropist is standardly characterized by being generous with charity.

13 (B) **Neither the manager nor the employees were present.**
Grammatical subject-verb proximity constraint: Nouns connected via 'neither...nor' demand verb agreement with the closest item ('employees' → plural 'were').

14 (B) **have**
Under formal academic guidelines, 'data' maps strictly as a plural noun (the plural form of 'datum'), thereby choosing the plural auxiliary 'have'.

15 (B) **She had left the office before I arrived.**
Past perfect configuration ('had left') is required to denote a past sequence state completed before a separate past milestone ('arrived').

16 (B) **The proposal will be reviewed by the committee.**
Option B carries out passive grammatical structure properly: Complement Subject + passive voice auxiliary link + past participle + actor node.

17 (C) **Gerund (Noun)**
The '-ing' form 'Running' acts directly as the subject noun of this statement, which classifies its active part of speech as a gerund.

18 (B) **on, for**
The verb 'working' pairs with 'on' for assignment operations, whereas quantified blocks of temporal duration require 'for' ('for three months').

19 (A) **QPRS**

Structural paragraph ordering flow: Pandemic emergence event (Q) → Shift to digital tools challenges (P) → Specific local rural constraints (R) → Funding response (S).

20 (A) **Simile**

Simile explicitly deploys a comparator ('like' or 'as'), separating its operational mode from Metaphor, Alliteration, and Onomatopoeia.

21 (B) **Meticulous**

'Meticulous' signifies an uncompromised, careful attention to technical details, which guarantees reproducible and highly accurate outputs.

22 (C) **Poor nutrition can affect a child's development.**

'Affect' behaves standardly as an active verb form mapping influence operations, while 'Effect' tracks a nominal output condition.

23 (C) **In-person interaction is essential for strong professional bonds despite digital alternatives.**

The sentence conceded digital tool expansion but clearly emphasized that in-person contact is irreplaceable to construct professional trust bonds.

24 (B) **Transient**

'Ephemeral' describes temporary traits or items lasting a brief period. 'Transient' matches cleanly as a true synonym.

25 (C) **Doing something in the easiest or cheapest way, often sacrificing quality**

The popular idiom 'cutting corners' signifies selecting a fast, simple path that compromises core quality thresholds or safety criteria.

26 (C) **Both A and B depending on context/region**

Structural linguistic variance: In British usage, to 'table' implies submitting an entry for immediate discussion; American models mean to shelve it.

27 (B) **Personification**

Attributing a human physical vocal capability ('whispered secrets') to a mechanical weather event ('the wind') builds personification.

28 (B) **Anti-war**

The classic semantic prefix 'anti-' denotes absolute opposition or aversion; hence, 'anti-war' means against war.

29 (B) **Between you and me, this plan will not work.**
The structural preposition 'between' serves as a grammatical governor that strictly requires pronouns in the objective case ('me' instead of 'I').

30 (B) **Rising sea levels and extreme weather events are already displacing communities.**
The opening sentence poses an existential threat to coastal cities. Option B elaborates directly with supporting physical metrics (sea levels).

31 (B) **Improve**
To 'ameliorate' means to significantly upgrade, refine, or enhance a broken or defective baseline state; i.e., to improve.

32 (C) **yet**
The coordinating conjunction 'yet' is standardly required to represent absolute contrast against high preparation efforts.

33 (B) **'have' should be 'has'**
Distributive headers like 'Each' establish a singular subject orientation track, requiring a singular verb agreement selection ('has').

34 (C) **Terse**
'Verbose' defines a text or speaker using excessive words. Its direct analytical opposite parameter is 'Terse' (brief and to the point).

35 (D) **P**
Chronological sequence trace: Documenting temperatures (Q) → Alarms policy structures (S) → Convenes global summits (R) → Formulates climate pacts (P).

36 (B) **To avoid talking about the main point**
The phrase 'to beat around the bush' describes deliberately delaying or avoiding the core talking point through distracting speech paths.

Section 2: Quantitative Skills

37 (A) **5% Profit**

Marked Up Price = $1.40 \times$ CP. After discount, Selling Price = $0.75 \times (1.40 \times \text{CP}) = 1.05 \times \text{CP} \rightarrow 5\%$ Profit.

38 (B) **2 hours**

Traveling in opposite directions yields a relative velocity sum: $V_{\text{rel}} = 60+90 = 150$ km/h. Time = $\frac{300 \text{ km}}{150 \text{ km/h}} = 2$ hours.

39 (B) **8,000**

Simple Interest equation: SI = $\frac{P \times R \times T}{100} \rightarrow 1920 = \frac{P \times 8 \times 3}{100} \rightarrow P = \frac{192000}{24} = 8,000$.

40 (B) **120**

The word contains 5 distinct letter tokens. Total unique linear permutations = $5! = 120$.

41 (A) **2/5**

Total sample size = $4 + 6 = 10$. Probability $P(\text{Red}) = \frac{\text{Favorable Red Balls}}{\text{Total Outcomes}} = \frac{4}{10} = \frac{2}{5}$.

42 (B) **7.2 hours**

Net rate equation via reciprocals: $\text{Rate}_{\text{comb}} = \frac{1}{12} + \frac{1}{18} = \frac{3+2}{36} = \frac{5}{36} \rightarrow$ Time = $\frac{36}{5} =$ 7.2 hours.

43 (A) **93**

$\text{Sum}_{20} = 20 \times 72 = 1440$. $\text{Sum}_{21} = 21 \times 73 = 1533$. New Student Mark = $1533 - 1440 =$ 93.

44 (A) **1.380**

Logarithmic properties: $\log_{10}(24) = \log_{10}(2^3 \times 3) = 3\log_{10}(2) + \log_{10}(3) = 3(0.301) +$ $0.477 = 1.380$.

45 (A) **100**

SI = $\frac{10000 \times 10 \times 2}{100} = 2000$. CI = $10000 \times (1.10)^2 - 10000 = 2100$. Net Variance = $2100 -$ $2000 = 100$.

46 (C) **24 days**

Rate equation for individual output: $\text{Rate}_B = \text{Rate}_{A+B} - \text{Rate}_A = \frac{1}{8} - \frac{1}{12} = \frac{3-2}{24} = \frac{1}{24} \rightarrow$ 24 days.

47 (A) **x = 4, y = 2**

From $x - y = 1 \rightarrow x = y + 1$. Substitute: $3(y + 1) + 2y = 16 \rightarrow 5y = 13 \rightarrow y = 2.6$.

48 (C) **47**

General formula for the n-th arithmetic term: $T_n = a + (n-1)d \rightarrow T_{15} = 5 + (15-1)3 = 5 + 42 = 47$.

49 (B) **12.5%**

For principal value doubling under simple interest conditions, SI $= P$. $P = \frac{P \times R \times 8}{100} \rightarrow 8R = 100 \rightarrow R = 12.5\%$.

50 (B) **90**

Selection combination formula: $\binom{6}{2} \times \binom{4}{2} = \frac{6\times5}{2} \times \frac{4\times3}{2} = 15 \times 6 = 90$.

51 (B) **25%**

Absolute increment metric $= 6 - 4.8 = 1.2$ lakhs. Percentage increase $= \frac{1.2}{4.8} \times 100 = 25\%$.

52 (A) **x = 2 or x = 3**

Factorizing the quadratic equation: $x^2 - 5x + 6 = 0 \rightarrow (x-2)(x-3) = 0 \rightarrow x = 2$ or $x = 3$.

53 (B) **36 km/h**

Linear Speed $= \frac{150 \text{ m}}{15 \text{ s}} = 10$ m/s. Metric convert to km/h index: $10 \times \frac{18}{5} = 36$ km/h.

54 (A) **60 litres**

Initial: Milk $= 40$L, Water $= 20$L. To form a 1:2 ratio with unvaried milk, final water $= 2 \times 40 = 80$L. Add $80 - 20 = 60$L.

55 (A) **24**

Fundamental factor theorem rule: $n_1 \times n_2 = \text{HCF} \times \text{LCM} \rightarrow 16 \times n_2 = 8 \times 48 \rightarrow n_2 = 24$.

56 (A) **28%**

Successive discount formula application: $100 \xrightarrow{-10\%} 90 \xrightarrow{-20\%} 90 \times 0.80 = 72$. Net discount $= 100 - 72 = 28\%$.

57 (B) **6**

Inverse variation rules apply: $W_1 \times D_1 = W_2 \times D_2 \rightarrow 4 \times 18 = W_2 \times 12 \rightarrow 12W_2 = 72 \rightarrow W_2 = 6$.

58 (C) **20**

Set identity union formula: $n(M \cup S) = 60 + 50 - 30 = 80$. Students studying neither path $= 100 - 80 = 20$.

59 (A) **0.13**

Evaluating decimal square root: $\sqrt{0.0169} = \sqrt{\frac{169}{10000}} = \frac{13}{100} = 0.13$.

60 (B) **10%**

Tripling principal assets maps interest value onto SI $= 2P$. $2P = \frac{P \times R \times 20}{100} \rightarrow 20R = 200 \rightarrow R = 10\%$.

61 (C) **48**

Grouping block permutations: Treat target elements as 1 package $\rightarrow 4! = 24$. Internal variance $= 2! = 2 \rightarrow 24 \times 2 = 48$.

62 (A) **1,655**

Semi-annual compound interest: $R = 10\%, n = 3$. Amount $= 5000 \times (1.10)^3 = 6655$. CI $= 6655 - 5000 = 1,655$.

63 (B) **155**

Arithmetic progression summation formula: $S_n = \frac{n}{2}[2a+(n-1)d] \rightarrow S_{10} = 5[4+(9\times3)] = 5 \times 31 = 155$.

64 (B) **0.2**

Probability multiplication theorem for independent sets: $P(A \cap B) = P(A) \times P(B) = 0.4 \times 0.5 = 0.2$.

65 (C) **78 km/h**

Total Distance $= (60 \times 2) + (90 \times 3) = 390$ km. Total Time $= 5$ hours. Average speed $= \frac{390}{5} = 78$ km/h.

66 (B) **8**

Ratio scaling application: $\frac{3}{2} = \frac{12}{\text{Girls}} \rightarrow 3 \times \text{Girls} = 24 \rightarrow \text{Girls} = 8$.

67 (B) **x > 5**

Rearranging basic inequalities: $2x - 7 > 3 \rightarrow 2x > 10 \rightarrow x > 5$.

68 (B) **2,400**

Reverse profit calculations pattern: SP $= 1.20 \times$ CP $\rightarrow 2880 = 1.2$CP $\rightarrow$ CP $= \frac{2880}{1.2} = 2,400$.

69 (B) **55%**

Total failed set $= 30\% + 25\% - 10\% = 45\%$. Net students who passed both segments $= 100\% - 45\% = 55\%$.

70 (B) **1024**

Evaluating standard binary exponents directly returns the numerical output value: $2^{10} = 1024$.

71 (C) **1,500**

Circumference convert to meters $= 0.88$ m. Total revolutions required $= \frac{1320 \text{ m}}{0.88 \text{ m}} = 1500$.

72 (A) **p = -7, q = 12**

Sum of roots properties: $3 + 4 = 7 = -p \rightarrow p = -7$. Product of roots: $3 \times 4 = 12 = q$. Thus, $p = -7, q = 12$.

Section 3: Logical Reasoning

73 (D) **F**

Spatial matrix order resolution matching all explicit constraints yields: $A(1) - B(2) - F(3) - C(4) - D(5) - E(6)$. F rests at the end.

74 (A) **Father**

Sibling matching rules: B and D are siblings sharing parents. Since A is the father of B, A matches as the father of D.

75 (A) **4-15-15-18**

Character string transposition via alphabet index parameters: $D = 4, O = 15, O = 15, R = 18 \rightarrow$ `4-15-15-18`.

76 (B) **42**

Processing continuous step increments: $+4, +6, +8, +10$. The next logical pattern update is $+12 \rightarrow 30 + 12 = 42$.

77 (B) **Only II follows**

Since the entire cat set is wrapped inside animals, any intersection looking at cats estab-

lishes that some animals are cats.

78 (A) **157.5°**
Minute hand at 45 min = 270°. Hour hand position at 3:45 = (3×30)+(45×0.5) = 112.5°. Variance = 270 − 112.5 = 157.5°.

79 (B) **70**
Set intersections: At least two = Sum of exact pairs + All three subset = 20 + 15 + 25 + 10 = 70.

80 (C) **South-West**
Tracking rotation indices: Start (0°) $\xrightarrow{\text{CW } +90^\circ}$ 90° $\xrightarrow{\text{CW } +180^\circ}$ 270° $\xrightarrow{\text{ACW } -45^\circ}$ 225° ≡ South-West.

81 (C) **Ravi may or may not have studied daily.**
Passing does not constitute proof of daily study because the text does not state that daily study is the exclusive path to pass.

82 (B) **12**
Sorting array data descending: 9, 8, 7, 6, 5. . . Multiplying components by 2 tracks indices as: 18, 16, 14, 12. The 4th term is 12.

83 (C) **The conclusion does not follow from the premises**
Politicians and honest sets are exclusive, but honest is a sub-bundle of respected. Politicians can be respected via outer criteria.

84 (B) **95**
Algorithmic pattern sequence rule: $n_k = (2 \times n_{k-1}) + 1$. Working out the next step outputs: $(2 \times 47) + 1 = 95$.

85 (A) **24**
Circular linear arrangement permutation system rules for distinct items: $(n-1)! = (5-1)! = 4! = 24$.

86 (C) **Father**
Priya's father tracks directly as her mother's only son. This identifies the individual in the image frame as her father.

87 (C) **Both are implicit**

Recommending conservation implicitly relies on electricity holding worth (I) and that users are prone to leaving items running (II).

88 (C) **24**

Edge coordinate pieces equation: Total edges = 12. Formula = $12 \times (n-2) = 12 \times (4-2) =$ 24 cubes.

89 (C) **61**

The mathematical progression rule demands $n_k = (2 \times n_{k-1}) + 1$. This invalidates element 61, which should be 63.

90 (A) **A**

Clockwise circle seating layout trace meeting constraints: D – A – C – B – E – D. Immediate right of D is A.

91 (A) **Only I is proper**

Course I addresses a high-stakes, real-time localized crisis directly, whereas Course II stalls action to a generic future timeframe.

92 (B) **Friday**

The calendar year 2020 was a leap year housing 2 odd days. Thus, Wednesday + 2 days = Friday.

93 (C) **Both are strong**

Both logic chains offer strong points: FOR introduces valid turnout metrics; AGAINST protects fundamental free choice thresholds.

94 (A) **Square at 180° with 5 dots**

Rotation calculation: $45° \times 4 = 180°$ spatial rotation. This matches the square shape orientation profile while carrying 5 dots.

95 (C) **All triangles are closed figures**

Triangles are three-sided polygons, and polygons are entirely enclosed figures; thus, all triangles are closed figures.

96 (A) **QPXFS**

Character coding layout model applying a uniform +1 alphabet forward translation ma-

trix directly yields QPXFS.

97 (C) **C**

Positional element tracking maps items linearly in equivalent slots: Sun $= A$, Moon $= B$, Star $= C$, Planet $= D$.

98 (A) **Many previously unemployed people stopped looking for work**

If individuals exit active workforce tracking pools because they stop searching, the net unemployment index drops artificially without economic growth.

99 (D) **42**

Placement permutations equation: Total linear choices minus overlapping spaces $= \binom{8}{2} - 7 = 21$. External sorting flips $= 21 \times 2! = 42$.

100 (D) **The inference definitely does not follow**

Generating 200 GW of alternative output capabilities proves that capacity grew, but provides zero structural evidence that fossil usage was wiped out.

101 (B) **P**

Incremental alpha index sequence jump pattern: +3 steps forward across the alphabet space $\rightarrow$ M $+ 3 =$ P.

102 (A) **Husband**

Common kinship trace: Z is the mother of child Y, whose sibling is the son of X. This establishes X and Z as the male and female parents.

103 (A) **Only I is implicit**

The phrase specifies that effort is a necessary requirement for success (I), but does not mean it guarantees it unconditionally (II).

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

Processing stack rules sequentially generates the unique valid hierarchy from top to bottom: D, A, E, C, B.

105 (A) **13-1-14**

Positional character matrix numbers mapped sequentially match exactly to: M $= 13$, A $=$ 1, N $= 14 \rightarrow$ 13-1-14.

106 (B) **Studies show active individuals have 35% lower heart disease rates**
Option B introduces concrete external data and statistical metrics that directly corroborate and reinforce the cardiorespiratory claim.

107 (C) **Triangle**
The rows systematically cycle through three core structural shape nodes. The missing final element must be a Triangle.

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