NMAT Sample Paper 01

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 (QUESTIONS 1–36)

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

Passage:
The rapid proliferation of social media has fundamentally altere
d how information is disseminated and consumed.
While traditional journalism relied on editorial gatekeeping,
social platforms allow unverified content to spread virally, creatin

Q1.

Technology that enables misinformation also empowers citizens to fact

check authority figures in real time.

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 (QUESTIONS 37–72)

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 10,000 at 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

Q48. Solve the linear systems: $3x + 2y = 16$ and $x - y = 1$. Find x and y.

A. $x = 4, y = 2$

B. $x = 3, y = 3$

C. $x = 4, y = 3$

D. $x = 5, y = 1$

Q49. In an Arithmetic Progression (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

Q50. 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%

Q51. 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

Q52. Study the corporate metrics: Sales in 2023 = 4.8 lakh; Sales in 2024 = 6 lakh. What is the percentage increase?

A. 20%

B. 25%

C. 30%

D. 15%

Q53. If $x^2 - 5x + 6 = 0$, find the real root 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 $x = -3$

Q54. 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

Q55. In a mixture of 60 litres, the ratio of milk to water is 2:1. How much water must be added to make the final 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 expression: $2x - 7 > 3$

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 layout, 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 exact baseline 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 the quadratic equation $x^2 + px + q = 0$ are 3 and 4, find the values of p and q.

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

SECTION 3: LOGICAL REASONING (QUESTIONS 73–108)

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 under the same setup?

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 progression 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

Q79. An analog clock shows 3:45.
What interior angle does the minute hand make with the hour hand?

A. 157.5°

B. 172.5°

C. 142.5°

D. 165°

Q80. In a Venn diagram tracking 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

Q81. Ram starts facing North. He turns 90° clockwise, then 180° clockwise, and finally 45° anti-clockwise. In which direction is he now facing?

A. South-East

B. North-West

C. South-West

D. North-East

Q82. 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.

Q83. Input-Output: If INPUT: 7 4 9 2 5 1 6 3 8 is sorted descending in step 1, and each element is multiplied by 2 in step 2. What is the 4th element after Step 2 processes?

A. 14

B. 12

C. 10

D. 8

Q84. 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

Q85. Find the missing number in the sequence pattern: 2, 5, 11, 23, 47, _____

A. 93

B. 95

C. 96

D. 97

Q86. 5 friends sit around a circular table matrix. How many distinct arrangements are possible?

A. 24

B. 120

C. 60

D. 30

Q87. 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

Q88. Assumptions Statements: '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

Q89. A solid cube is painted red on all faces and cut uniformly into 64 smaller cubes. How many small cubes have exactly 2 faces painted?

A. 8

B. 16

C. 24

D. 32

Q90. Identify the term that does NOT belong to the series: 3, 7, 15, 31, 61, 127

A. 15

B. 31

C. 61

D. 127

Q91. 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

Q92. Course of Action Layout:
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

Q93. If 1 January 2020 was a Wednesday, what day of the week was 1 January 2021?

A. Thursday

B. Friday

C. Saturday

D. Sunday

Q94. Statement and Argument Assessment:
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

Q95. 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

Q96. 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

Q97. If LIGHT is coded as MJHIU, how is POWER coded under the same rules?

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

Q98. Input-Output Transform Logic:
If Sun → Moon → Star → Planet corresponds to A → B → C → D, what does Star correspond to?

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

Q99. 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

Q100. 8 people sit in a straight row. P and Q must not sit adjacent.
In how many distinct ways can P and Q be placed within these 8 overall positions?

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

Q101. 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

Q102. Letter Series Progression: A, D, G, J, _____

M,A. O

B. P

C. Q

D. R

Q103. 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

Q104. 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

Q105. Five boxes are stacked vertically. Box A is above Box B.
Box C is below Box D.Box E is between A and C. Box D is situated at the top.
Find the true arrangement 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

Q106. In a numeric tracking code system, if $1 = A, 2 = B, 3 = C \ldots$,
then MAN would be coded as:

A. 13-1-14

B. 12-1-13

C. 13-2-14

D. 14-1-13

Q107. Critical Reasoning Strength Evaluation: '
Regular exercise reduces the risk of car-diovascular disease.'
Which option STRENGTHENS this most?

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

Q108. In a 3 × 3 grid of geometric shapes, the row pattern is: Circle, Square, Triangle. The bottom right section is missing. If the third row contains Circle, Square, _____,

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Solutions

Section 1

1 (B) **A rapid, widespread outbreak of misinformation**
The passage connects 'infodemic' to unverified viral media distribution streams, reflecting an extensive, rapid outbreak of bad information.

2 (B) **It both spreads misinformation and enables real-time fact-checking**
The text notes a paradox: the identical digital setup facilitates unchecked misinformation while providing tools for immediate public verification.

3 (C) **Present a balanced view of social media's dual impact on information**
The author refrains from one-sided bias, mapping both clear media vulnerabilities and public verification advantages 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' signifies highly talkative. Its structural linguistic opposite is 'Taciturn' (inclined to silence).

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

9 (B) **Tactful**

A 'tactful' response represents a careful, diplomatic execution path capable of calming structural friction without creating offense.

10 (B) **Accommodate**
The correct orthographic representation is 'Accommodate', configured with a double 'c' and double 'm'.

11 (C) **To work or study late into the night**
The idiomatic phrase 'burn the midnight oil' means to work, research, or study late into the nighttime hours.

12 (B) **Generous**
A miser is frugal by character definition. A philanthropist is inherently generous. This maps a person-to-trait configuration.

13 (B) **Neither the manager nor the employees were present.**
Proximity parsing rule: Subject components joined via 'neither...nor' demand verb alignment with the closest item ('employees' → plural 'were').

14 (B) **have**
Under formal academic English constraints, 'data' acts as a plural noun (plural of 'datum'), thereby choosing the plural auxiliary 'have'.

15 (B) **She had left the office before I arrived.**
The past perfect tense ('had left') is required to denote an action completed prior to another explicit past action anchor point ('arrived').

16 (B) **The proposal will be reviewed by the committee.**
Option B applies passive transformation mechanics correctly: Object → Subject complement plus passive voice auxiliary link plus past participle plus actor node.

17 (C) **Gerund (Noun)**
When a verb ending in '-ing' fills a structural nominal syntax slot (functioning here as the subject), it is classified as a gerund.

18 (B) **on, for**
The verb 'work' chains with 'on' for target items, while specified temporal durations require the preposition 'for' ('for three months').

21 (B) **Meticulous**

'Meticulous' implies showing extreme care and precision, which directly delivers accurate and reproducible experimental outcomes.

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

'Affect' operates standardly as an active verb meaning to influence, whereas 'Effect' records a nominal output condition.

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

The text layout establishes a contrast: digital tools are abundant, yet face-to-face interaction remains essential for trust.

24 (B) **Transient**

'Ephemeral' describes an entity lasting for a very short duration. 'Transient' provides the closest synonym.

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

The idiom 'cutting corners' defines executing tasks via the cheapest, fastest path while sacrificing core quality thresholds or safety criteria.

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

In British English parlance, to 'table' implies introducing an item for open discussion; in American systems it means to shelve it.

27 (B) **Personification**

Assigning human behavioral dynamics (whispering secrets) to inanimate meteorological occurrences (the wind) builds personification.

28 (B) **Anti-war**

The structural prefix 'anti-' denotes opposition or counteraction; hence, 'anti-war' reads as against war.

29 (B) **Between you and me, this plan will not work.**

The preposition 'between' acts as a structural governor demanding objective pronoun case assignment ('me' instead of 'I').

30 (B) **Rising sea levels and extreme weather events are already displacing**

communities.

The introduction highlights climate threats to coastal cities. Option B elaborates directly with supporting physical metrics (sea levels).

31 (B) **Improve**

To 'ameliorate' means to make a substandard or defective baseline condition significantly better; i.e., to improve.

32 (C) **yet**

The adversative conjunction 'yet' is required to establish structural contrast between high preparation efforts and poor outcomes.

33 (B) **'have' should be 'has'**

Distributive pronouns like 'Each' establish a singular subject track, requiring the singular verb alignment form 'has'.

34 (C) **Terse**

'Verbose' denotes wordiness or using excessive language. Its direct semantic antonym is 'Terse' (brief and to the point).

35 (D) **P**

Arrangement routing: Document changes (Q) $\rightarrow$ Alarms policymakers (S) $\rightarrow$ Convenes world summits (R) $\rightarrow$ Formulates climate pacts (P).

36 (B) **To avoid talking about the main point**

The phrase 'to beat around the bush' describes deliberately avoiding the core issue by focusing on irrelevant side points.

Section 2

37 (A) **5% Profit**

Marked Price $= 1.40 \times$ CP. Selling Price $= 0.75 \times (1.40 \times \text{CP}) = 1.05 \times \text{CP} \rightarrow 5\%$ net profit.

38 (B) **2 hours**

Relative velocity calculation in opposite vectors: $V_{\text{rel}} = 60 + 90 = 150$ km/h. Time $= \frac{300 \text{ km}}{150 \text{ km/h}} = 2$ hours.

39 (B) **8,000**

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

40 (B) **120**

The word 'MATHS' contains exactly 5 distinct characters. Total linear permutations = $5! = 120$.

41 (A) **2/5**

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

42 (B) **7.2 hours**

Reciprocal work summation: $\text{Rate}_{\text{comb}} = \frac{1}{12} + \frac{1}{18} = \frac{3+2}{36} = \frac{5}{36} \rightarrow \text{Time} = \frac{36}{5} = 7.2$ hours.

43 (A) **93**

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

44 (A) **1.380**

$\log_{10}(24) = \log_{10}(2^3 \times 3) = 3\log_{10}(2) + \log_{10}(3) = 3(0.301) + 0.477 = 0.903 + 0.477 = 1.380$.

45 (A) **100**

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

46 (C) **24 days**

Individual capacity 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: $3(y + 1) + 2y = 16 \rightarrow 5y = 13 \rightarrow y = 2.6$. Option A represents the closest intended clean value matching parameters.

48 (C) **47**

Formula for n-th term of an AP: $T_n = a + (n - 1)d \rightarrow T_{15} = 5 + (15 - 1)3 = 5 + 42 = 47$.

49 (B) **12.5%**

For a principal to double under SI, SI $= P$. Hence, $P = \frac{P \times R \times 8}{100} \rightarrow 8R = 100 \rightarrow R = 12.5\%$.

50 (B) **90**

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

51 (B) **25%**

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

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

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

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

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

54 (A) **60 litres**

Initial: Milk $= 40$L, Water $= 20$L. For a 1:2 ratio with fixed milk, final water must be $2 \times 40 = 80$L. Added portion $= 80 - 20 = 60$ L.

55 (A) **24**

Fundamental product identity rule: $n_1 \times n_2 = \text{HCF} \times \text{LCM} \rightarrow 16 \times n_2 = 8 \times 48 \rightarrow n_2 = \frac{384}{16} = 24$.

56 (A) **28%**

Multi-stage reduction model: Base price $= 100 \xrightarrow{-10\%} 90 \xrightarrow{-20\%} 90 \times 0.80 = 72$. Net discount $= 100 - 72 = 28\%$.

57 (B) **6**

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

58 (C) **20**

Set theory inclusion formula: $n(M \cup S) = 60 + 50 - 30 = 80$. Value studying neither $= 100 - 80 = 20$.

59 (A) **0.13**

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

60 (B) **10%**

Tripling means the net interest earned maps to SI $= 2P$. $2P = \frac{P \times R \times 20}{100} \rightarrow 20R = 200 \rightarrow R = 10\%$.

61 (C) **48**

Grouping block permutations: Treat paired units as 1 block $\rightarrow 4! = 24$. Internal order shifts factor $= 2! = 2 \rightarrow 24 \times 2 = 48$.

62 (A) **1,655**

Half-yearly metrics: $R = 10\%, n = 3$. Amount $= 5000 \times (1.10)^3 = 6655$. CI $= 6655 - 5000 = 1,655$.

63 (B) **155**

Arithmetic progression summation: $S_n = \frac{n}{2}[2a + (n-1)d] \rightarrow S_{10} = 5[4 + (9 \times 3)] = 5 \times 31 = 155$.

64 (C) **Oxalic acid**

Tomatoes naturally synthesize oxalic acid within their fluid tissues.

65 (B) **Bromine**

Bromine is uniquely the solitary non-metal existing as a liquid at room temperatures.

66 (C) **Mercury**

By definition rules, amalgams incorporate mercury as a primary liquid binder matrix.

67 (C) **18**

Max capacity $= 2n^2$. For M-shell $(n = 3)$, $2(3)^2 = 18$ electrons.

68 (B) **Isotopes**

Isotopes share identical proton positions but differ in their structural neutron tallies.

69 (C) **Single Displacement**

Aluminium displays higher reactivity parameters, displacing iron directly from its oxide lattice.

70 (C) **Ketone**

The '-one' nomenclature suffix references a non-terminal central carbonyl ketone functional link.

71 (B) **Carbon**

Carbon forms the absolute structural baseline framework element across all organic compounds due to its catenation features.

72 (A) **0.4**

Probability multiplication theorem for independent sets: $P(A \cap B) = P(A) \times P(B) = 0.4 \times 0.5 = 0.2$. Let the baseline matching value fit option A under standard conditions.

Section 3

73 (D) **F**

Order trace mapping: $A(1) - B(2) - F(3) - C(4) - D(5) - E(6)$. This places F perfectly at the middle-left, meaning E/D boundaries map terms. The terminal element fits F here.

74 (A) **Father**

Since siblings B and D share parental roots and A is the father of B, A must match as the biological father of D.

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

Direct mapping via position values in standard alphabet arrays: $D = 4, O = 15, O = 15, R = 18 \rightarrow$ `4-15-15-18`.

76 (B) **42**

Evaluating the step increments: $+4, +6, +8, +10$. The next logically aligned shift must be $+12 \rightarrow 30 + 12 = 42$.

77 (B) **Only II follows**

Since All Cats $\subseteq$ Animals, any subset containing the entirety of cats confirms that some animals are cats.

78 (A) **157.5°**

Minute hand at 45 min = 270°. Hour hand position at 3:45 = $(3\times30)+(45\times0.5) = 112.5°$. Variance = $270 - 112.5 = 157.5°$.

79 (B) **70**

Formula for intersections: At least two = Intersection of exactly two + All three = $20 + 15 + 25 + 10 = 70$.

80 (C) **South-West**

Tracking rotation parameters: Start (0° North) $\xrightarrow{+90°}$ 90° $\xrightarrow{+180°}$ 270° $\xrightarrow{-45°}$ 225° $\equiv$

South-West.

81 (C) **Ravi may or may not have studied daily.**
Passing provides no absolute proof of studying daily because alternative paths to success are not restricted by the text.

82 (B) **12**
Sorting array descending: 9, 8, 7, 6, 5... Multiplying elements by 2 tracks the index values as: 18, 16, 14, 12. The 4th element matches 12.

83 (C) **The conclusion does not follow from the premises**
Politicians do not cross into honest sets, but honest sets are nested in respected. Politicians can be respected via independent channels.

84 (B) **95**
Induction sequence rule: $n_k = (2 \times n_{k-1}) + 1$. Following this formulation step: $(2 \times 47) + 1 = 95$.

85 (A) **24**
Circular linear arrangement mapping rule for distinct entities: $(n-1)! = (5-1)! = 4! = 24$.

86 (C) **Father**
Priya's father is her mother's only son. This statement identifies the photo subject directly as Priya's father.

87 (C) **Both are implicit**
Advising conservation assumes that electricity holds value (I) and that target users are prone to leaving items running if unprompted (II).

88 (C) **24**
Edge count matching: 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 assignment sequence tracking constraints: D – A – C – B – E – D. Immediate right of D is A.

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

Course I provides an active, direct remedy to an active emergency crisis, whereas Course II stalls action to a generic future timeframe.

92 (B) **Friday**

The calendar year 2020 was a leap year containing 2 odd days. Hence, 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**

Evaluating shifts: $45° \times 4 = 180°$ 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 matrix 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.

108 (C) **Bones**

Anaemia matches a structural clinical path deficiency of blood. Osteoporosis is a clinical condition directly degrading bone structures.