

RRB SECTION CONTROLLER

1000 Original Practice Questions with Answers & Explanations

Prepared by ExamGurux

Important: This book is independently created ExamGurux practice material. The questions are original and are **not** official Railway Recruitment Board questions, previous-year questions, or an RRB publication. The structure is aligned to the official CEN 04/2025 Section Controller CBT syllabus and indicative section distribution. Official pattern: 100 objective questions, 120 minutes, with 1/3 mark negative marking for each wrong answer. Indicative distribution: 60 Analytical & Mathematical Capability, 20 Logical Capability, 20 Mental Reasoning.

Book structure: 10 practice sets x 100 questions = 1000 questions. Each set follows the 60/20/20 distribution and includes answer explanations after the question paper.

Section	Questions per set	Topics represented
Analytical & Mathematical Capability	60	Maths, data analysis/interpretation, data sufficiency
Logical Capability	20	Syllogism, clocks/calendars, blood relations, comprehension, puzzles
Mental Reasoning	20	Analogy, series, coding-decoding, ranking, arrangements

PRACTICE SET 1

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. What is 15% of 960?

- A. 240
- B. 144
- C. 192
- D. 120

2. Two quantities are in the ratio 5:3 and their sum is 64. What is the first quantity?

- A. 37
- B. 40
- C. 45
- D. 24

3. An article costing Rs 800 is sold at a profit of 25%. Find the selling price.

- A. 600
- B. 1080
- C. 1000
- D. 200

4. The average of 8 numbers is 27. If the total of the numbers increases by 16, what is the new average?

- A. 25
- B. 29
- C. 28
- D. 43

5. Find the simple interest on Rs 1500 at 10% per annum for 4 years.

- A. 600
- B. 150
- C. 2100
- D. 640

6. A train moves at 80 km/h for 3.5 hours. How far does it travel?

- A. 280
- B. 200
- C. 83.5
- D. 320

7. A can complete a job in 24 days and B in 40 days. Working together at constant rates, approximately how many days will they take?

- A. 15.00
- B. 32.00
- C. 16.00
- D. 64.00

8. Solve for x: $4x + 16 = 28$.

- A. 12
- B. 2
- C. 3
- D. 4

9. Find the 18th term of the arithmetic progression 12, 17, 22, ...

- A. 98
- B. 92
- C. 102
- D. 97

10. Find the HCF of 8 and 24.

- A. 16
- B. 32
- C. 8
- D. 192

11. A rectangle is 14 cm long and 10 cm wide. What is its area?

- A. 154
- B. 24
- C. 140
- D. 48

12. A bag contains 10 red, 4 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $10/8$
- B. $4/18$
- C. Option 1
- D. $5/9$

13. Find the median of: 19, 39, 42, 45, 56.

- A. 40.2
- B. 42
- C. 39
- D. 45

14. A training centre recorded applicants by region: North=170, South=460, East=460, West=120. Which region had the highest number of applicants?

- A. East
- B. North
- C. South
- D. West

15. What is the value of x? Statement I: $2x = 8$. Statement II: $x^2 = 16$ and x is positive.

- A. Both statements together are required
- B. Statement II alone is sufficient
- C. Statement I alone is sufficient
- D. Either statement alone is sufficient

16. What is 20% of 720?

- A. 144
- B. 216
- C. 180
- D. 126

17. Two quantities are in the ratio 6:5 and their sum is 165. What is the first quantity?

- A. 90
- B. 85
- C. 75
- D. 96

18. An article costing Rs 1000 is sold at a profit of 30%. Find the selling price.

- A. 1300
- B. 1400
- C. 700
- D. 300

19. The average of 9 numbers is 54. If the total of the numbers increases by 54, what is the new average?

- A. 57
- B. 48
- C. 60
- D. 108

20. Find the simple interest on Rs 1500 at 5% per annum for 3 years.

- A. 75
- B. 1725
- C. 240
- D. 225

21. A train moves at 40 km/h for 2.5 hours. How far does it travel?

- A. 100
- B. 60
- C. 42.5
- D. 120

22. A can complete a job in 24 days and B in 20 days. Working together at constant rates, approximately how many days will they take?

- A. 10.91
- B. 4.00
- C. 22.00
- D. 44.00

23. Solve for x: $4x + 13 = 101$.

- A. 88
- B. 22
- C. 23
- D. 21

24. Find the 13th term of the arithmetic progression 11, 17, 23, ...

- A. 77
- B. 84
- C. 83
- D. 89

25. Find the HCF of 14 and 19.

- A. 5
- B. 266
- C. 267
- D. 1

26. A rectangle is 24 cm long and 22 cm wide. What is its area?

- A. 528
- B. 552
- C. 46
- D. 92

27. A bag contains 5 red, 3 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{5}{8}$
- B. Option 1
- C. $\frac{3}{13}$
- D. $\frac{5}{13}$

28. Find the median of: 28, 39, 44, 49, 54.

- A. 42.8
- B. 49
- C. 44
- D. 39

29. A training centre recorded applicants by region: North=390, South=490, East=180, West=180. Which region had the highest number of applicants?

- A. South
- B. East
- C. North
- D. West

30. What is the value of x? Statement I: $2x = 20$. Statement II: $x^2 = 100$ and x is positive.

- A. Both statements together are required
- B. Statement I alone is sufficient
- C. Either statement alone is sufficient
- D. Statement II alone is sufficient

31. What is 40% of 400?

- A. 200
- B. 180
- C. 150
- D. 160

32. Two quantities are in the ratio 8:7 and their sum is 135. What is the first quantity?

- A. 80
- B. 65
- C. 72
- D. 63

33. An article costing Rs 1000 is sold at a profit of 12%. Find the selling price.

- A. 1120
- B. 880
- C. 120
- D. 1220

34. The average of 5 numbers is 22. If the total of the numbers increases by 15, what is the new average?

- A. 37
- B. 19
- C. 23.5
- D. 25

35. Find the simple interest on Rs 1000 at 4% per annum for 2 years.

- A. 1080
- B. 80
- C. 40
- D. 88

36. A train moves at 54 km/h for 3 hours. How far does it travel?

- A. 189
- B. 162
- C. 57
- D. 108

37. A can complete a job in 18 days and B in 48 days. Working together at constant rates, approximately how many days will they take?

- A. 33.00
- B. 13.09
- C. 66.00
- D. 30.00

38. Solve for x: $4x + 18 = 78$.

- A. 15
- B. 16
- C. 60
- D. 14

39. Find the 12th term of the arithmetic progression 5, 12, 19, ...

- A. 75
- B. 83
- C. 82
- D. 89

40. Find the LCM of 10 and 22.

- A. 12
- B. 112
- C. 220
- D. 110

41. A rectangle is 21 cm long and 20 cm wide. What is its area?

- A. 441
- B. 82
- C. 420
- D. 41

42. A bag contains 8 red, 3 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{3}{15}$
- B. $\frac{8}{15}$
- C. $\frac{8}{7}$
- D. $\frac{4}{15}$

43. Find the median of: 20, 35, 38, 47, 52.

- A. 47
- B. 35
- C. 38
- D. 38.4

44. A training centre recorded applicants by region: North=290, South=390, East=190, West=450. Which region had the highest number of applicants?

- A. South
- B. West
- C. East
- D. North

45. What is the value of x ? Statement I: $2x = 36$. Statement II: $x^2 = 324$ and x is positive.

- A. Statement I alone is sufficient
- B. Statement II alone is sufficient
- C. Both statements together are required
- D. Either statement alone is sufficient

46. What is 5% of 240?

- A. 24
- B. 36
- C. 12
- D. 6

47. Two quantities are in the ratio 8:3 and their sum is 198. What is the first quantity?

- A. 141
- B. 54
- C. 152
- D. 144

48. An article costing Rs 1200 is sold at a profit of 12%. Find the selling price.

- A. 1056
- B. 144
- C. 1344
- D. 1464

49. The average of 9 numbers is 19. If the total of the numbers increases by 36, what is the new average?

- A. 55
- B. 23
- C. 15
- D. 21

50. Find the simple interest on Rs 2000 at 4% per annum for 4 years.

- A. 320
- B. 80
- C. 336
- D. 2320

51. A train moves at 72 km/h for 3.5 hours. How far does it travel?

- A. 180
- B. 288
- C. 75.5
- D. 252

52. A can complete a job in 8 days and B in 48 days. Working together at constant rates, approximately how many days will they take?

- A. 28.00
- B. 40.00
- C. 56.00
- D. 6.86

53. Solve for x: $9x + 12 = 84$.

- A. 9
- B. 7
- C. 72
- D. 8

54. Find the 17th term of the arithmetic progression 5, 8, 11, ...

- A. 54
- B. 53
- C. 56
- D. 50

55. Find the HCF of 18 and 10.

- A. 2
- B. 180
- C. 92
- D. 8

56. A rectangle is 19 cm long and 11 cm wide. What is its area?

- A. 228
- B. 209
- C. 60
- D. 30

57. A bag contains 8 red, 9 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{8}{25}$
- B. Option 1
- C. $\frac{8}{17}$
- D. $\frac{9}{25}$

58. Find the median of: 28, 32, 49, 53, 56.

- A. 49
- B. 32
- C. 53
- D. 43.6

59. A training centre recorded applicants by region: North=400, South=320, East=280, West=460. Which region had the highest number of applicants?

- A. North
- B. South
- C. East
- D. West

60. What is the value of x ? Statement I: $2x = 12$. Statement II: $x^2 = 36$ and x is positive.

- A. Both statements together are required
- B. Statement I alone is sufficient
- C. Statement II alone is sufficient
- D. Either statement alone is sufficient

Logical Capability

61. Statements: All pens are trains. All trains are buses. Which conclusion definitely follows?

- A. Some buses are not trains
- B. All buses are pens
- C. No pens is buses
- D. All pens are buses

62. On which day of the week will 20-12-2028 fall?

- A. Monday
- B. Wednesday
- C. Friday
- D. Saturday

63. Hari is the brother of Bala. Bala is the mother of Charan. How is Hari related to Charan?

- A. Brother
- B. Paternal uncle
- C. Maternal uncle
- D. Father

64. A district library extended weekend hours after surveys showed that many working adults could not visit on weekdays. Membership rose over the next quarter, especially among people aged 25 to 45. The library did not change its membership fee during this period.

What most directly explains the rise in membership described?

- A. A lower membership fee
- B. Fewer books being borrowed
- C. More convenient weekend access
- D. Reduced weekday opening hours

65. Four candidates B, A, C, D are ranked from 1st to 4th. B ranks ahead of A, A ranks ahead of C, and C ranks ahead of D. Who ranks first?

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

66. Statements: All planes are trains. All trains are cycles. Which conclusion definitely follows?

- A. No planes is cycles
- B. Some cycles are not trains
- C. All planes are cycles
- D. All cycles are planes

67. What is the smaller angle between the hour and minute hands at 4:10?

- A. 65 degrees
- B. 95 degrees
- C. 35 degrees
- D. 60 degrees

68. Gopal is the brother of Charan. Charan is the mother of Arun. How is Gopal related to Arun?

- A. Father
- B. Paternal uncle
- C. Brother
- D. Maternal uncle

69. Four candidates A, D, C, B are ranked from 1st to 4th. A ranks ahead of D, D ranks ahead of C, and C ranks ahead of B. Who ranks first?

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

70. Statements: All planes are buses. All buses are books. Which conclusion definitely follows?

- A. No planes is books
- B. All planes are books
- C. Some books are not buses
- D. All books are planes

71. On which day of the week will 11-07-2030 fall?

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

72. Gopal is the brother of Esha. Esha is the mother of Charan. How is Gopal related to Charan?

- A. Father
- B. Paternal uncle
- C. Brother
- D. Maternal uncle

73. A college installed rooftop solar panels to reduce daytime electricity purchases. The panels generate the most power around midday, when laboratories and computer rooms are also heavily used. The college still remains connected to the grid for evenings and cloudy periods.

Which statement is best supported by the passage?

- A. Solar output is highest at night
- B. Laboratories are closed at midday
- C. The college never uses grid electricity
- D. Solar generation overlaps with significant daytime demand

74. Four candidates A, C, B, D are ranked from 1st to 4th. A ranks ahead of C, C ranks ahead of B, and B ranks ahead of D. Who ranks first?

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

75. Statements: All trains are boats. All boats are books. Which conclusion definitely follows?

- A. Some books are not boats
- B. No trains is books
- C. All books are trains
- D. All trains are books

76. What is the smaller angle between the hour and minute hands at 1:20?

- A. 110 degrees
- B. 50 degrees
- C. 120 degrees
- D. 80 degrees

77. Deepa is the brother of Hari. Hari is the mother of Arun. How is Deepa related to Arun?

- A. Paternal uncle
- B. Brother
- C. Father
- D. Maternal uncle

78. An online course added short practice quizzes after each lesson. Completion rates improved, but the course designers cautioned that the quizzes alone may not explain the change because reminder emails were introduced at the same time.

Why are the designers cautious about attributing the improvement only to quizzes?

- A. Another change occurred at the same time
- B. The quizzes were removed
- C. The course had no lessons
- D. Completion rates decreased

79. Four candidates B, C, D, A are ranked from 1st to 4th. B ranks ahead of C, C ranks ahead of D, and D ranks ahead of A. Who ranks first?

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

80. Statements: All books are pens. All pens are cars. Which conclusion definitely follows?

- A. All books are cars
- B. Some cars are not pens
- C. All cars are books
- D. No books is cars

Mental Reasoning

81. Book : Read :: Food : ?

- A. Food
- B. Book
- C. Eat
- D. Read

82. Find the next number: 6, 15, 24, 33, 42, ?

- A. 60
- B. 42
- C. 51
- D. 84

83. In a code, each letter is shifted 3 place(s) forward in the alphabet. How is SIGNAL coded?

- A. VLJQDO
- B. WMKREP
- C. LANGIS
- D. PFDKXI

84. In a class of 34 students, Meena is 16th from the top. What is her rank from the bottom?

- A. 18
- B. 16
- C. 19
- D. 20

85. Arrange 11, 71, 92, 53, 19 in ascending order. Which number will be in the middle?

- A. 92
- B. 71
- C. 19
- D. 53

86. Doctor : Hospital :: Teacher : ?

- A. Doctor
- B. School
- C. Hospital
- D. Teacher

87. Find the next number: 8, 15, 22, 29, 36, ?

- A. 43
- B. 72
- C. 50
- D. 36

88. In a code, each letter is shifted 3 place(s) forward in the alphabet. How is TRACK coded?

- A. WUDFN
- B. KCART
- C. QOXZH
- D. XVEGO

89. In a class of 53 students, Meena is 11th from the top. What is her rank from the bottom?

- A. 11
- B. 44
- C. 42
- D. 43

90. Arrange 94, 92, 58, 39, 88 in ascending order. Which number will be in the middle?

- A. 58
- B. 92
- C. 88
- D. 94

91. Find the next number: 20, 26, 32, 38, 44, ?

- A. 44
- B. 88
- C. 50
- D. 56

92. In a code, each letter is shifted 3 place(s) forward in the alphabet. How is TRAIN coded?

- A. QOXFK
- B. XVEMR
- C. WUDLQ
- D. NIART

93. In a class of 44 students, Meena is 25th from the top. What is her rank from the bottom?

- A. 19
- B. 21
- C. 20
- D. 25

94. Arrange 39, 30, 46, 65, 38 in ascending order. Which number will be in the middle?

- A. 65
- B. 38
- C. 46
- D. 39

95. Find the next number: 7, 16, 25, 34, 43, ?

- A. 86
- B. 43
- C. 61
- D. 52

96. In a code, each letter is shifted 2 place(s) forward in the alphabet. How is ROUTE coded?

- A. ETUOR
- B. TQWVG
- C. PMSRC
- D. URXWH

97. In a class of 31 students, Meena is 10th from the top. What is her rank from the bottom?

- A. 23
- B. 21
- C. 22
- D. 10

98. Arrange 59, 28, 26, 71, 22 in ascending order. Which number will be in the middle?

- A. 59
- B. 28
- C. 71
- D. 26

99. Bird : Nest :: Bee : ?

- A. Bee
- B. Nest
- C. Hive
- D. Bird

100. Find the next number: 3, 11, 19, 27, 35, ?

- A. 51
- B. 35
- C. 43
- D. 70

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PRACTICE SET 1 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: B - 144

15% of 960 = $(15/100) \times 960 = 144$.

2. Answer: B - 40

Total parts = 8. First quantity = $5/8 \times 64 = 40$.

3. Answer: C - 1000

SP = CP $\times (100 + \text{profit}\%)/100 = 800 \times 125/100 = \text{Rs } 1000$.

4. Answer: B - 29

Increase in average = increase in total / number of values = $16/8 = 2$. New average = $27+2 = 29$.

5. Answer: A - 600

SI = PRT/100 = $1500 \times 10 \times 4/100 = \text{Rs } 600$.

6. Answer: A - 280

Distance = speed $\times$ time = $80 \times 3.5 = 280 \text{ km}$.

7. Answer: A - 15.00

Combined rate = $1/24 + 1/40$. Time = $1 / \text{combined rate} = 15.00 \text{ days}$.

8. Answer: C - 3

$4x = 12$; therefore $x = 12/4 = 3$.

9. Answer: D - 97

$a_n = a + (n-1)d = 12 + (18-1) \times 5 = 97$.

10. Answer: C - 8

HCF(8,24) = 8; LCM = $(8 \times 24)/8 = 24$. Therefore the required HCF is 8.

11. Answer: C - 140

Area of a rectangle = length $\times$ width = $14 \times 10 = 140 \text{ cm}^2$.

12. Answer: D - 5/9

Probability = favorable outcomes / total outcomes = $10/18 = 5/9$.

13. Answer: B - 42

The values are already ordered. For 5 observations, the median is the 3rd value, which is 42.

14. Answer: C - South

The largest value in the table is 460, corresponding to South.

15. Answer: D - Either statement alone is sufficient

I gives $x=4$. II gives $x=\sqrt{16}=4$ because x is stated positive. Hence either statement alone is sufficient.

16. Answer: A - 144

20% of 720 = $(20/100) \times 720 = 144$.

17. Answer: A - 90

Total parts = 11. First quantity = $6/11 \times 165 = 90$.

18. Answer: A - 1300

SP = CP $\times (100 + \text{profit}\%)/100 = 1000 \times 130/100 = \text{Rs } 1300$.

19. Answer: C - 60

Increase in average = increase in total / number of values = $54/9 = 6$. New average = $54+6 = 60$.

20. Answer: D - 225

SI = PRT/100 = $1500 \times 5 \times 3/100 = \text{Rs } 225$.

21. Answer: A - 100

Distance = speed $\times$ time = $40 \times 2.5 = 100 \text{ km}$.

22. Answer: A - 10.91

Combined rate = $1/24 + 1/20$. Time = $1 / \text{combined rate} = 10.91 \text{ days}$.

23. Answer: B - 22

$4x = 88$; therefore $x = 88/4 = 22$.

24. Answer: C - 83

$$a_n = a + (n-1)d = 11 + (13-1) \times 6 = 83.$$
25. Answer: D - 1

$$\text{HCF}(14,19) = 1; \text{LCM} = (14 \times 19)/1 = 266. \text{ Therefore the required HCF is } 1.$$
26. Answer: A - 528

$$\text{Area of a rectangle} = \text{length} \times \text{width} = 24 \times 22 = 528 \text{ cm}^2.$$
27. Answer: D - 5/13

$$\text{Probability} = \text{favorable outcomes} / \text{total outcomes} = 5/13 = 5/13.$$
28. Answer: C - 44

The values are already ordered. For 5 observations, the median is the 3rd value, which is 44.

29. Answer: A - South

The largest value in the table is 490, corresponding to South.

30. Answer: C - Either statement alone is sufficient

I gives $x=10$. II gives $x=\sqrt{100}=10$ because x is stated positive. Hence either statement alone is sufficient.

31. Answer: D - 160

$$40\% \text{ of } 400 = (40/100) \times 400 = 160.$$
32. Answer: C - 72

$$\text{Total parts} = 15. \text{ First quantity} = 8/15 \times 135 = 72.$$
33. Answer: A - 1120

$$\text{SP} = \text{CP} \times (100 + \text{profit}\%)/100 = 1000 \times 112/100 = \text{Rs } 1120.$$
34. Answer: D - 25

$$\text{Increase in average} = \text{increase in total} / \text{number of values} = 15/5 = 3. \text{ New average} = 22+3 = 25.$$
35. Answer: B - 80

$$\text{SI} = \text{PRT}/100 = 1000 \times 4 \times 2/100 = \text{Rs } 80.$$
36. Answer: B - 162

$$\text{Distance} = \text{speed} \times \text{time} = 54 \times 3 = 162 \text{ km}.$$
37. Answer: B - 13.09

$$\text{Combined rate} = 1/18 + 1/48. \text{ Time} = 1 / \text{combined rate} = 13.09 \text{ days}.$$
38. Answer: A - 15

$$4x = 60; \text{ therefore } x = 60/4 = 15.$$
39. Answer: C - 82

$$a_n = a + (n-1)d = 5 + (12-1) \times 7 = 82.$$
40. Answer: D - 110

$$\text{HCF}(10,22) = 2; \text{LCM} = (10 \times 22)/2 = 110. \text{ Therefore the required LCM is } 110.$$
41. Answer: C - 420

$$\text{Area of a rectangle} = \text{length} \times \text{width} = 21 \times 20 = 420 \text{ cm}^2.$$
42. Answer: B - 8/15

$$\text{Probability} = \text{favorable outcomes} / \text{total outcomes} = 8/15 = 8/15.$$
43. Answer: C - 38

The values are already ordered. For 5 observations, the median is the 3rd value, which is 38.

44. Answer: B - West

The largest value in the table is 450, corresponding to West.

45. Answer: D - Either statement alone is sufficient

I gives $x=18$. II gives $x=\sqrt{324}=18$ because x is stated positive. Hence either statement alone is sufficient.

46. Answer: C - 12

$$5\% \text{ of } 240 = (5/100) \times 240 = 12.$$
47. Answer: D - 144

$$\text{Total parts} = 11. \text{ First quantity} = 8/11 \times 198 = 144.$$
48. Answer: C - 1344

$$\text{SP} = \text{CP} \times (100 + \text{profit}\%)/100 = 1200 \times 112/100 = \text{Rs } 1344.$$

49. Answer: B - 23

Increase in average = increase in total / number of values = $36/9 = 4$. New average = $19+4 = 23$.

50. Answer: A - 320

SI = $PRT/100 = 2000 \times 4 \times 4/100 = \text{Rs } 320$.

51. Answer: D - 252

Distance = speed $\times$ time = $72 \times 3.5 = 252 \text{ km}$.

52. Answer: D - 6.86

Combined rate = $1/8 + 1/48$. Time = $1 / \text{combined rate} = 6.86 \text{ days}$.

53. Answer: D - 8

$9x = 72$; therefore $x = 72/9 = 8$.

54. Answer: B - 53

$a_n = a + (n-1)d = 5 + (17-1) \times 3 = 53$.

55. Answer: A - 2

$\text{HCF}(18,10) = 2$; $\text{LCM} = (18 \times 10)/2 = 90$. Therefore the required HCF is 2.

56. Answer: B - 209

Area of a rectangle = length $\times$ width = $19 \times 11 = 209 \text{ cm}^2$.

57. Answer: A - 8/25

Probability = favorable outcomes / total outcomes = $8/25 = 8/25$.

58. Answer: A - 49

The values are already ordered. For 5 observations, the median is the 3rd value, which is 49.

59. Answer: D - West

The largest value in the table is 460, corresponding to West.

60. Answer: D - Either statement alone is sufficient

I gives $x=6$. II gives $x=\sqrt{36}=6$ because x is stated positive. Hence either statement alone is sufficient.

Logical Capability**61. Answer: D - All pens are buses**

If every pens belongs to trains, and every trains belongs to buses, then every pens must also belong to buses.

62. Answer: B - Wednesday

Using standard calendar day calculation, 20-12-2028 falls on Wednesday.

63. Answer: C - Maternal uncle

Hari is the brother of Charan's mother, so Hari is Charan's maternal uncle.

64. Answer: C - More convenient weekend access

The passage links the change to extended weekend hours and notes that fees did not change.

65. Answer: A - B

The statements form the complete order $B > A > C > D$, so B is first.

66. Answer: C - All planes are cycles

If every planes belongs to trains, and every trains belongs to cycles, then every planes must also belong to cycles.

67. Answer: A - 65 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 65 degrees.

68. Answer: D - Maternal uncle

Gopal is the brother of Arun's mother, so Gopal is Arun's maternal uncle.

69. Answer: B - A

The statements form the complete order $A > D > C > B$, so A is first.

70. Answer: B - All planes are books

If every planes belongs to buses, and every buses belongs to books, then every planes must also belong to books.

71. Answer: D - Thursday

Using standard calendar day calculation, 11-07-2030 falls on Thursday.

72. Answer: D - Maternal uncle

Gopal is the brother of Charan's mother, so Gopal is Charan's maternal uncle.

73. Answer: D - Solar generation overlaps with significant daytime demand

The passage states that solar generation peaks around midday and that laboratories and computer rooms are heavily used then.

74. Answer: A - A

The statements form the complete order $A > C > B > D$, so A is first.

75. Answer: D - All trains are books

If every trains belongs to boats, and every boats belongs to books, then every trains must also belong to books.

76. Answer: D - 80 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 80 degrees.

77. Answer: D - Maternal uncle

Deepa is the brother of Arun's mother, so Deepa is Arun's maternal uncle.

78. Answer: A - Another change occurred at the same time

Reminder emails were introduced simultaneously, so the effect cannot be isolated to quizzes alone.

79. Answer: B - B

The statements form the complete order $B > C > D > A$, so B is first.

80. Answer: A - All books are cars

If every books belongs to pens, and every pens belongs to cars, then every books must also belong to cars.

Mental Reasoning

81. Answer: C - Eat

The relationship in the first pair is the same as in the second: Book is related to Read as Food is related to Eat.

82. Answer: C - 51

The series increases by 9 each time, so the next term is $42 + 9 = 51$.

83. Answer: A - VLJQDO

Shift every letter of SIGNAL forward by 3. This gives VLJQDO.

84. Answer: C - 19

Rank from bottom = total - rank from top + 1 = $34 - 16 + 1 = 19$.

85. Answer: D - 53

Ascending order is 11, 19, 53, 71, 92; the middle (3rd) number is 53.

86. Answer: B - School

The relationship in the first pair is the same as in the second: Doctor is related to Hospital as Teacher is related to School.

87. Answer: A - 43

The series increases by 7 each time, so the next term is $36 + 7 = 43$.

88. Answer: A - WUDFN

Shift every letter of TRACK forward by 3. This gives WUDFN.

89. Answer: D - 43

Rank from bottom = total - rank from top + 1 = $53 - 11 + 1 = 43$.

90. Answer: C - 88

Ascending order is 39, 58, 88, 92, 94; the middle (3rd) number is 88.

91. Answer: C - 50

The series increases by 6 each time, so the next term is $44 + 6 = 50$.

92. Answer: C - WUDLQ

Shift every letter of TRAIN forward by 3. This gives WUDLQ.

93. Answer: C - 20

Rank from bottom = total - rank from top + 1 = $44 - 25 + 1 = 20$.

94. Answer: D - 39

Ascending order is 30, 38, 39, 46, 65; the middle (3rd) number is 39.

95. Answer: D - 52

The series increases by 9 each time, so the next term is $43 + 9 = 52$.

96. Answer: B - TQWVG

Shift every letter of ROUTE forward by 2. This gives TQWVG.

97. Answer: C - 22

Rank from bottom = total - rank from top + 1 = $31 - 10 + 1 = 22$.

98. Answer: B - 28

Ascending order is 22, 26, 28, 59, 71; the middle (3rd) number is 28.

99. Answer: C - Hive

The relationship in the first pair is the same as in the second: Bird is related to Nest as Bee is related to Hive.

100. Answer: C - 43

The series increases by 8 each time, so the next term is $35 + 8 = 43$.

EXAMGURUX

PRACTICE SET 2

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. What is 25% of 720?

- A. 216
- B. 162
- C. 180
- D. 252

2. Two quantities are in the ratio 9:4 and their sum is 117. What is the first quantity?

- A. 36
- B. 90
- C. 81
- D. 77

3. An article costing Rs 400 is sold at a profit of 10%. Find the selling price.

- A. 440
- B. 40
- C. 360
- D. 480

4. The average of 10 numbers is 46. If the total of the numbers increases by 80, what is the new average?

- A. 126
- B. 54
- C. 38
- D. 50

5. Find the simple interest on Rs 3000 at 10% per annum for 2 years.

- A. 3600
- B. 600
- C. 620
- D. 300

6. A train moves at 54 km/h for 4 hours. How far does it travel?

- A. 216
- B. 162
- C. 58
- D. 243

7. A can complete a job in 18 days and B in 20 days. Working together at constant rates, approximately how many days will they take?

- A. 2.00
- B. 38.00
- C. 9.47
- D. 19.00

8. Solve for x: $8x + 8 = 56$.

- A. 48
- B. 6
- C. 7
- D. 5

9. Find the 20th term of the arithmetic progression 14, 21, 28, ...

- A. 147
- B. 140
- C. 154
- D. 148

10. Find the LCM of 16 and 21.

- A. 338
- B. 5
- C. 337
- D. 336

11. A rectangle is 10 cm long and 8 cm wide. What is its area?

- A. 18
- B. 36
- C. 80
- D. 90

12. A bag contains 5 red, 8 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $8/16$
- B. $3/16$
- C. $5/16$
- D. $5/11$

13. Find the median of: 15, 22, 28, 40, 48.

- A. 40
- B. 22
- C. 28
- D. 30.6

14. A training centre recorded applicants by region: North=420, South=370, East=160, West=450. Which region had the highest number of applicants?

- A. North
- B. South
- C. East
- D. West

15. What is 35% of 400?

- A. 140
- B. 130
- C. 180
- D. 160

16. Two quantities are in the ratio 7:2 and their sum is 108. What is the first quantity?

- A. 82
- B. 84
- C. 24
- D. 91

17. An article costing Rs 1200 is sold at a profit of 25%. Find the selling price.

- A. 300
- B. 1620
- C. 1500
- D. 900

18. The average of 7 numbers is 35. If the total of the numbers increases by 28, what is the new average?

- A. 63
- B. 37
- C. 31
- D. 39

19. Find the simple interest on Rs 3000 at 10% per annum for 4 years.

- A. 1200
- B. 4200
- C. 300
- D. 1240

20. A train moves at 36 km/h for 2.5 hours. How far does it travel?

- A. 90
- B. 108
- C. 38.5
- D. 54

21. A can complete a job in 10 days and B in 30 days. Working together at constant rates, approximately how many days will they take?

- A. 20.00
- B. 8.5
- C. 40.00
- D. 7.50

22. Solve for x: $9x + 20 = 119$.

- A. 99
- B. 11
- C. 12
- D. 10

23. Find the 17th term of the arithmetic progression 15, 20, 25, ...

- A. 95
- B. 90
- C. 96
- D. 100

24. Find the HCF of 20 and 18.

- A. 2
- B. 3
- C. 360
- D. 182

25. A rectangle is 16 cm long and 7 cm wide. What is its area?

- A. 112
- B. 23
- C. 128
- D. 46

26. A bag contains 9 red, 10 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{3}{22}$
- B. $\frac{10}{22}$
- C. $\frac{9}{22}$
- D. $\frac{9}{13}$

27. Find the median of: 13, 17, 42, 46, 51.

- A. 42
- B. 17
- C. 46
- D. 33.8

28. A training centre recorded applicants by region: North=160, South=460, East=310, West=190. Which region had the highest number of applicants?

- A. East
- B. South
- C. West
- D. North

29. What is 25% of 400?

- A. 140
- B. 120
- C. 100
- D. 90

30. Two quantities are in the ratio 2:7 and their sum is 108. What is the first quantity?

- A. 17
- B. 26
- C. 84
- D. 24

31. An article costing Rs 800 is sold at a profit of 20%. Find the selling price.

- A. 1040
- B. 160
- C. 640
- D. 960

32. The average of 8 numbers is 30. If the total of the numbers increases by 40, what is the new average?

- A. 32.5
- B. 25
- C. 35
- D. 70

33. Find the simple interest on Rs 2500 at 4% per annum for 5 years.

- A. 500
- B. 520
- C. 3000
- D. 100

34. A train moves at 40 km/h for 3 hours. How far does it travel?

- A. 140
- B. 43
- C. 80
- D. 120

35. Solve for x: $3x + 12 = 84$.

- A. 23
- B. 25
- C. 24
- D. 72

36. Find the 9th term of the arithmetic progression 4, 6, 8, ...

- A. 21
- B. 22
- C. 20
- D. 18

37. Find the LCM of 15 and 13.

- A. 197
- B. 195
- C. 196
- D. 2

38. A rectangle is 21 cm long and 7 cm wide. What is its area?

- A. 168
- B. 28
- C. 147
- D. 56

39. A bag contains 9 red, 9 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. Option 1
- B. $9/20$
- C. $9/11$
- D. $2/20$

40. Find the median of: 19, 22, 27, 30, 50.

- A. 29.6
- B. 27
- C. 22
- D. 30

41. A training centre recorded applicants by region: North=230, South=380, East=190, West=230. Which region had the highest number of applicants?

- A. West
- B. North
- C. South
- D. East

42. What is the value of x ? Statement I: $2x = 6$. Statement II: $x^2 = 9$ and x is positive.

- A. Statement I alone is sufficient
- B. Both statements together are required
- C. Statement II alone is sufficient
- D. Either statement alone is sufficient

43. What is 10% of 960?

- A. 144
- B. 72
- C. 192
- D. 96

44. Two quantities are in the ratio 7:5 and their sum is 132. What is the first quantity?

- A. 72
- B. 77
- C. 84
- D. 55

45. An article costing Rs 400 is sold at a profit of 15%. Find the selling price.

- A. 60
- B. 340
- C. 460
- D. 500

46. The average of 9 numbers is 18. If the total of the numbers increases by 72, what is the new average?

- A. 10
- B. 26
- C. 22
- D. 90

47. Find the simple interest on Rs 1500 at 8% per annum for 4 years.

- A. 512
- B. 1980
- C. 480
- D. 120

48. A can complete a job in 18 days and B in 12 days. Working together at constant rates, approximately how many days will they take?
- A. 30.00
 - B. 6.00
 - C. 15.00
 - D. 7.20
49. Solve for x: $7x + 14 = 35$.
- A. 4
 - B. 2
 - C. 21
 - D. 3
50. Find the 11th term of the arithmetic progression 9, 13, 17, ...
- A. 49
 - B. 45
 - C. 53
 - D. 50
51. Find the LCM of 18 and 14.
- A. 126
 - B. 128
 - C. 4
 - D. 252
52. A rectangle is 25 cm long and 19 cm wide. What is its area?
- A. 475
 - B. 500
 - C. 88
 - D. 44
53. A bag contains 7 red, 5 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?
- A. $\frac{7}{16}$
 - B. $\frac{7}{9}$
 - C. $\frac{5}{16}$
 - D. $\frac{4}{16}$
54. Find the median of: 11, 15, 20, 30, 37.
- A. 30
 - B. 20
 - C. 15
 - D. 22.6

55. A training centre recorded applicants by region: North=320, South=260, East=290, West=450. Which region had the highest number of applicants?

- A. North
- B. West
- C. South
- D. East

56. What is the value of x ? Statement I: $2x = 26$. Statement II: $x^2 = 169$ and x is positive.

- A. Statement I alone is sufficient
- B. Both statements together are required
- C. Either statement alone is sufficient
- D. Statement II alone is sufficient

57. What is 12.5% of 800?

- A. 80
- B. 180
- C. 140
- D. 100

58. Two quantities are in the ratio 7:6 and their sum is 273. What is the first quantity?

- A. 141
- B. 126
- C. 154
- D. 147

59. An article costing Rs 800 is sold at a profit of 12%. Find the selling price.

- A. 976
- B. 896
- C. 704
- D. 96

60. The average of 6 numbers is 38. If the total of the numbers increases by 12, what is the new average?

- A. 50
- B. 40
- C. 36
- D. 39

Logical Capability

61. On which day of the week will 06-12-2031 fall?

- A. Tuesday
- B. Saturday
- C. Friday
- D. Sunday

62. Deepa is the brother of Gopal. Gopal is the mother of Farah. How is Deepa related to Farah?

- A. Father
- B. Brother
- C. Paternal uncle
- D. Maternal uncle

63. A city introduced a timed-transfer system between suburban trains and feeder buses. The aim was not to increase vehicle speed, but to reduce the waiting time passengers faced when changing modes. After three months, average transfer waiting time fell, while total travel distance remained unchanged. According to the passage, what was the main purpose of the timed-transfer system?

- A. To reduce the number of buses
- B. To reduce waiting time during transfers
- C. To shorten travel distance
- D. To increase train speed

64. Statements: All cycles are boats. All boats are pens. Which conclusion definitely follows?

- A. All cycles are pens
- B. No cycles is pens
- C. All pens are cycles
- D. Some pens are not boats

65. What is the smaller angle between the hour and minute hands at 3:20?

- A. 20 degrees
- B. 10 degrees
- C. 120 degrees
- D. 50 degrees

66. Charan is the brother of Deepa. Deepa is the mother of Esha. How is Charan related to Esha?

- A. Maternal uncle
- B. Father
- C. Brother
- D. Paternal uncle

67. Four candidates A, C, D, B are ranked from 1st to 4th. A ranks ahead of C, C ranks ahead of D, and D ranks ahead of B. Who ranks first?

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

68. Statements: All planes are cycles. All cycles are trains. Which conclusion definitely follows?

- A. All trains are planes
- B. No planes is trains
- C. Some trains are not cycles
- D. All planes are trains

69. On which day of the week will 08-02-2032 fall?

- A. Tuesday
- B. Sunday
- C. Saturday
- D. Friday

70. Arun is the brother of Hari. Hari is the mother of Charan. How is Arun related to Charan?

- A. Brother
- B. Maternal uncle
- C. Father
- D. Paternal uncle

71. Four candidates A, B, D, C are ranked from 1st to 4th. A ranks ahead of B, B ranks ahead of D, and D ranks ahead of C. Who ranks first?

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

72. Statements: All pens are cycles. All cycles are trains. Which conclusion definitely follows?

- A. No pens is trains
- B. Some trains are not cycles
- C. All trains are pens
- D. All pens are trains

73. What is the smaller angle between the hour and minute hands at 10:30?

- A. 165 degrees
- B. 105 degrees
- C. 0 degrees
- D. 135 degrees

74. Deepa is the brother of Arun. Arun is the mother of Gopal. How is Deepa related to Gopal?

- A. Brother
- B. Father
- C. Maternal uncle
- D. Paternal uncle

75. Four candidates C, D, B, A are ranked from 1st to 4th. C ranks ahead of D, D ranks ahead of B, and B ranks ahead of A. Who ranks first?

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

76. Statements: All trains are buses. All buses are planes. Which conclusion definitely follows?

- A. No trains is planes
- B. Some planes are not buses
- C. All trains are planes
- D. All planes are trains

77. On which day of the week will 11-06-2029 fall?

- A. Friday
- B. Tuesday
- C. Monday
- D. Saturday

78. Arun is the brother of Charan. Charan is the mother of Gopal. How is Arun related to Gopal?

- A. Paternal uncle
- B. Father
- C. Maternal uncle
- D. Brother

79. Four candidates C, A, B, D are ranked from 1st to 4th. C ranks ahead of A, A ranks ahead of B, and B ranks ahead of D. Who ranks first?

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

80. Statements: All trains are books. All books are boats. Which conclusion definitely follows?

- A. No trains is boats
- B. All boats are trains
- C. Some boats are not books
- D. All trains are boats

Mental Reasoning

81. In a code, each letter is shifted 3 place(s) forward in the alphabet. How is RAIL coded?

- A. VEMP
- B. OXFI
- C. UDLO
- D. LIAR

82. In a class of 39 students, Meena is 22th from the top. What is her rank from the bottom?

- A. 17
- B. 18
- C. 19
- D. 22

83. Arrange 84, 87, 67, 66, 62 in ascending order. Which number will be in the middle?

- A. 87
- B. 67
- C. 66
- D. 84

84. Find the next number: 9, 17, 25, 33, 41, ?

- A. 57
- B. 41
- C. 49
- D. 82

85. In a code, each letter is shifted 2 place(s) forward in the alphabet. How is RAIL coded?

- A. UDLO
- B. LIAR
- C. TCKN
- D. PYGJ

86. In a class of 25 students, Meena is 6th from the top. What is her rank from the bottom?

- A. 20
- B. 19
- C. 21
- D. 6

87. Arrange 76, 50, 56, 18, 60 in ascending order. Which number will be in the middle?

- A. 56
- B. 50
- C. 60
- D. 76

88. Find the next number: 7, 10, 13, 16, 19, ?

- A. 25
- B. 19
- C. 22
- D. 38

89. In a code, each letter is shifted 1 place(s) forward in the alphabet. How is CABIN coded?

- A. BZAHM
- B. NIBAC
- C. ECDKP
- D. DBCJO

90. In a class of 60 students, Meena is 39th from the top. What is her rank from the bottom?

- A. 21
- B. 23
- C. 39
- D. 22

91. Arrange 81, 45, 77, 80, 33 in ascending order. Which number will be in the middle?

- A. 45
- B. 77
- C. 80
- D. 81

92. Puppy : Dog :: Kitten : ?

- A. Cat
- B. Dog
- C. Kitten
- D. Puppy

93. Find the next number: 12, 14, 16, 18, 20, ?

- A. 22
- B. 20
- C. 24
- D. 40

94. In a code, each letter is shifted 2 place(s) forward in the alphabet. How is TRACK coded?

- A. VTCEM
- B. KCART
- C. WUDFN
- D. RPYAI

95. In a class of 27 students, Meena is 13th from the top. What is her rank from the bottom?

- A. 14
- B. 16
- C. 13
- D. 15

96. Arrange 45, 12, 14, 79, 53 in ascending order. Which number will be in the middle?

- A. 14
- B. 45
- C. 53
- D. 79

97. Find the next number: 11, 20, 29, 38, 47, ?

- A. 56
- B. 94
- C. 47
- D. 65

98. In a code, each letter is shifted 1 place(s) forward in the alphabet. How is ROUTE coded?

- A. TQWVG
- B. QNTSD
- C. SPVUF
- D. ETUOR

99. In a class of 36 students, Meena is 25th from the top. What is her rank from the bottom?

- A. 13
- B. 11
- C. 12
- D. 25

100. Arrange 52, 91, 19, 90, 61 in ascending order. Which number will be in the middle?

- A. 90
- B. 91
- C. 52
- D. 61

PRACTICE SET 2 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: C - 180

25% of 720 = $(25/100) \times 720 = 180$.

2. Answer: C - 81

Total parts = 13. First quantity = $9/13 \times 117 = 81$.

3. Answer: A - 440

SP = CP $\times (100 + \text{profit\%})/100 = 400 \times 110/100 = \text{Rs } 440$.

4. Answer: B - 54

Increase in average = increase in total / number of values = $80/10 = 8$. New average = $46+8 = 54$.

5. Answer: B - 600

SI = PRT/100 = $3000 \times 10 \times 2/100 = \text{Rs } 600$.

6. Answer: A - 216

Distance = speed $\times$ time = $54 \times 4 = 216 \text{ km}$.

7. Answer: C - 9.47

Combined rate = $1/18 + 1/20$. Time = $1 / \text{combined rate} = 9.47 \text{ days}$.

8. Answer: B - 6

$8x = 48$; therefore $x = 48/8 = 6$.

9. Answer: A - 147

$a_n = a + (n-1)d = 14 + (20-1) \times 7 = 147$.

10. Answer: D - 336

$\text{HCF}(16,21) = 1$; $\text{LCM} = (16 \times 21)/1 = 336$. Therefore the required LCM is 336.

11. Answer: C - 80

Area of a rectangle = length $\times$ width = $10 \times 8 = 80 \text{ cm}^2$.

12. Answer: C - 5/16

Probability = favorable outcomes / total outcomes = $5/16 = 5/16$.

13. Answer: C - 28

The values are already ordered. For 5 observations, the median is the 3rd value, which is 28.

14. Answer: D - West

The largest value in the table is 450, corresponding to West.

15. Answer: A - 140

35% of 400 = $(35/100) \times 400 = 140$.

16. Answer: B - 84

Total parts = 9. First quantity = $7/9 \times 108 = 84$.

17. Answer: C - 1500

SP = CP $\times (100 + \text{profit\%})/100 = 1200 \times 125/100 = \text{Rs } 1500$.

18. Answer: D - 39

Increase in average = increase in total / number of values = $28/7 = 4$. New average = $35+4 = 39$.

19. Answer: A - 1200

SI = PRT/100 = $3000 \times 10 \times 4/100 = \text{Rs } 1200$.

20. Answer: A - 90

Distance = speed $\times$ time = $36 \times 2.5 = 90 \text{ km}$.

21. Answer: D - 7.50

Combined rate = $1/10 + 1/30$. Time = $1 / \text{combined rate} = 7.50 \text{ days}$.

22. Answer: B - 11

$9x = 99$; therefore $x = 99/9 = 11$.

23. Answer: A - 95

$a_n = a + (n-1)d = 15 + (17-1) \times 5 = 95$.

24. Answer: A - 2

$HCF(20,18) = 2$; $LCM = (20 \times 18)/2 = 180$. Therefore the required HCF is 2.

25. Answer: A - 112

Area of a rectangle = length $\times$ width = $16 \times 7 = 112 \text{ cm}^2$.

26. Answer: C - 9/22

Probability = favorable outcomes / total outcomes = $9/22 = 9/22$.

27. Answer: A - 42

The values are already ordered. For 5 observations, the median is the 3rd value, which is 42.

28. Answer: B - South

The largest value in the table is 460, corresponding to South.

29. Answer: C - 100

25% of 400 = $(25/100) \times 400 = 100$.

30. Answer: D - 24

Total parts = 9. First quantity = $2/9 \times 108 = 24$.

31. Answer: D - 960

$SP = CP \times (100 + \text{profit}\%)/100 = 800 \times 120/100 = \text{Rs } 960$.

32. Answer: C - 35

Increase in average = increase in total / number of values = $40/8 = 5$. New average = $30+5 = 35$.

33. Answer: A - 500

$SI = PRT/100 = 2500 \times 4 \times 5/100 = \text{Rs } 500$.

34. Answer: D - 120

Distance = speed $\times$ time = $40 \times 3 = 120 \text{ km}$.

35. Answer: C - 24

$3x = 72$; therefore $x = 72/3 = 24$.

36. Answer: C - 20

$a_n = a + (n-1)d = 4 + (9-1) \times 2 = 20$.

37. Answer: B - 195

$HCF(15,13) = 1$; $LCM = (15 \times 13)/1 = 195$. Therefore the required LCM is 195.

38. Answer: C - 147

Area of a rectangle = length $\times$ width = $21 \times 7 = 147 \text{ cm}^2$.

39. Answer: B - 9/20

Probability = favorable outcomes / total outcomes = $9/20 = 9/20$.

40. Answer: B - 27

The values are already ordered. For 5 observations, the median is the 3rd value, which is 27.

41. Answer: C - South

The largest value in the table is 380, corresponding to South.

42. Answer: D - Either statement alone is sufficient

I gives $x=3$. II gives $x=\sqrt{9}=3$ because x is stated positive. Hence either statement alone is sufficient.

43. Answer: D - 96

10% of 960 = $(10/100) \times 960 = 96$.

44. Answer: B - 77

Total parts = 12. First quantity = $7/12 \times 132 = 77$.

45. Answer: C - 460

$SP = CP \times (100 + \text{profit}\%)/100 = 400 \times 115/100 = \text{Rs } 460$.

46. Answer: B - 26

Increase in average = increase in total / number of values = $72/9 = 8$. New average = $18+8 = 26$.

47. Answer: C - 480

$SI = PRT/100 = 1500 \times 8 \times 4/100 = \text{Rs } 480$.

48. Answer: D - 7.20

Combined rate = $1/18 + 1/12$. Time = $1 / \text{combined rate} = 7.20 \text{ days}$.

49. Answer: D - 3

$7x = 21$; therefore $x = 21/7 = 3$.

50. Answer: A - 49

$a_n = a + (n-1)d = 9 + (11-1) \times 4 = 49$.

51. Answer: A - 126

$HCF(18,14) = 2$; $LCM = (18 \times 14)/2 = 126$. Therefore the required LCM is 126.

52. Answer: A - 475

Area of a rectangle = length $\times$ width = $25 \times 19 = 475 \text{ cm}^2$.

53. Answer: A - 7/16

Probability = favorable outcomes / total outcomes = $7/16 = 7/16$.

54. Answer: B - 20

The values are already ordered. For 5 observations, the median is the 3rd value, which is 20.

55. Answer: B - West

The largest value in the table is 450, corresponding to West.

56. Answer: C - Either statement alone is sufficient

I gives $x=13$. II gives $x=\sqrt{169}=13$ because x is stated positive. Hence either statement alone is sufficient.

57. Answer: D - 100

12.5% of 800 = $(12.5/100) \times 800 = 100$.

58. Answer: D - 147

Total parts = 13. First quantity = $7/13 \times 273 = 147$.

59. Answer: B - 896

$SP = CP \times (100 + \text{profit}\%)/100 = 800 \times 112/100 = \text{Rs } 896$.

60. Answer: B - 40

Increase in average = increase in total / number of values = $12/6 = 2$. New average = $38+2 = 40$.

Logical Capability**61. Answer: B - Saturday**

Using standard calendar day calculation, 06-12-2031 falls on Saturday.

62. Answer: D - Maternal uncle

Deepa is the brother of Farah's mother, so Deepa is Farah's maternal uncle.

63. Answer: B - To reduce waiting time during transfers

The passage explicitly says the aim was to reduce waiting time when passengers changed modes.

64. Answer: A - All cycles are pens

If every cycles belongs to boats, and every boats belongs to pens, then every cycles must also belong to pens.

65. Answer: A - 20 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 20 degrees.

66. Answer: A - Maternal uncle

Charan is the brother of Esha's mother, so Charan is Esha's maternal uncle.

67. Answer: B - A

The statements form the complete order $A > C > D > B$, so A is first.

68. Answer: D - All planes are trains

If every planes belongs to cycles, and every cycles belongs to trains, then every planes must also belong to trains.

69. Answer: B - Sunday

Using standard calendar day calculation, 08-02-2032 falls on Sunday.

70. Answer: B - Maternal uncle

Arun is the brother of Charan's mother, so Arun is Charan's maternal uncle.

71. Answer: A - A

The statements form the complete order $A > B > D > C$, so A is first.

72. Answer: D - All pens are trains

If every pens belongs to cycles, and every cycles belongs to trains, then every pens must also belong to trains.

73. Answer: D - 135 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 135 degrees.

74. Answer: C - Maternal uncle

Deepa is the brother of Gopal's mother, so Deepa is Gopal's maternal uncle.

75. Answer: C - C

The statements form the complete order $C > D > B > A$, so C is first.

76. Answer: C - All trains are planes

If every trains belongs to buses, and every buses belongs to planes, then every trains must also belong to planes.

77. Answer: C - Monday

Using standard calendar day calculation, 11-06-2029 falls on Monday.

78. Answer: C - Maternal uncle

Arun is the brother of Gopal's mother, so Arun is Gopal's maternal uncle.

79. Answer: B - C

The statements form the complete order $C > A > B > D$, so C is first.

80. Answer: D - All trains are boats

If every trains belongs to books, and every books belongs to boats, then every trains must also belong to boats.

Mental Reasoning**81. Answer: C - UDLO**

Shift every letter of RAIL forward by 3. This gives UDLO.

82. Answer: B - 18

Rank from bottom = total - rank from top + 1 = $39 - 22 + 1 = 18$.

83. Answer: B - 67

Ascending order is 62, 66, 67, 84, 87; the middle (3rd) number is 67.

84. Answer: C - 49

The series increases by 8 each time, so the next term is $41 + 8 = 49$.

85. Answer: C - TCKN

Shift every letter of RAIL forward by 2. This gives TCKN.

86. Answer: A - 20

Rank from bottom = total - rank from top + 1 = $25 - 6 + 1 = 20$.

87. Answer: A - 56

Ascending order is 18, 50, 56, 60, 76; the middle (3rd) number is 56.

88. Answer: C - 22

The series increases by 3 each time, so the next term is $19 + 3 = 22$.

89. Answer: D - DBCJO

Shift every letter of CABIN forward by 1. This gives DBCJO.

90. Answer: D - 22

Rank from bottom = total - rank from top + 1 = $60 - 39 + 1 = 22$.

91. Answer: B - 77

Ascending order is 33, 45, 77, 80, 81; the middle (3rd) number is 77.

92. Answer: A - Cat

The relationship in the first pair is the same as in the second: Puppy is related to Dog as Kitten is related to Cat.

93. Answer: A - 22

The series increases by 2 each time, so the next term is $20 + 2 = 22$.

94. Answer: A - VTCEM

Shift every letter of TRACK forward by 2. This gives VTCEM.

95. Answer: D - 15

Rank from bottom = total - rank from top + 1 = $27 - 13 + 1 = 15$.

96. Answer: B - 45

Ascending order is 12, 14, 45, 53, 79; the middle (3rd) number is 45.

97. Answer: A - 56

The series increases by 9 each time, so the next term is $47 + 9 = 56$.

98. Answer: C - SPVUF

Shift every letter of ROUTE forward by 1. This gives SPVUF.

99. Answer: C - 12

Rank from bottom = total - rank from top + 1 = $36 - 25 + 1 = 12$.

100. Answer: D - 61

Ascending order is 19, 52, 61, 90, 91; the middle (3rd) number is 61.

EXAMGURUX

PRACTICE SET 3

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. Find the simple interest on Rs 5000 at 10% per annum for 2 years.

- A. 500
- B. 6000
- C. 1020
- D. 1000

2. A can complete a job in 6 days and B in 30 days. Working together at constant rates, approximately how many days will they take?

- A. 18.00
- B. 36.00
- C. 24.00
- D. 5.00

3. Solve for x: $6x + 20 = 146$.

- A. 21
- B. 126
- C. 20
- D. 22

4. Find the 15th term of the arithmetic progression 14, 20, 26, ...

- A. 92
- B. 99
- C. 104
- D. 98

5. Find the HCF of 17 and 16.

- A. 2
- B. 273
- C. 272
- D. 1

6. A rectangle is 20 cm long and 7 cm wide. What is its area?

- A. 160
- B. 54
- C. 140
- D. 27

7. A bag contains 3 red, 9 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{9}{20}$
- B. $\frac{8}{20}$
- C. $\frac{3}{17}$
- D. $\frac{3}{20}$

8. Find the median of: 15, 20, 28, 39, 52.

- A. 20
- B. 39
- C. 28
- D. 30.8

9. A training centre recorded applicants by region: North=470, South=500, East=270, West=380. Which region had the highest number of applicants?

- A. East
- B. South
- C. North
- D. West

10. What is 40% of 1200?

- A. 540
- B. 600
- C. 450
- D. 480

11. Two quantities are in the ratio 3:4 and their sum is 133. What is the first quantity?

- A. 53
- B. 76
- C. 60
- D. 57

12. The average of 9 numbers is 20. If the total of the numbers increases by 63, what is the new average?

- A. 13
- B. 83
- C. 27
- D. 23.5

13. Find the simple interest on Rs 1500 at 4% per annum for 5 years.

- A. 300
- B. 1800
- C. 60
- D. 320

14. A train moves at 72 km/h for 2 hours. How far does it travel?

- A. 74
- B. 144
- C. 72
- D. 180

15. A can complete a job in 6 days and B in 48 days. Working together at constant rates, approximately how many days will they take?

- A. 54.00
- B. 27.00
- C. 42.00
- D. 5.33

16. Solve for x: $5x + 18 = 33$.

- A. 15
- B. 4
- C. 3
- D. 2

17. Find the 8th term of the arithmetic progression 3, 7, 11, ...

- A. 27
- B. 31
- C. 35
- D. 32

18. Find the LCM of 18 and 8.

- A. 72
- B. 144
- C. 10
- D. 74

19. A bag contains 5 red, 8 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{4}{17}$
- B. $\frac{5}{17}$
- C. $\frac{5}{12}$
- D. $\frac{8}{17}$

20. Find the median of: 20, 31, 41, 50, 57.

- A. 31
- B. 50
- C. 41
- D. 39.8

21. A training centre recorded applicants by region: North=220, South=350, East=290, West=190. Which region had the highest number of applicants?

- A. West
- B. South
- C. North
- D. East

22. What is the value of x? Statement I: $2x = 22$. Statement II: $x^2 = 121$ and x is positive.

- A. Statement II alone is sufficient
- B. Statement I alone is sufficient
- C. Either statement alone is sufficient
- D. Both statements together are required

23. What is 15% of 320?

- A. 40
- B. 80
- C. 64
- D. 48

24. Two quantities are in the ratio 8:3 and their sum is 330. What is the first quantity?

- A. 248
- B. 90
- C. 237
- D. 240

25. The average of 6 numbers is 20. If the total of the numbers increases by 12, what is the new average?

- A. 32
- B. 21
- C. 22
- D. 18

26. Find the simple interest on Rs 2500 at 5% per annum for 4 years.

- A. 125
- B. 520
- C. 3000
- D. 500

27. A train moves at 45 km/h for 3 hours. How far does it travel?

- A. 135
- B. 90
- C. 48
- D. 157.5

28. Solve for x: $8x + 10 = 170$.

- A. 21
- B. 19
- C. 160
- D. 20

29. Find the 15th term of the arithmetic progression 4, 8, 12, ...

- A. 61
- B. 56
- C. 64
- D. 60

30. Find the LCM of 9 and 9.

- A. 0
- B. 9
- C. 81
- D. 18

31. A rectangle is 22 cm long and 17 cm wide. What is its area?

- A. 39
- B. 396
- C. 374
- D. 78

- 32. A bag contains 4 red, 9 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?**
- A. $4/11$
 - B. $4/15$
 - C. $9/15$
 - D. $2/15$
- 33. Find the median of: 13, 14, 28, 32, 58.**
- A. 14
 - B. 32
 - C. 29
 - D. 28
- 34. A training centre recorded applicants by region: North=440, South=320, East=190, West=290. Which region had the highest number of applicants?**
- A. West
 - B. South
 - C. North
 - D. East
- 35. What is the value of x ? Statement I: $2x = 38$. Statement II: $x^2 = 361$ and x is positive.**
- A. Statement I alone is sufficient
 - B. Both statements together are required
 - C. Either statement alone is sufficient
 - D. Statement II alone is sufficient
- 36. What is 40% of 960?**
- A. 360
 - B. 432
 - C. 480
 - D. 384
- 37. Two quantities are in the ratio 3:7 and their sum is 130. What is the first quantity?**
- A. 91
 - B. 39
 - C. 42
 - D. 32
- 38. The average of 10 numbers is 27. If the total of the numbers increases by 60, what is the new average?**
- A. 21
 - B. 87
 - C. 30
 - D. 33
- 39. Find the simple interest on Rs 4000 at 12% per annum for 4 years.**
- A. 1968
 - B. 1920
 - C. 480
 - D. 5920

40. Solve for x: $2x + 6 = 42$.

- A. 19
- B. 36
- C. 17
- D. 18

41. Find the 11th term of the arithmetic progression 6, 12, 18, ...

- A. 66
- B. 72
- C. 60
- D. 67

42. Find the HCF of 11 and 8.

- A. 1
- B. 88
- C. 89
- D. 3

43. A rectangle is 9 cm long and 7 cm wide. What is its area?

- A. 32
- B. 63
- C. 72
- D. 16

44. A bag contains 4 red, 10 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{4}{18}$
- B. $\frac{2}{9}$
- C. $\frac{10}{18}$
- D. $\frac{4}{14}$

45. Find the median of: 17, 21, 24, 39, 57.

- A. 39
- B. 21
- C. 24
- D. 31.6

46. A training centre recorded applicants by region: North=360, South=410, East=480, West=410. Which region had the highest number of applicants?

- A. East
- B. West
- C. South
- D. North

47. What is 35% of 480?

- A. 192
- B. 216
- C. 168
- D. 156

48. Two quantities are in the ratio 7:4 and their sum is 187. What is the first quantity?

- A. 119
- B. 126
- C. 68
- D. 115

49. An article costing Rs 400 is sold at a profit of 25%. Find the selling price.

- A. 100
- B. 500
- C. 300
- D. 540

50. The average of 10 numbers is 43. If the total of the numbers increases by 20, what is the new average?

- A. 45
- B. 41
- C. 63
- D. 44

51. Find the simple interest on Rs 4000 at 6% per annum for 2 years.

- A. 240
- B. 492
- C. 4480
- D. 480

52. A train moves at 80 km/h for 3 hours. How far does it travel?

- A. 240
- B. 160
- C. 83
- D. 280

53. A can complete a job in 12 days and B in 20 days. Working together at constant rates, approximately how many days will they take?

- A. 7.50
- B. 16.00
- C. 32.00
- D. 8.00

54. Solve for x: $3x + 16 = 91$.

- A. 26
- B. 25
- C. 24
- D. 75

55. Find the 12th term of the arithmetic progression 3, 8, 13, ...

- A. 59
- B. 63
- C. 58
- D. 53

56. Find the LCM of 8 and 15.

- A. 120
- B. 122
- C. 121
- D. 7

57. A rectangle is 13 cm long and 8 cm wide. What is its area?

- A. 104
- B. 117
- C. 21
- D. 42

58. A bag contains 3 red, 8 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{3}{19}$
- B. $\frac{3}{16}$
- C. Option 1
- D. $\frac{8}{19}$

59. Find the median of: 12, 23, 28, 39, 41.

- A. 39
- B. 28.6
- C. 28
- D. 23

60. A training centre recorded applicants by region: North=190, South=150, East=450, West=470. Which region had the highest number of applicants?

- A. South
- B. North
- C. East
- D. West

Logical Capability

61. What is the smaller angle between the hour and minute hands at 3:10?

- A. 60 degrees
- B. 35 degrees
- C. 5 degrees
- D. 65 degrees

62. Hari is the brother of Charan. Charan is the mother of Gopal. How is Hari related to Gopal?

- A. Brother
- B. Maternal uncle
- C. Paternal uncle
- D. Father

63. Four candidates C, D, A, B are ranked from 1st to 4th. C ranks ahead of D, D ranks ahead of A, and A ranks ahead of B. Who ranks first?

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

64. Statements: All pens are planes. All planes are cycles. Which conclusion definitely follows?

- A. Some cycles are not planes
- B. No pens is cycles
- C. All pens are cycles
- D. All cycles are pens

65. On which day of the week will 13-06-2031 fall?

- A. Friday
- B. Monday
- C. Wednesday
- D. Tuesday

66. Charan is the brother of Esha. Esha is the mother of Hari. How is Charan related to Hari?

- A. Maternal uncle
- B. Brother
- C. Father
- D. Paternal uncle

67. Four candidates B, C, A, D are ranked from 1st to 4th. B ranks ahead of C, C ranks ahead of A, and A ranks ahead of D. Who ranks first?

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

68. Statements: All pens are books. All books are cycles. Which conclusion definitely follows?

- A. No pens is cycles
- B. All cycles are pens
- C. Some cycles are not books
- D. All pens are cycles

69. What is the smaller angle between the hour and minute hands at 6:10?

- A. 60 degrees
- B. 155 degrees
- C. 125 degrees
- D. 95 degrees

70. Arun is the brother of Charan. Charan is the mother of Bala. How is Arun related to Bala?

- A. Maternal uncle
- B. Paternal uncle
- C. Father
- D. Brother

71. Four candidates D, A, C, B are ranked from 1st to 4th. D ranks ahead of A, A ranks ahead of C, and C ranks ahead of B. Who ranks first?

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

72. Statements: All boats are cars. All cars are trains. Which conclusion definitely follows?

- A. All trains are boats
- B. All boats are trains
- C. No boats is trains
- D. Some trains are not cars

73. On which day of the week will 18-12-2029 fall?

- A. Tuesday
- B. Monday
- C. Sunday
- D. Friday

74. Arun is the brother of Deepa. Deepa is the mother of Hari. How is Arun related to Hari?

- A. Father
- B. Brother
- C. Paternal uncle
- D. Maternal uncle

75. Four candidates B, A, D, C are ranked from 1st to 4th. B ranks ahead of A, A ranks ahead of D, and D ranks ahead of C. Who ranks first?

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

76. Statements: All cycles are pens. All pens are cars. Which conclusion definitely follows?

- A. All cycles are cars
- B. Some cars are not pens
- C. All cars are cycles
- D. No cycles is cars

77. What is the smaller angle between the hour and minute hands at 11:20?

- A. 110 degrees
- B. 140 degrees
- C. 120 degrees
- D. 170 degrees

78. Hari is the brother of Arun. Arun is the mother of Farah. How is Hari related to Farah?

- A. Brother
- B. Maternal uncle
- C. Paternal uncle
- D. Father

79. Statements: All books are boats. All boats are trains. Which conclusion definitely follows?

- A. Some trains are not boats
- B. All trains are books
- C. All books are trains
- D. No books is trains

80. On which day of the week will 20-07-2028 fall?

- A. Monday
- B. Thursday
- C. Wednesday
- D. Sunday

Mental Reasoning

81. Finger : Hand :: Toe : ?

- A. Toe
- B. Foot
- C. Hand
- D. Finger

82. Find the next number: 14, 22, 30, 38, 46, ?

- A. 54
- B. 62
- C. 46
- D. 92

83. In a code, each letter is shifted 2 place(s) forward in the alphabet. How is TRAIN coded?

- A. VTCKP
- B. RPYGL
- C. NIART
- D. WUDLQ

84. In a class of 45 students, Meena is 29th from the top. What is her rank from the bottom?

- A. 18
- B. 17
- C. 16
- D. 29

85. Arrange 22, 45, 76, 85, 86 in ascending order. Which number will be in the middle?

- A. 86
- B. 76
- C. 85
- D. 45

86. Find the next number: 17, 25, 33, 41, 49, ?

- A. 49
- B. 65
- C. 57
- D. 98

87. In a class of 33 students, Meena is 10th from the top. What is her rank from the bottom?

- A. 25
- B. 10
- C. 24
- D. 23

88. Arrange 95, 15, 91, 12, 30 in ascending order. Which number will be in the middle?

- A. 15
- B. 91
- C. 95
- D. 30

89. Find the next number: 15, 22, 29, 36, 43, ?

- A. 43
- B. 86
- C. 57
- D. 50

90. In a class of 45 students, Meena is 24th from the top. What is her rank from the bottom?

- A. 21
- B. 24
- C. 23
- D. 22

91. Arrange 68, 78, 76, 73, 35 in ascending order. Which number will be in the middle?

- A. 73
- B. 76
- C. 78
- D. 68

92. Find the next number: 5, 10, 15, 20, 25, ?

- A. 35
- B. 50
- C. 25
- D. 30

93. In a class of 45 students, Meena is 5th from the top. What is her rank from the bottom?

- A. 40
- B. 42
- C. 5
- D. 41

94. Arrange 69, 29, 34, 40, 79 in ascending order. Which number will be in the middle?

- A. 40
- B. 34
- C. 69
- D. 79

95. Find the next number: 9, 15, 21, 27, 33, ?

- A. 66
- B. 39
- C. 33
- D. 45

96. In a class of 36 students, Meena is 11th from the top. What is her rank from the bottom?

- A. 11
- B. 25
- C. 26
- D. 27

97. Arrange 79, 31, 37, 23, 71 in ascending order. Which number will be in the middle?

- A. 71
- B. 37
- C. 31
- D. 79

98. In a class of 58 students, Meena is 43th from the top. What is her rank from the bottom?

- A. 15
- B. 17
- C. 43
- D. 16

99. Arrange 33, 89, 14, 37, 55 in ascending order. Which number will be in the middle?

- A. 37
- B. 89
- C. 55
- D. 33

100. Find the next number: 5, 14, 23, 32, 41, ?

- A. 59
- B. 50
- C. 41
- D. 82

PRACTICE SET 3 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: D - 1000

$SI = \text{PRT}/100 = 5000 \times 10 \times 2/100 = \text{Rs } 1000.$

2. Answer: D - 5.00

Combined rate = $1/6 + 1/30$. Time = $1 / \text{combined rate} = 5.00$ days.

3. Answer: A - 21

$6x = 126$; therefore $x = 126/6 = 21$.

4. Answer: D - 98

$a_n = a + (n-1)d = 14 + (15-1)x6 = 98.$

5. Answer: D - 1

$\text{HCF}(17,16) = 1$; $\text{LCM} = (17 \times 16)/1 = 272$. Therefore the required HCF is 1.

6. Answer: C - 140

Area of a rectangle = length $\times$ width = $20 \times 7 = 140 \text{ cm}^2$.

7. Answer: D - 3/20

Probability = favorable outcomes / total outcomes = $3/20 = 3/20$.

8. Answer: C - 28

The values are already ordered. For 5 observations, the median is the 3rd value, which is 28.

9. Answer: B - South

The largest value in the table is 500, corresponding to South.

10. Answer: D - 480

40% of 1200 = $(40/100) \times 1200 = 480$.

11. Answer: D - 57

Total parts = 7. First quantity = $3/7 \times 133 = 57$.

12. Answer: C - 27

Increase in average = increase in total / number of values = $63/9 = 7$. New average = $20+7 = 27$.

13. Answer: A - 300

$SI = \text{PRT}/100 = 1500 \times 4 \times 5/100 = \text{Rs } 300.$

14. Answer: B - 144

Distance = speed $\times$ time = $72 \times 2 = 144 \text{ km}$.

15. Answer: D - 5.33

Combined rate = $1/6 + 1/48$. Time = $1 / \text{combined rate} = 5.33$ days.

16. Answer: C - 3

$5x = 15$; therefore $x = 15/5 = 3$.

17. Answer: B - 31

$a_n = a + (n-1)d = 3 + (8-1)x4 = 31.$

18. Answer: A - 72

$\text{HCF}(18,8) = 2$; $\text{LCM} = (18 \times 8)/2 = 72$. Therefore the required LCM is 72.

19. Answer: B - 5/17

Probability = favorable outcomes / total outcomes = $5/17 = 5/17$.

20. Answer: C - 41

The values are already ordered. For 5 observations, the median is the 3rd value, which is 41.

21. Answer: B - South

The largest value in the table is 350, corresponding to South.

22. Answer: C - Either statement alone is sufficient

I gives $x=11$. II gives $x=\sqrt{121}=11$ because x is stated positive. Hence either statement alone is sufficient.

23. Answer: D - 48

15% of 320 = $(15/100) \times 320 = 48$.

24. Answer: D - 240

Total parts = 11. First quantity = $\frac{8}{11} \times 330 = 240$.

25. Answer: C - 22

Increase in average = increase in total / number of values = $\frac{12}{6} = 2$. New average = $20+2 = 22$.

26. Answer: D - 500

SI = $\frac{\text{PRT}}{100} = \frac{2500 \times 5 \times 4}{100} = \text{Rs } 500$.

27. Answer: A - 135

Distance = speed $\times$ time = $45 \times 3 = 135$ km.

28. Answer: D - 20

$8x = 160$; therefore $x = \frac{160}{8} = 20$.

29. Answer: D - 60

$a_n = a + (n-1)d = 4 + (15-1) \times 4 = 60$.

30. Answer: B - 9

$\text{HCF}(9,9) = 9$; $\text{LCM} = \frac{(9 \times 9)}{9} = 9$. Therefore the required LCM is 9.

31. Answer: C - 374

Area of a rectangle = length $\times$ width = $22 \times 17 = 374 \text{ cm}^2$.

32. Answer: B - 4/15

Probability = favorable outcomes / total outcomes = $\frac{4}{15} = \frac{4}{15}$.

33. Answer: D - 28

The values are already ordered. For 5 observations, the median is the 3rd value, which is 28.

34. Answer: C - North

The largest value in the table is 440, corresponding to North.

35. Answer: C - Either statement alone is sufficient

I gives $x=19$. II gives $x=\sqrt{361}=19$ because x is stated positive. Hence either statement alone is sufficient.

36. Answer: D - 384

40% of 960 = $\frac{40}{100} \times 960 = 384$.

37. Answer: B - 39

Total parts = 10. First quantity = $\frac{3}{10} \times 130 = 39$.

38. Answer: D - 33

Increase in average = increase in total / number of values = $\frac{60}{10} = 6$. New average = $27+6 = 33$.

39. Answer: B - 1920

SI = $\frac{\text{PRT}}{100} = \frac{4000 \times 12 \times 4}{100} = \text{Rs } 1920$.

40. Answer: D - 18

$2x = 36$; therefore $x = \frac{36}{2} = 18$.

41. Answer: A - 66

$a_n = a + (n-1)d = 6 + (11-1) \times 6 = 66$.

42. Answer: A - 1

$\text{HCF}(11,8) = 1$; $\text{LCM} = \frac{(11 \times 8)}{1} = 88$. Therefore the required HCF is 1.

43. Answer: B - 63

Area of a rectangle = length $\times$ width = $9 \times 7 = 63 \text{ cm}^2$.

44. Answer: B - 2/9

Probability = favorable outcomes / total outcomes = $\frac{4}{18} = \frac{2}{9}$.

45. Answer: C - 24

The values are already ordered. For 5 observations, the median is the 3rd value, which is 24.

46. Answer: A - East

The largest value in the table is 480, corresponding to East.

47. Answer: C - 168

35% of 480 = $\frac{35}{100} \times 480 = 168$.

48. Answer: A - 119

Total parts = 11. First quantity = $\frac{7}{11} \times 187 = 119$.

49. Answer: B - 500

$SP = CP \times (100 + \text{profit}\%)/100 = 400 \times 125/100 = \text{Rs } 500.$

50. Answer: A - 45

Increase in average = increase in total / number of values = $20/10 = 2$. New average = $43+2 = 45$.

51. Answer: D - 480

$SI = PRT/100 = 4000 \times 6 \times 2/100 = \text{Rs } 480.$

52. Answer: A - 240

Distance = speed $\times$ time = $80 \times 3 = 240 \text{ km}.$

53. Answer: A - 7.50

Combined rate = $1/12 + 1/20$. Time = $1 / \text{combined rate} = 7.50 \text{ days}.$

54. Answer: B - 25

$3x = 75$; therefore $x = 75/3 = 25$.

55. Answer: C - 58

$a_n = a + (n-1)d = 3 + (12-1) \times 5 = 58.$

56. Answer: A - 120

$HCF(8,15) = 1$; $LCM = (8 \times 15)/1 = 120$. Therefore the required LCM is 120.

57. Answer: A - 104

Area of a rectangle = length $\times$ width = $13 \times 8 = 104 \text{ cm}^2.$

58. Answer: A - 3/19

Probability = favorable outcomes / total outcomes = $3/19 = 3/19$.

59. Answer: C - 28

The values are already ordered. For 5 observations, the median is the 3rd value, which is 28.

60. Answer: D - West

The largest value in the table is 470, corresponding to West.

Logical Capability**61. Answer: B - 35 degrees**

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 35 degrees.

62. Answer: B - Maternal uncle

Hari is the brother of Gopal's mother, so Hari is Gopal's maternal uncle.

63. Answer: C - C

The statements form the complete order $C > D > A > B$, so C is first.

64. Answer: C - All pens are cycles

If every pens belongs to planes, and every planes belongs to cycles, then every pens must also belong to cycles.

65. Answer: A - Friday

Using standard calendar day calculation, 13-06-2031 falls on Friday.

66. Answer: A - Maternal uncle

Charan is the brother of Hari's mother, so Charan is Hari's maternal uncle.

67. Answer: D - B

The statements form the complete order $B > C > A > D$, so B is first.

68. Answer: D - All pens are cycles

If every pens belongs to books, and every books belongs to cycles, then every pens must also belong to cycles.

69. Answer: C - 125 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 125 degrees.

70. Answer: A - Maternal uncle

Arun is the brother of Bala's mother, so Arun is Bala's maternal uncle.

71. Answer: A - D

The statements form the complete order $D > A > C > B$, so D is first.

72. Answer: B - All boats are trains

If every boats belongs to cars, and every cars belongs to trains, then every boats must also belong to trains.

73. Answer: A - Tuesday

Using standard calendar day calculation, 18-12-2029 falls on Tuesday.

74. Answer: D - Maternal uncle

Arun is the brother of Hari's mother, so Arun is Hari's maternal uncle.

75. Answer: C - B

The statements form the complete order $B > A > D > C$, so B is first.

76. Answer: A - All cycles are cars

If every cycles belongs to pens, and every pens belongs to cars, then every cycles must also belong to cars.

77. Answer: B - 140 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 140 degrees.

78. Answer: B - Maternal uncle

Hari is the brother of Farah's mother, so Hari is Farah's maternal uncle.

79. Answer: C - All books are trains

If every books belongs to boats, and every boats belongs to trains, then every books must also belong to trains.

80. Answer: B - Thursday

Using standard calendar day calculation, 20-07-2028 falls on Thursday.

Mental Reasoning**81. Answer: B - Foot**

The relationship in the first pair is the same as in the second: Finger is related to Hand as Toe is related to Foot.

82. Answer: A - 54

The series increases by 8 each time, so the next term is $46 + 8 = 54$.

83. Answer: A - VTCKP

Shift every letter of TRAIN forward by 2. This gives VTCKP.

84. Answer: B - 17

Rank from bottom = total - rank from top + 1 = $45 - 29 + 1 = 17$.

85. Answer: B - 76

Ascending order is 22, 45, 76, 85, 86; the middle (3rd) number is 76.

86. Answer: C - 57

The series increases by 8 each time, so the next term is $49 + 8 = 57$.

87. Answer: C - 24

Rank from bottom = total - rank from top + 1 = $33 - 10 + 1 = 24$.

88. Answer: D - 30

Ascending order is 12, 15, 30, 91, 95; the middle (3rd) number is 30.

89. Answer: D - 50

The series increases by 7 each time, so the next term is $43 + 7 = 50$.

90. Answer: D - 22

Rank from bottom = total - rank from top + 1 = $45 - 24 + 1 = 22$.

91. Answer: A - 73

Ascending order is 35, 68, 73, 76, 78; the middle (3rd) number is 73.

92. Answer: D - 30

The series increases by 5 each time, so the next term is $25 + 5 = 30$.

93. Answer: D - 41

Rank from bottom = total - rank from top + 1 = $45 - 5 + 1 = 41$.

94. Answer: A - 40

Ascending order is 29, 34, 40, 69, 79; the middle (3rd) number is 40.

95. Answer: B - 39

The series increases by 6 each time, so the next term is $33 + 6 = 39$.

96. Answer: C - 26

Rank from bottom = total - rank from top + 1 = $36 - 11 + 1 = 26$.

97. Answer: B - 37

Ascending order is 23, 31, 37, 71, 79; the middle (3rd) number is 37.

98. Answer: D - 16

Rank from bottom = total - rank from top + 1 = $58 - 43 + 1 = 16$.

99. Answer: A - 37

Ascending order is 14, 33, 37, 55, 89; the middle (3rd) number is 37.

100. Answer: B - 50

The series increases by 9 each time, so the next term is $41 + 9 = 50$.

EXAMGURUX

PRACTICE SET 4

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. What is the value of x ? Statement I: $2x = 18$. Statement II: $x^2 = 81$ and x is positive.

- A. Either statement alone is sufficient
- B. Statement I alone is sufficient
- C. Both statements together are required
- D. Statement II alone is sufficient

2. What is 20% of 800?

- A. 200
- B. 160
- C. 140
- D. 240

3. Two quantities are in the ratio 8:3 and their sum is 99. What is the first quantity?

- A. 72
- B. 69
- C. 80
- D. 27

4. An article costing Rs 500 is sold at a profit of 25%. Find the selling price.

- A. 625
- B. 125
- C. 675
- D. 375

5. The average of 5 numbers is 43. If the total of the numbers increases by 30, what is the new average?

- A. 49
- B. 46
- C. 73
- D. 37

6. Find the simple interest on Rs 5000 at 4% per annum for 4 years.

- A. 200
- B. 816
- C. 5800
- D. 800

7. A train moves at 60 km/h for 3.5 hours. How far does it travel?

- A. 150
- B. 240
- C. 63.5
- D. 210

- 8. A can complete a job in 15 days and B in 24 days. Working together at constant rates, approximately how many days will they take?**
- A. 19.50
 - B. 9.23
 - C. 9.00
 - D. 39.00
- 9. Solve for x: $9x + 19 = 217$.**
- A. 23
 - B. 198
 - C. 22
 - D. 21
- 10. Find the 19th term of the arithmetic progression 6, 14, 22, ...**
- A. 142
 - B. 150
 - C. 151
 - D. 158
- 11. Find the LCM of 12 and 20.**
- A. 240
 - B. 60
 - C. 8
 - D. 64
- 12. A rectangle is 10 cm long and 6 cm wide. What is its area?**
- A. 32
 - B. 60
 - C. 70
 - D. 16
- 13. A bag contains 9 red, 6 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?**
- A. $9/14$
 - B. $9/23$
 - C. $6/23$
 - D. $8/23$
- 14. Find the median of: 22, 35, 47, 54, 56.**
- A. 47
 - B. 54
 - C. 42.8
 - D. 35

15. A training centre recorded applicants by region: North=350, South=400, East=210, West=330. Which region had the highest number of applicants?

- A. East
- B. South
- C. North
- D. West

16. What is the value of x ? Statement I: $2x = 40$. Statement II: $x^2 = 400$ and x is positive.

- A. Both statements together are required
- B. Either statement alone is sufficient
- C. Statement I alone is sufficient
- D. Statement II alone is sufficient

17. Two quantities are in the ratio 6:5 and their sum is 121. What is the first quantity?

- A. 66
- B. 72
- C. 55
- D. 61

18. An article costing Rs 600 is sold at a profit of 10%. Find the selling price.

- A. 540
- B. 660
- C. 60
- D. 720

19. The average of 5 numbers is 25. If the total of the numbers increases by 30, what is the new average?

- A. 28
- B. 19
- C. 55
- D. 31

20. Find the simple interest on Rs 2000 at 10% per annum for 4 years.

- A. 2800
- B. 840
- C. 200
- D. 800

21. A can complete a job in 12 days and B in 24 days. Working together at constant rates, approximately how many days will they take?

- A. 18.00
- B. 12.00
- C. 8.00
- D. 36.00

22. Solve for x : $3x + 16 = 73$.

- A. 18
- B. 19
- C. 57
- D. 20

23. Find the 9th term of the arithmetic progression 8, 14, 20, ...

- A. 57
- B. 56
- C. 50
- D. 62

24. Find the LCM of 12 and 10.

- A. 120
- B. 60
- C. 2
- D. 62

25. A rectangle is 25 cm long and 21 cm wide. What is its area?

- A. 92
- B. 550
- C. 525
- D. 46

26. A bag contains 7 red, 6 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{7}{16}$
- B. $\frac{3}{16}$
- C. $\frac{6}{16}$
- D. $\frac{7}{9}$

27. Find the median of: 12, 21, 31, 44, 59.

- A. 44
- B. 33.4
- C. 31
- D. 21

28. A training centre recorded applicants by region: North=120, South=350, East=300, West=120. Which region had the highest number of applicants?

- A. East
- B. North
- C. South
- D. West

29. What is 20% of 1200?

- A. 210
- B. 240
- C. 360
- D. 300

30. Two quantities are in the ratio 7:4 and their sum is 121. What is the first quantity?

- A. 73
- B. 84
- C. 77
- D. 44

31. An article costing Rs 800 is sold at a profit of 30%. Find the selling price.

- A. 560
- B. 1120
- C. 240
- D. 1040

32. The average of 5 numbers is 48. If the total of the numbers increases by 30, what is the new average?

- A. 51
- B. 54
- C. 78
- D. 42

33. A train moves at 54 km/h for 1.5 hours. How far does it travel?

- A. 81
- B. 108
- C. 55.5
- D. 27

34. A can complete a job in 18 days and B in 36 days. Working together at constant rates, approximately how many days will they take?

- A. 12.00
- B. 18.00
- C. 54.00
- D. 27.00

35. Solve for x: $2x + 8 = 32$.

- A. 11
- B. 13
- C. 12
- D. 24

36. Find the 9th term of the arithmetic progression 15, 20, 25, ...

- A. 60
- B. 50
- C. 56
- D. 55

37. Find the HCF of 15 and 11.

- A. 166
- B. 1
- C. 4
- D. 165

38. A rectangle is 21 cm long and 14 cm wide. What is its area?

- A. 294
- B. 315
- C. 70
- D. 35

- 39. A bag contains 8 red, 9 blue and 6 green balls. One ball is drawn at random. What is the probability of drawing a red ball?**
- A. $\frac{6}{23}$
 - B. $\frac{8}{23}$
 - C. $\frac{8}{15}$
 - D. $\frac{9}{23}$
- 40. Find the median of: 13, 17, 20, 24, 52.**
- A. 20
 - B. 17
 - C. 25.2
 - D. 24
- 41. A training centre recorded applicants by region: North=460, South=300, East=330, West=210. Which region had the highest number of applicants?**
- A. South
 - B. North
 - C. East
 - D. West
- 42. What is 15% of 480?**
- A. 72
 - B. 96
 - C. 120
 - D. 60
- 43. Two quantities are in the ratio 5:8 and their sum is 247. What is the first quantity?**
- A. 95
 - B. 87
 - C. 152
 - D. 100
- 44. An article costing Rs 2000 is sold at a profit of 30%. Find the selling price.**
- A. 2800
 - B. 2600
 - C. 1400
 - D. 600
- 45. The average of 10 numbers is 50. If the total of the numbers increases by 20, what is the new average?**
- A. 70
 - B. 51
 - C. 52
 - D. 48
- 46. Find the simple interest on Rs 1500 at 6% per annum for 2 years.**
- A. 1680
 - B. 192
 - C. 90
 - D. 180

47. A train moves at 80 km/h for 1.5 hours. How far does it travel?

- A. 81.5
- B. 40
- C. 120
- D. 160

48. A can complete a job in 6 days and B in 40 days. Working together at constant rates, approximately how many days will they take?

- A. 23.00
- B. 46.00
- C. 34.00
- D. 5.22

49. Solve for x: $3x + 10 = 58$.

- A. 48
- B. 16
- C. 15
- D. 17

50. Find the 9th term of the arithmetic progression 14, 20, 26, ...

- A. 68
- B. 56
- C. 63
- D. 62

51. Find the HCF of 13 and 22.

- A. 287
- B. 286
- C. 9
- D. 1

52. A bag contains 5 red, 8 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{8}{18}$
- B. $\frac{5}{13}$
- C. Option 1
- D. $\frac{5}{18}$

53. Find the median of: 13, 14, 42, 49, 57.

- A. 42
- B. 49
- C. 35
- D. 14

54. A training centre recorded applicants by region: North=320, South=470, East=290, West=150. Which region had the highest number of applicants?
- A. East
 - B. North
 - C. West
 - D. South
55. What is 25% of 1200?
- A. 420
 - B. 270
 - C. 300
 - D. 360
56. Two quantities are in the ratio 3:5 and their sum is 200. What is the first quantity?
- A. 125
 - B. 70
 - C. 78
 - D. 75
57. An article costing Rs 1500 is sold at a profit of 12%. Find the selling price.
- A. 1320
 - B. 180
 - C. 1830
 - D. 1680
58. The average of 7 numbers is 29. If the total of the numbers increases by 28, what is the new average?
- A. 25
 - B. 33
 - C. 57
 - D. 31
59. Find the simple interest on Rs 2000 at 12% per annum for 5 years.
- A. 1260
 - B. 240
 - C. 3200
 - D. 1200
60. Solve for x: $7x + 15 = 64$.
- A. 7
 - B. 8
 - C. 6
 - D. 49

Logical Capability

61. Esha is the brother of Gopal. Gopal is the mother of Farah. How is Esha related to Farah?
- A. Brother
 - B. Father
 - C. Maternal uncle
 - D. Paternal uncle

62. Researchers compared two similar streets during summer. The street with mature roadside trees had lower afternoon surface temperatures than the street with little shade. Traffic volume was nearly the same on both streets. Which factor is the passage mainly associating with the lower surface temperature?

- A. Tree shade
- B. Higher vehicle speed
- C. Different road length
- D. Lower traffic volume

63. Four candidates D, A, B, C are ranked from 1st to 4th. D ranks ahead of A, A ranks ahead of B, and B ranks ahead of C. Who ranks first?

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

64. Statements: All cycles are boats. All boats are planes. Which conclusion definitely follows?

- A. No cycles is planes
- B. Some planes are not boats
- C. All planes are cycles
- D. All cycles are planes

65. What is the smaller angle between the hour and minute hands at 3:40?

- A. 100 degrees
- B. 130 degrees
- C. 60 degrees
- D. 160 degrees

66. Charan is the brother of Deepa. Deepa is the mother of Hari. How is Charan related to Hari?

- A. Maternal uncle
- B. Paternal uncle
- C. Brother
- D. Father

67. Four candidates D, C, A, B are ranked from 1st to 4th. D ranks ahead of C, C ranks ahead of A, and A ranks ahead of B. Who ranks first?

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

68. Statements: All boats are buses. All buses are planes. Which conclusion definitely follows?

- A. Some planes are not buses
- B. No boats is planes
- C. All boats are planes
- D. All planes are boats

69. On which day of the week will 21-03-2029 fall?

- A. Tuesday
- B. Wednesday
- C. Sunday
- D. Friday

70. Gopal is the brother of Arun. Arun is the mother of Farah. How is Gopal related to Farah?

- A. Father
- B. Brother
- C. Paternal uncle
- D. Maternal uncle

71. Statements: All buses are cycles. All cycles are cars. Which conclusion definitely follows?

- A. All cars are buses
- B. All buses are cars
- C. Some cars are not cycles
- D. No buses is cars

72. What is the smaller angle between the hour and minute hands at 5:30?

- A. 15 degrees
- B. Option 1
- C. 45 degrees
- D. 0 degrees

73. Gopal is the brother of Esha. Esha is the mother of Arun. How is Gopal related to Arun?

- A. Brother
- B. Father
- C. Maternal uncle
- D. Paternal uncle

74. Four candidates B, D, A, C are ranked from 1st to 4th. B ranks ahead of D, D ranks ahead of A, and A ranks ahead of C. Who ranks first?

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

75. Statements: All boats are trains. All trains are cars. Which conclusion definitely follows?

- A. Some cars are not trains
- B. All boats are cars
- C. All cars are boats
- D. No boats is cars

76. On which day of the week will 18-07-2030 fall?

- A. Friday
- B. Wednesday
- C. Thursday
- D. Tuesday

77. Hari is the brother of Esha. Esha is the mother of Charan. How is Hari related to Charan?

- A. Father
- B. Maternal uncle
- C. Paternal uncle
- D. Brother

78. Four candidates A, D, B, C are ranked from 1st to 4th. A ranks ahead of D, D ranks ahead of B, and B ranks ahead of C. Who ranks first?

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

79. Statements: All pens are cycles. All cycles are cars. Which conclusion definitely follows?

- A. Some cars are not cycles
- B. All cars are pens
- C. All pens are cars
- D. No pens is cars

80. What is the smaller angle between the hour and minute hands at 4:50?

- A. 180 degrees
- B. 125 degrees
- C. 155 degrees
- D. 120 degrees

Mental Reasoning

81. In a code, each letter is shifted 2 place(s) forward in the alphabet. How is SIGNAL coded?

- A. LANGIS
- B. VLJQDO
- C. QGELYJ
- D. UKIPCN

82. In a class of 58 students, Meena is 28th from the top. What is her rank from the bottom?

- A. 31
- B. 28
- C. 30
- D. 32

83. Arrange 73, 40, 90, 67, 12 in ascending order. Which number will be in the middle?

- A. 67
- B. 73
- C. 90
- D. 40

84. Find the next number: 11, 15, 19, 23, 27, ?

- A. 27
- B. 54
- C. 31
- D. 35

85. In a class of 40 students, Meena is 20th from the top. What is her rank from the bottom?

- A. 23
- B. 21
- C. 22
- D. 20

86. Arrange 71, 34, 96, 42, 60 in ascending order. Which number will be in the middle?

- A. 60
- B. 71
- C. 96
- D. 42

87. Find the next number: 18, 27, 36, 45, 54, ?

- A. 63
- B. 72
- C. 54
- D. 108

88. In a class of 46 students, Meena is 34th from the top. What is her rank from the bottom?

- A. 14
- B. 13
- C. 34
- D. 12

89. Arrange 88, 93, 66, 32, 69 in ascending order. Which number will be in the middle?

- A. 69
- B. 66
- C. 88
- D. 93

90. In a class of 46 students, Meena is 21th from the top. What is her rank from the bottom?

- A. 26
- B. 25
- C. 21
- D. 27

91. Arrange 47, 70, 27, 71, 31 in ascending order. Which number will be in the middle?

- A. 47
- B. 71
- C. 70
- D. 31

92. Find the next number: 7, 12, 17, 22, 27, ?

- A. 54
- B. 32
- C. 37
- D. 27

93. Arrange 64, 66, 45, 33, 10 in ascending order. Which number will be in the middle?

- A. 66
- B. 45
- C. 33
- D. 64

94. Find the next number: 4, 8, 12, 16, 20, ?

- A. 20
- B. 28
- C. 40
- D. 24

95. In a code, each letter is shifted 1 place(s) forward in the alphabet. How is TRACK coded?

- A. SQZBJ
- B. VTCEM
- C. KCART
- D. USBDL

96. In a class of 60 students, Meena is 24th from the top. What is her rank from the bottom?

- A. 24
- B. 36
- C. 38
- D. 37

97. Arrange 87, 17, 48, 23, 35 in ascending order. Which number will be in the middle?

- A. 23
- B. 48
- C. 35
- D. 87

98. Find the next number: 12, 20, 28, 36, 44, ?

- A. 52
- B. 44
- C. 88
- D. 60

99. In a code, each letter is shifted 3 place(s) forward in the alphabet. How is CABIN coded?

- A. GEFMR
- B. ZXYFK
- C. NIBAC
- D. FDELQ

100. In a class of 43 students, Meena is 13th from the top. What is her rank from the bottom?

- A. 31
- B. 13
- C. 32
- D. 30

PRACTICE SET 4 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: A - Either statement alone is sufficient

I gives $x=9$. II gives $x=\sqrt{81}=9$ because x is stated positive. Hence either statement alone is sufficient.

2. Answer: B - 160

20% of 800 = $(20/100) \times 800 = 160$.

3. Answer: A - 72

Total parts = 11. First quantity = $8/11 \times 99 = 72$.

4. Answer: A - 625

SP = CP $\times (100 + \text{profit}\%)/100 = 500 \times 125/100 = \text{Rs } 625$.

5. Answer: A - 49

Increase in average = increase in total / number of values = $30/5 = 6$. New average = $43+6 = 49$.

6. Answer: D - 800

SI = $\text{PRT}/100 = 5000 \times 4 \times 4/100 = \text{Rs } 800$.

7. Answer: D - 210

Distance = speed $\times$ time = $60 \times 3.5 = 210 \text{ km}$.

8. Answer: B - 9.23

Combined rate = $1/15 + 1/24$. Time = $1 / \text{combined rate} = 9.23 \text{ days}$.

9. Answer: C - 22

$9x = 198$; therefore $x = 198/9 = 22$.

10. Answer: B - 150

$a_n = a + (n-1)d = 6 + (19-1) \times 8 = 150$.

11. Answer: B - 60

$\text{HCF}(12,20) = 4$; $\text{LCM} = (12 \times 20)/4 = 60$. Therefore the required LCM is 60.

12. Answer: B - 60

Area of a rectangle = length $\times$ width = $10 \times 6 = 60 \text{ cm}^2$.

13. Answer: B - 9/23

Probability = favorable outcomes / total outcomes = $9/23 = 9/23$.

14. Answer: A - 47

The values are already ordered. For 5 observations, the median is the 3rd value, which is 47.

15. Answer: B - South

The largest value in the table is 400, corresponding to South.

16. Answer: B - Either statement alone is sufficient

I gives $x=20$. II gives $x=\sqrt{400}=20$ because x is stated positive. Hence either statement alone is sufficient.

17. Answer: A - 66

Total parts = 11. First quantity = $6/11 \times 121 = 66$.

18. Answer: B - 660

SP = CP $\times (100 + \text{profit}\%)/100 = 600 \times 110/100 = \text{Rs } 660$.

19. Answer: D - 31

Increase in average = increase in total / number of values = $30/5 = 6$. New average = $25+6 = 31$.

20. Answer: D - 800

SI = $\text{PRT}/100 = 2000 \times 10 \times 4/100 = \text{Rs } 800$.

21. Answer: C - 8.00

Combined rate = $1/12 + 1/24$. Time = $1 / \text{combined rate} = 8.00 \text{ days}$.

22. Answer: B - 19

$3x = 57$; therefore $x = 57/3 = 19$.

23. Answer: B - 56

$a_n = a + (n-1)d = 8 + (9-1) \times 6 = 56$.

24. Answer: B - 60

$HCF(12,10) = 2$; $LCM = (12 \times 10)/2 = 60$. Therefore the required LCM is 60.

25. Answer: C - 525

Area of a rectangle = length $\times$ width = $25 \times 21 = 525 \text{ cm}^2$.

26. Answer: A - 7/16

Probability = favorable outcomes / total outcomes = $7/16 = 7/16$.

27. Answer: C - 31

The values are already ordered. For 5 observations, the median is the 3rd value, which is 31.

28. Answer: C - South

The largest value in the table is 350, corresponding to South.

29. Answer: B - 240

20% of 1200 = $(20/100) \times 1200 = 240$.

30. Answer: C - 77

Total parts = 11. First quantity = $7/11 \times 121 = 77$.

31. Answer: D - 1040

$SP = CP \times (100 + \text{profit}\%)/100 = 800 \times 130/100 = \text{Rs } 1040$.

32. Answer: B - 54

Increase in average = increase in total / number of values = $30/5 = 6$. New average = $48+6 = 54$.

33. Answer: A - 81

Distance = speed $\times$ time = $54 \times 1.5 = 81 \text{ km}$.

34. Answer: A - 12.00

Combined rate = $1/18 + 1/36$. Time = $1 / \text{combined rate} = 12.00 \text{ days}$.

35. Answer: C - 12

$2x = 24$; therefore $x = 24/2 = 12$.

36. Answer: D - 55

$a_n = a + (n-1)d = 15 + (9-1) \times 5 = 55$.

37. Answer: B - 1

$HCF(15,11) = 1$; $LCM = (15 \times 11)/1 = 165$. Therefore the required HCF is 1.

38. Answer: A - 294

Area of a rectangle = length $\times$ width = $21 \times 14 = 294 \text{ cm}^2$.

39. Answer: B - 8/23

Probability = favorable outcomes / total outcomes = $8/23 = 8/23$.

40. Answer: A - 20

The values are already ordered. For 5 observations, the median is the 3rd value, which is 20.

41. Answer: B - North

The largest value in the table is 460, corresponding to North.

42. Answer: A - 72

15% of 480 = $(15/100) \times 480 = 72$.

43. Answer: A - 95

Total parts = 13. First quantity = $5/13 \times 247 = 95$.

44. Answer: B - 2600

$SP = CP \times (100 + \text{profit}\%)/100 = 2000 \times 130/100 = \text{Rs } 2600$.

45. Answer: C - 52

Increase in average = increase in total / number of values = $20/10 = 2$. New average = $50+2 = 52$.

46. Answer: D - 180

$SI = PRT/100 = 1500 \times 6 \times 2/100 = \text{Rs } 180$.

47. Answer: C - 120

Distance = speed $\times$ time = $80 \times 1.5 = 120 \text{ km}$.

48. Answer: D - 5.22

Combined rate = $1/6 + 1/40$. Time = $1 / \text{combined rate} = 5.22 \text{ days}$.

49. Answer: B - 16

$3x = 48$; therefore $x = 48/3 = 16$.

50. Answer: D - 62

$a_n = a + (n-1)d = 14 + (9-1) \times 6 = 62$.

51. Answer: D - 1

$HCF(13,22) = 1$; $LCM = (13 \times 22)/1 = 286$. Therefore the required HCF is 1.

52. Answer: D - 5/18

Probability = favorable outcomes / total outcomes = $5/18 = 5/18$.

53. Answer: A - 42

The values are already ordered. For 5 observations, the median is the 3rd value, which is 42.

54. Answer: D - South

The largest value in the table is 470, corresponding to South.

55. Answer: C - 300

25% of 1200 = $(25/100) \times 1200 = 300$.

56. Answer: D - 75

Total parts = 8. First quantity = $3/8 \times 200 = 75$.

57. Answer: D - 1680

$SP = CP \times (100 + \text{profit}\%)/100 = 1500 \times 112/100 = \text{Rs } 1680$.

58. Answer: B - 33

Increase in average = increase in total / number of values = $28/7 = 4$. New average = $29+4 = 33$.

59. Answer: D - 1200

$SI = PRT/100 = 2000 \times 12 \times 5/100 = \text{Rs } 1200$.

60. Answer: A - 7

$7x = 49$; therefore $x = 49/7 = 7$.

Logical Capability**61. Answer: C - Maternal uncle**

Esha is the brother of Farah's mother, so Esha is Farah's maternal uncle.

62. Answer: A - Tree shade

The streets had similar traffic volume; the key difference mentioned is mature roadside trees and shade.

63. Answer: B - D

The statements form the complete order $D > A > B > C$, so D is first.

64. Answer: D - All cycles are planes

If every cycles belongs to boats, and every boats belongs to planes, then every cycles must also belong to planes.

65. Answer: B - 130 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 130 degrees.

66. Answer: A - Maternal uncle

Charan is the brother of Hari's mother, so Charan is Hari's maternal uncle.

67. Answer: D - D

The statements form the complete order $D > C > A > B$, so D is first.

68. Answer: C - All boats are planes

If every boats belongs to buses, and every buses belongs to planes, then every boats must also belong to planes.

69. Answer: B - Wednesday

Using standard calendar day calculation, 21-03-2029 falls on Wednesday.

70. Answer: D - Maternal uncle

Gopal is the brother of Farah's mother, so Gopal is Farah's maternal uncle.

71. Answer: B - All buses are cars

If every buses belongs to cycles, and every cycles belongs to cars, then every buses must also belong to cars.

72. Answer: A - 15 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 15 degrees.

73. Answer: C - Maternal uncle

Gopal is the brother of Arun's mother, so Gopal is Arun's maternal uncle.

74. Answer: B - B

The statements form the complete order $B > D > A > C$, so B is first.

75. Answer: B - All boats are cars

If every boats belongs to trains, and every trains belongs to cars, then every boats must also belong to cars.

76. Answer: C - Thursday

Using standard calendar day calculation, 18-07-2030 falls on Thursday.

77. Answer: B - Maternal uncle

Hari is the brother of Charan's mother, so Hari is Charan's maternal uncle.

78. Answer: B - A

The statements form the complete order $A > D > B > C$, so A is first.

79. Answer: C - All pens are cars

If every pens belongs to cycles, and every cycles belongs to cars, then every pens must also belong to cars.

80. Answer: C - 155 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 155 degrees.

Mental Reasoning

81. Answer: D - UKIPCN

Shift every letter of SIGNAL forward by 2. This gives UKIPCN.

82. Answer: A - 31

Rank from bottom = total - rank from top + 1 = $58 - 28 + 1 = 31$.

83. Answer: A - 67

Ascending order is 12, 40, 67, 73, 90; the middle (3rd) number is 67.

84. Answer: C - 31

The series increases by 4 each time, so the next term is $27 + 4 = 31$.

85. Answer: B - 21

Rank from bottom = total - rank from top + 1 = $40 - 20 + 1 = 21$.

86. Answer: A - 60

Ascending order is 34, 42, 60, 71, 96; the middle (3rd) number is 60.

87. Answer: A - 63

The series increases by 9 each time, so the next term is $54 + 9 = 63$.

88. Answer: B - 13

Rank from bottom = total - rank from top + 1 = $46 - 34 + 1 = 13$.

89. Answer: A - 69

Ascending order is 32, 66, 69, 88, 93; the middle (3rd) number is 69.

90. Answer: A - 26

Rank from bottom = total - rank from top + 1 = $46 - 21 + 1 = 26$.

91. Answer: A - 47

Ascending order is 27, 31, 47, 70, 71; the middle (3rd) number is 47.

92. Answer: B - 32

The series increases by 5 each time, so the next term is $27 + 5 = 32$.

93. Answer: B - 45

Ascending order is 10, 33, 45, 64, 66; the middle (3rd) number is 45.

94. Answer: D - 24

The series increases by 4 each time, so the next term is $20 + 4 = 24$.

95. Answer: D - USBDL

Shift every letter of TRACK forward by 1. This gives USBDL.

96. Answer: D - 37

Rank from bottom = total - rank from top + 1 = $60 - 24 + 1 = 37$.

97. Answer: C - 35

Ascending order is 17, 23, 35, 48, 87; the middle (3rd) number is 35.

98. Answer: A - 52

The series increases by 8 each time, so the next term is $44 + 8 = 52$.

99. Answer: D - FDELQ

Shift every letter of CABIN forward by 3. This gives FDELQ.

100. Answer: A - 31

Rank from bottom = total - rank from top + 1 = $43 - 13 + 1 = 31$.

EXAMGURUX

PRACTICE SET 5

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. Find the 20th term of the arithmetic progression 2, 8, 14, ...

- A. 110
- B. 117
- C. 122
- D. 116

2. Find the HCF of 14 and 18.

- A. 2
- B. 128
- C. 252
- D. 4

3. A rectangle is 9 cm long and 5 cm wide. What is its area?

- A. 14
- B. 28
- C. 45
- D. 54

4. A bag contains 5 red, 7 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{7}{20}$
- B. $\frac{1}{4}$
- C. $\frac{8}{20}$
- D. $\frac{5}{15}$

5. Find the median of: 12, 17, 19, 35, 44.

- A. 19
- B. 17
- C. 25.4
- D. 35

6. A training centre recorded applicants by region: North=280, South=300, East=450, West=320. Which region had the highest number of applicants?

- A. South
- B. North
- C. West
- D. East

7. Two quantities are in the ratio 9:8 and their sum is 357. What is the first quantity?

- A. 181
- B. 168
- C. 189
- D. 198

8. An article costing Rs 2000 is sold at a profit of 20%. Find the selling price.

- A. 2400
- B. 400
- C. 2600
- D. 1600

9. The average of 8 numbers is 33. If the total of the numbers increases by 16, what is the new average?

- A. 31
- B. 34
- C. 35
- D. 49

10. Find the simple interest on Rs 2500 at 6% per annum for 5 years.

- A. 150
- B. 3250
- C. 750
- D. 780

11. A train moves at 60 km/h for 3 hours. How far does it travel?

- A. 180
- B. 63
- C. 120
- D. 210

12. A can complete a job in 24 days and B in 48 days. Working together at constant rates, approximately how many days will they take?

- A. 16.00
- B. 72.00
- C. 24.00
- D. 36.00

13. Solve for x: $9x + 20 = 65$.

- A. 6
- B. 45
- C. 5
- D. 4

14. Find the 9th term of the arithmetic progression 10, 18, 26, ...

- A. 74
- B. 66
- C. 82
- D. 75

15. Find the LCM of 9 and 8.

- A. 1
- B. 72
- C. 73
- D. 74

16. A bag contains 5 red, 9 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{9}{19}$
- B. $\frac{5}{14}$
- C. $\frac{5}{19}$
- D. Option 1

17. Find the median of: 13, 35, 37, 38, 50.

- A. 37
- B. 35
- C. 38
- D. 34.6

18. A training centre recorded applicants by region: North=150, South=380, East=330, West=380. Which region had the highest number of applicants?

- A. North
- B. East
- C. South
- D. West

19. What is 35% of 1200?

- A. 480
- B. 390
- C. 540
- D. 420

20. Two quantities are in the ratio 3:5 and their sum is 192. What is the first quantity?

- A. 75
- B. 67
- C. 120
- D. 72

21. An article costing Rs 400 is sold at a profit of 30%. Find the selling price.

- A. 280
- B. 560
- C. 120
- D. 520

22. The average of 6 numbers is 49. If the total of the numbers increases by 54, what is the new average?

- A. 53.5
- B. 58
- C. 40
- D. 103

23. A train moves at 48 km/h for 2.5 hours. How far does it travel?

- A. 50.5
- B. 144
- C. 72
- D. 120

24. Solve for x: $8x + 19 = 51$.

- A. 5
- B. 4
- C. 32
- D. 3

25. Find the 10th term of the arithmetic progression 7, 15, 23, ...

- A. 71
- B. 87
- C. 79
- D. 80

26. Find the HCF of 19 and 20.

- A. 381
- B. 1
- C. 2
- D. 380

27. A rectangle is 17 cm long and 8 cm wide. What is its area?

- A. 25
- B. 136
- C. 50
- D. 153

28. A bag contains 9 red, 9 blue and 6 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{6}{24}$
- B. $\frac{9}{24}$
- C. $\frac{3}{8}$
- D. $\frac{9}{15}$

29. Find the median of: 13, 14, 15, 19, 33.

- A. 19
- B. 14
- C. 18.8
- D. 15

30. A training centre recorded applicants by region: North=330, South=490, East=280, West=210. Which region had the highest number of applicants?

- A. East
- B. North
- C. West
- D. South

31. What is 25% of 240?

- A. 60
- B. 84
- C. 72
- D. 54

32. Two quantities are in the ratio 7:9 and their sum is 400. What is the first quantity?

- A. 182
- B. 225
- C. 166
- D. 175

33. The average of 5 numbers is 59. If the total of the numbers increases by 35, what is the new average?

- A. 62.5
- B. 66
- C. 94
- D. 52

34. Solve for x: $4x + 17 = 93$.

- A. 20
- B. 76
- C. 19
- D. 18

35. Find the 17th term of the arithmetic progression 11, 16, 21, ...

- A. 86
- B. 91
- C. 96
- D. 92

36. Find the LCM of 16 and 18.

- A. 144
- B. 146
- C. 288
- D. 2

37. A rectangle is 16 cm long and 6 cm wide. What is its area?

- A. 22
- B. 44
- C. 112
- D. 96

38. A bag contains 7 red, 3 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{7}{12}$
- B. $\frac{2}{12}$
- C. $\frac{3}{12}$
- D. $\frac{7}{5}$

39. Find the median of: 14, 16, 18, 28, 49.

- A. 28
- B. 16
- C. 18
- D. 25

40. A training centre recorded applicants by region: North=500, South=120, East=350, West=210. Which region had the highest number of applicants?

- A. East
- B. North
- C. West
- D. South

41. What is 15% of 1200?

- A. 150
- B. 300
- C. 240
- D. 180

42. Two quantities are in the ratio 8:3 and their sum is 253. What is the first quantity?

- A. 69
- B. 181
- C. 184
- D. 192

43. An article costing Rs 1200 is sold at a profit of 15%. Find the selling price.

- A. 1500
- B. 1020
- C. 1380
- D. 180

44. Find the simple interest on Rs 2500 at 6% per annum for 4 years.

- A. 3100
- B. 150
- C. 600
- D. 624

45. A train moves at 36 km/h for 4 hours. How far does it travel?

- A. 162
- B. 108
- C. 144
- D. 40

46. Solve for x: $8x + 13 = 157$.

- A. 17
- B. 19
- C. 18
- D. 144

47. Find the 9th term of the arithmetic progression 3, 10, 17, ...

- A. 66
- B. 60
- C. 59
- D. 52

48. Find the LCM of 9 and 19.

- A. 171
- B. 173
- C. 10
- D. 172

49. A rectangle is 16 cm long and 5 cm wide. What is its area?

- A. 80
- B. 96
- C. 42
- D. 21

50. A bag contains 10 red, 6 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{6}{20}$
- B. $\frac{4}{20}$
- C. $\frac{1}{2}$
- D. $\frac{10}{10}$

51. Find the median of: 23, 35, 38, 46, 52.

- A. 35
- B. 38.8
- C. 38
- D. 46

52. A training centre recorded applicants by region: North=490, South=230, East=190, West=260. Which region had the highest number of applicants?

- A. East
- B. South
- C. West
- D. North

53. What is 35% of 240?

- A. 108
- B. 78
- C. 84
- D. 96

54. Two quantities are in the ratio 5:4 and their sum is 198. What is the first quantity?

- A. 115
- B. 110
- C. 88
- D. 106

55. An article costing Rs 1200 is sold at a profit of 20%. Find the selling price.

- A. 240
- B. 1560
- C. 960
- D. 1440

56. The average of 5 numbers is 33. If the total of the numbers increases by 15, what is the new average?

- A. 34.5
- B. 36
- C. 48
- D. 30

57. Find the simple interest on Rs 2500 at 6% per annum for 2 years.

- A. 312
- B. 2800
- C. 150
- D. 300

58. Solve for x: $3x + 13 = 37$.

- A. 9
- B. 8
- C. 7
- D. 24

59. Find the 19th term of the arithmetic progression 10, 12, 14, ...

- A. 44
- B. 46
- C. 48
- D. 47

60. Find the LCM of 14 and 14.

- A. 0
- B. 28
- C. 14
- D. 196

Logical Capability

61. Arun is the brother of Hari. Hari is the mother of Gopal. How is Arun related to Gopal?

- A. Brother
- B. Maternal uncle
- C. Paternal uncle
- D. Father

62. Statements: All buses are cars. All cars are trains. Which conclusion definitely follows?

- A. All buses are trains
- B. No buses is trains
- C. Some trains are not cars
- D. All trains are buses

63. On which day of the week will 07-11-2029 fall?

- A. Friday
- B. Saturday
- C. Sunday
- D. Wednesday

64. Deepa is the brother of Farah. Farah is the mother of Esha. How is Deepa related to Esha?

- A. Father
- B. Paternal uncle
- C. Brother
- D. Maternal uncle

65. Statements: All buses are books. All books are planes. Which conclusion definitely follows?

- A. No buses is planes
- B. All buses are planes
- C. Some planes are not books
- D. All planes are buses

66. Gopal is the brother of Bala. Bala is the mother of Charan. How is Gopal related to Charan?

- A. Paternal uncle
- B. Father
- C. Brother
- D. Maternal uncle

67. Statements: All cars are trains. All trains are planes. Which conclusion definitely follows?

- A. Some planes are not trains
- B. All cars are planes
- C. No cars is planes
- D. All planes are cars

68. On which day of the week will 10-12-2031 fall?

- A. Wednesday
- B. Sunday
- C. Thursday
- D. Monday

69. Esha is the brother of Gopal. Gopal is the mother of Arun. How is Esha related to Arun?

- A. Paternal uncle
- B. Father
- C. Maternal uncle
- D. Brother

70. Statements: All boats are planes. All planes are buses. Which conclusion definitely follows?

- A. No boats is buses
- B. Some buses are not planes
- C. All boats are buses
- D. All buses are boats

71. What is the smaller angle between the hour and minute hands at 5:20?

- A. 70 degrees
- B. 10 degrees
- C. 120 degrees
- D. 40 degrees

72. Arun is the brother of Farah. Farah is the mother of Bala. How is Arun related to Bala?

- A. Paternal uncle
- B. Father
- C. Brother
- D. Maternal uncle

73. Four candidates D, C, B, A are ranked from 1st to 4th. D ranks ahead of C, C ranks ahead of B, and B ranks ahead of A. Who ranks first?

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

74. Statements: All pens are cycles. All cycles are planes. Which conclusion definitely follows?

- A. All pens are planes
- B. Some planes are not cycles
- C. No pens is planes
- D. All planes are pens

75. On which day of the week will 16-03-2030 fall?

- A. Wednesday
- B. Saturday
- C. Tuesday
- D. Thursday

76. Gopal is the brother of Esha. Esha is the mother of Farah. How is Gopal related to Farah?

- A. Father
- B. Paternal uncle
- C. Maternal uncle
- D. Brother

77. Four candidates A, B, C, D are ranked from 1st to 4th. A ranks ahead of B, B ranks ahead of C, and C ranks ahead of D. Who ranks first?

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

78. Statements: All books are boats. All boats are pens. Which conclusion definitely follows?

- A. Some pens are not boats
- B. No books is pens
- C. All books are pens
- D. All pens are books

79. Bala is the brother of Charan. Charan is the mother of Gopal. How is Bala related to Gopal?

- A. Paternal uncle
- B. Brother
- C. Father
- D. Maternal uncle

80. Statements: All books are cycles. All cycles are pens. Which conclusion definitely follows?

- A. Some pens are not cycles
- B. No books is pens
- C. All books are pens
- D. All pens are books

Mental Reasoning

81. Arrange 75, 76, 25, 40, 41 in ascending order. Which number will be in the middle?

- A. 40
- B. 41
- C. 76
- D. 75

82. Find the next number: 2, 5, 8, 11, 14, ?

- A. 17
- B. 28
- C. 14
- D. 20

83. In a class of 40 students, Meena is 7th from the top. What is her rank from the bottom?

- A. 34
- B. 35
- C. 7
- D. 33

84. Arrange 37, 96, 64, 61, 47 in ascending order. Which number will be in the middle?

- A. 61
- B. 96
- C. 47
- D. 64

85. In a code, each letter is shifted 3 place(s) forward in the alphabet. How is ROUTE coded?

- A. ETUOR
- B. OLRQB
- C. URXWH
- D. VSYXI

86. In a class of 36 students, Meena is 4th from the top. What is her rank from the bottom?

- A. 34
- B. 4
- C. 33
- D. 32

87. Arrange 50, 76, 71, 56, 67 in ascending order. Which number will be in the middle?

- A. 71
- B. 67
- C. 56
- D. 76

88. Find the next number: 13, 15, 17, 19, 21, ?

- A. 21
- B. 25
- C. 23
- D. 42

89. In a class of 37 students, Meena is 5th from the top. What is her rank from the bottom?

- A. 5
- B. 33
- C. 34
- D. 32

90. Arrange 28, 63, 26, 39, 46 in ascending order. Which number will be in the middle?

- A. 63
- B. 39
- C. 28
- D. 46

91. Find the next number: 11, 19, 27, 35, 43, ?

- A. 86
- B. 59
- C. 43
- D. 51

92. In a class of 29 students, Meena is 15th from the top. What is her rank from the bottom?

- A. 17
- B. 16
- C. 14
- D. 15

93. Arrange 24, 53, 90, 59, 92 in ascending order. Which number will be in the middle?

- A. 92
- B. 53
- C. 90
- D. 59

94. Find the next number: 16, 19, 22, 25, 28, ?

- A. 34
- B. 56
- C. 31
- D. 28

95. In a class of 38 students, Meena is 9th from the top. What is her rank from the bottom?

- A. 9
- B. 31
- C. 30
- D. 29

96. Arrange 28, 67, 82, 94, 32 in ascending order. Which number will be in the middle?

- A. 82
- B. 32
- C. 94
- D. 67

97. Find the next number: 8, 14, 20, 26, 32, ?

- A. 64
- B. 32
- C. 44
- D. 38

98. In a code, each letter is shifted 2 place(s) forward in the alphabet. How is CABIN coded?

- A. FDELQ
- B. NIBAC
- C. ECDKP
- D. AYZGL

99. In a class of 43 students, Meena is 20th from the top. What is her rank from the bottom?

- A. 25
- B. 20
- C. 23
- D. 24

100. Arrange 72, 39, 58, 83, 90 in ascending order. Which number will be in the middle?

- A. 72
- B. 83
- C. 90
- D. 58

PRACTICE SET 5 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: D - 116

$$a_n = a + (n-1)d = 2 + (20-1) \times 6 = 116.$$

2. Answer: A - 2

$$\text{HCF}(14,18) = 2; \text{LCM} = (14 \times 18) / 2 = 126. \text{ Therefore the required HCF is 2.}$$

3. Answer: C - 45

$$\text{Area of a rectangle} = \text{length} \times \text{width} = 9 \times 5 = 45 \text{ cm}^2.$$

4. Answer: B - 1/4

$$\text{Probability} = \text{favorable outcomes} / \text{total outcomes} = 5/20 = 1/4.$$

5. Answer: A - 19

The values are already ordered. For 5 observations, the median is the 3rd value, which is 19.

6. Answer: D - East

The largest value in the table is 450, corresponding to East.

7. Answer: C - 189

$$\text{Total parts} = 17. \text{ First quantity} = 9/17 \times 357 = 189.$$

8. Answer: A - 2400

$$\text{SP} = \text{CP} \times (100 + \text{profit}\%) / 100 = 2000 \times 120 / 100 = \text{Rs } 2400.$$

9. Answer: C - 35

$$\text{Increase in average} = \text{increase in total} / \text{number of values} = 16/8 = 2. \text{ New average} = 33+2 = 35.$$

10. Answer: C - 750

$$\text{SI} = \text{PRT} / 100 = 2500 \times 6 \times 5 / 100 = \text{Rs } 750.$$

11. Answer: A - 180

$$\text{Distance} = \text{speed} \times \text{time} = 60 \times 3 = 180 \text{ km.}$$

12. Answer: A - 16.00

$$\text{Combined rate} = 1/24 + 1/48. \text{ Time} = 1 / \text{combined rate} = 16.00 \text{ days.}$$

13. Answer: C - 5

$$9x = 45; \text{ therefore } x = 45/9 = 5.$$

14. Answer: A - 74

$$a_n = a + (n-1)d = 10 + (9-1) \times 8 = 74.$$

15. Answer: B - 72

$$\text{HCF}(9,8) = 1; \text{LCM} = (9 \times 8) / 1 = 72. \text{ Therefore the required LCM is 72.}$$

16. Answer: C - 5/19

$$\text{Probability} = \text{favorable outcomes} / \text{total outcomes} = 5/19 = 5/19.$$

17. Answer: A - 37

The values are already ordered. For 5 observations, the median is the 3rd value, which is 37.

18. Answer: C - South

The largest value in the table is 380, corresponding to South.

19. Answer: D - 420

$$35\% \text{ of } 1200 = (35/100) \times 1200 = 420.$$

20. Answer: D - 72

$$\text{Total parts} = 8. \text{ First quantity} = 3/8 \times 192 = 72.$$

21. Answer: D - 520

$$\text{SP} = \text{CP} \times (100 + \text{profit}\%) / 100 = 400 \times 130 / 100 = \text{Rs } 520.$$

22. Answer: B - 58

$$\text{Increase in average} = \text{increase in total} / \text{number of values} = 54/6 = 9. \text{ New average} = 49+9 = 58.$$

23. Answer: D - 120

$$\text{Distance} = \text{speed} \times \text{time} = 48 \times 2.5 = 120 \text{ km.}$$

24. Answer: B - 4

$8x = 32$; therefore $x = 32/8 = 4$.

25. Answer: C - 79

$a_n = a + (n-1)d = 7 + (10-1) \times 8 = 79$.

26. Answer: B - 1

$HCF(19,20) = 1$; $LCM = (19 \times 20)/1 = 380$. Therefore the required HCF is 1.

27. Answer: B - 136

Area of a rectangle = length $\times$ width = $17 \times 8 = 136 \text{ cm}^2$.

28. Answer: C - 3/8

Probability = favorable outcomes / total outcomes = $9/24 = 3/8$.

29. Answer: D - 15

The values are already ordered. For 5 observations, the median is the 3rd value, which is 15.

30. Answer: D - South

The largest value in the table is 490, corresponding to South.

31. Answer: A - 60

25% of 240 = $(25/100) \times 240 = 60$.

32. Answer: D - 175

Total parts = 16. First quantity = $7/16 \times 400 = 175$.

33. Answer: B - 66

Increase in average = increase in total / number of values = $35/5 = 7$. New average = $59+7 = 66$.

34. Answer: C - 19

$4x = 76$; therefore $x = 76/4 = 19$.

35. Answer: B - 91

$a_n = a + (n-1)d = 11 + (17-1) \times 5 = 91$.

36. Answer: A - 144

$HCF(16,18) = 2$; $LCM = (16 \times 18)/2 = 144$. Therefore the required LCM is 144.

37. Answer: D - 96

Area of a rectangle = length $\times$ width = $16 \times 6 = 96 \text{ cm}^2$.

38. Answer: A - 7/12

Probability = favorable outcomes / total outcomes = $7/12 = 7/12$.

39. Answer: C - 18

The values are already ordered. For 5 observations, the median is the 3rd value, which is 18.

40. Answer: B - North

The largest value in the table is 500, corresponding to North.

41. Answer: D - 180

15% of 1200 = $(15/100) \times 1200 = 180$.

42. Answer: C - 184

Total parts = 11. First quantity = $8/11 \times 253 = 184$.

43. Answer: C - 1380

$SP = CP \times (100 + \text{profit}\%)/100 = 1200 \times 115/100 = \text{Rs } 1380$.

44. Answer: C - 600

$SI = PRT/100 = 2500 \times 6 \times 4/100 = \text{Rs } 600$.

45. Answer: C - 144

Distance = speed $\times$ time = $36 \times 4 = 144 \text{ km}$.

46. Answer: C - 18

$8x = 144$; therefore $x = 144/8 = 18$.

47. Answer: C - 59

$a_n = a + (n-1)d = 3 + (9-1) \times 7 = 59$.

48. Answer: A - 171

$HCF(9,19) = 1$; $LCM = (9 \times 19)/1 = 171$. Therefore the required LCM is 171.

49. Answer: A - 80

Area of a rectangle = length x width = $16 \times 5 = 80 \text{ cm}^2$.

50. Answer: C - 1/2

Probability = favorable outcomes / total outcomes = $10/20 = 1/2$.

51. Answer: C - 38

The values are already ordered. For 5 observations, the median is the 3rd value, which is 38.

52. Answer: D - North

The largest value in the table is 490, corresponding to North.

53. Answer: C - 84

35% of 240 = $(35/100) \times 240 = 84$.

54. Answer: B - 110

Total parts = 9. First quantity = $5/9 \times 198 = 110$.

55. Answer: D - 1440

SP = CP x $(100 + \text{profit}\%)/100 = 1200 \times 120/100 = \text{Rs } 1440$.

56. Answer: B - 36

Increase in average = increase in total / number of values = $15/5 = 3$. New average = $33+3 = 36$.

57. Answer: D - 300

SI = $\text{PRT}/100 = 2500 \times 6 \times 2/100 = \text{Rs } 300$.

58. Answer: B - 8

$3x = 24$; therefore $x = 24/3 = 8$.

59. Answer: B - 46

$a_n = a + (n-1)d = 10 + (19-1) \times 2 = 46$.

60. Answer: C - 14

$\text{HCF}(14,14) = 14$; $\text{LCM} = (14 \times 14)/14 = 14$. Therefore the required LCM is 14.

Logical Capability**61. Answer: B - Maternal uncle**

Arun is the brother of Gopal's mother, so Arun is Gopal's maternal uncle.

62. Answer: A - All buses are trains

If every buses belongs to cars, and every cars belongs to trains, then every buses must also belong to trains.

63. Answer: D - Wednesday

Using standard calendar day calculation, 07-11-2029 falls on Wednesday.

64. Answer: D - Maternal uncle

Deepa is the brother of Esha's mother, so Deepa is Esha's maternal uncle.

65. Answer: B - All buses are planes

If every buses belongs to books, and every books belongs to planes, then every buses must also belong to planes.

66. Answer: D - Maternal uncle

Gopal is the brother of Charan's mother, so Gopal is Charan's maternal uncle.

67. Answer: B - All cars are planes

If every cars belongs to trains, and every trains belongs to planes, then every cars must also belong to planes.

68. Answer: A - Wednesday

Using standard calendar day calculation, 10-12-2031 falls on Wednesday.

69. Answer: C - Maternal uncle

Esha is the brother of Arun's mother, so Esha is Arun's maternal uncle.

70. Answer: C - All boats are buses

If every boats belongs to planes, and every planes belongs to buses, then every boats must also belong to buses.

71. Answer: D - 40 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 40 degrees.

72. Answer: D - Maternal uncle

Arun is the brother of Bala's mother, so Arun is Bala's maternal uncle.

73. Answer: D - D

The statements form the complete order $D > C > B > A$, so D is first.

74. Answer: A - All pens are planes

If every pens belongs to cycles, and every cycles belongs to planes, then every pens must also belong to planes.

75. Answer: B - Saturday

Using standard calendar day calculation, 16-03-2030 falls on Saturday.

76. Answer: C - Maternal uncle

Gopal is the brother of Farah's mother, so Gopal is Farah's maternal uncle.

77. Answer: A - A

The statements form the complete order $A > B > C > D$, so A is first.

78. Answer: C - All books are pens

If every books belongs to boats, and every boats belongs to pens, then every books must also belong to pens.

79. Answer: D - Maternal uncle

Bala is the brother of Gopal's mother, so Bala is Gopal's maternal uncle.

80. Answer: C - All books are pens

If every books belongs to cycles, and every cycles belongs to pens, then every books must also belong to pens.

Mental Reasoning**81. Answer: B - 41**

Ascending order is 25, 40, 41, 75, 76; the middle (3rd) number is 41.

82. Answer: A - 17

The series increases by 3 each time, so the next term is $14 + 3 = 17$.

83. Answer: A - 34

Rank from bottom = total - rank from top + 1 = $40 - 7 + 1 = 34$.

84. Answer: A - 61

Ascending order is 37, 47, 61, 64, 96; the middle (3rd) number is 61.

85. Answer: C - URXWH

Shift every letter of ROUTE forward by 3. This gives URXWH.

86. Answer: C - 33

Rank from bottom = total - rank from top + 1 = $36 - 4 + 1 = 33$.

87. Answer: B - 67

Ascending order is 50, 56, 67, 71, 76; the middle (3rd) number is 67.

88. Answer: C - 23

The series increases by 2 each time, so the next term is $21 + 2 = 23$.

89. Answer: B - 33

Rank from bottom = total - rank from top + 1 = $37 - 5 + 1 = 33$.

90. Answer: B - 39

Ascending order is 26, 28, 39, 46, 63; the middle (3rd) number is 39.

91. Answer: D - 51

The series increases by 8 each time, so the next term is $43 + 8 = 51$.

92. Answer: D - 15

Rank from bottom = total - rank from top + 1 = $29 - 15 + 1 = 15$.

93. Answer: D - 59

Ascending order is 24, 53, 59, 90, 92; the middle (3rd) number is 59.

94. Answer: C - 31

The series increases by 3 each time, so the next term is $28 + 3 = 31$.

95. Answer: C - 30

Rank from bottom = total - rank from top + 1 = $38 - 9 + 1 = 30$.

96. Answer: D - 67

Ascending order is 28, 32, 67, 82, 94; the middle (3rd) number is 67.

97. Answer: D - 38

The series increases by 6 each time, so the next term is $32 + 6 = 38$.

98. Answer: C - ECDKP

Shift every letter of CABIN forward by 2. This gives ECDKP.

99. Answer: D - 24

Rank from bottom = total - rank from top + 1 = $43 - 20 + 1 = 24$.

100. Answer: A - 72

Ascending order is 39, 58, 72, 83, 90; the middle (3rd) number is 72.

EXAMGURUX

PRACTICE SET 6

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. A rectangle is 17 cm long and 16 cm wide. What is its area?

- A. 33
- B. 289
- C. 272
- D. 66

2. A bag contains 6 red, 10 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{6}{13}$
- B. $\frac{3}{19}$
- C. $\frac{6}{19}$
- D. $\frac{10}{19}$

3. Find the median of: 15, 36, 38, 39, 40.

- A. 38
- B. 33.6
- C. 36
- D. 39

4. A training centre recorded applicants by region: North=440, South=260, East=240, West=440. Which region had the highest number of applicants?

- A. North
- B. West
- C. East
- D. South

5. Two quantities are in the ratio 8:5 and their sum is 338. What is the first quantity?

- A. 216
- B. 130
- C. 208
- D. 203

6. An article costing Rs 500 is sold at a profit of 10%. Find the selling price.

- A. 600
- B. 50
- C. 550
- D. 450

7. The average of 6 numbers is 48. If the total of the numbers increases by 54, what is the new average?

- A. 57
- B. 102
- C. 52.5
- D. 39

8. Find the simple interest on Rs 5000 at 6% per annum for 4 years.

- A. 6200
- B. 1224
- C. 300
- D. 1200

9. A train moves at 60 km/h for 1.5 hours. How far does it travel?

- A. 61.5
- B. 30
- C. 120
- D. 90

10. A can complete a job in 24 days and B in 30 days. Working together at constant rates, approximately how many days will they take?

- A. 13.33
- B. 27.00
- C. 54.00
- D. 6.00

11. Solve for x: $2x + 8 = 42$.

- A. 16
- B. 17
- C. 18
- D. 34

12. Find the 15th term of the arithmetic progression 11, 16, 21, ...

- A. 76
- B. 82
- C. 81
- D. 86

13. Find the HCF of 17 and 15.

- A. 256
- B. 1
- C. 2
- D. 255

14. A rectangle is 24 cm long and 13 cm wide. What is its area?

- A. 312
- B. 37
- C. 336
- D. 74

15. A bag contains 10 red, 4 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. 10/9
- B. 5/19
- C. 4/19
- D. 10/19

16. Find the median of: 10, 23, 48, 50, 59.

- A. 48
- B. 50
- C. 23
- D. 38

17. A training centre recorded applicants by region: North=410, South=400, East=250, West=240. Which region had the highest number of applicants?

- A. West
- B. North
- C. South
- D. East

18. Two quantities are in the ratio 8:5 and their sum is 273. What is the first quantity?

- A. 168
- B. 176
- C. 105
- D. 163

19. An article costing Rs 600 is sold at a profit of 25%. Find the selling price.

- A. 810
- B. 750
- C. 150
- D. 450

20. The average of 6 numbers is 19. If the total of the numbers increases by 48, what is the new average?

- A. 23
- B. 67
- C. 27
- D. 11

21. A train moves at 72 km/h for 4 hours. How far does it travel?

- A. 288
- B. 76
- C. 324
- D. 216

22. A can complete a job in 18 days and B in 40 days. Working together at constant rates, approximately how many days will they take?

- A. 12.41
- B. 22.00
- C. 58.00
- D. 29.00

23. Solve for x: $5x + 4 = 74$.

- A. 15
- B. 13
- C. 14
- D. 70

24. Find the 9th term of the arithmetic progression 15, 18, 21, ...

- A. 36
- B. 39
- C. 40
- D. 42

25. Find the LCM of 17 and 17.

- A. 17
- B. 0
- C. 34
- D. 289

26. A rectangle is 18 cm long and 9 cm wide. What is its area?

- A. 54
- B. 162
- C. 180
- D. 27

27. A bag contains 7 red, 4 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{5}{16}$
- B. $\frac{4}{16}$
- C. $\frac{7}{9}$
- D. $\frac{7}{16}$

28. Find the median of: 28, 30, 40, 50, 51.

- A. 39.8
- B. 40
- C. 30
- D. 50

29. A training centre recorded applicants by region: North=380, South=160, East=160, West=240. Which region had the highest number of applicants?

- A. South
- B. West
- C. East
- D. North

30. What is the value of x? Statement I: $2x = 4$. Statement II: $x^2 = 4$ and x is positive.

- A. Either statement alone is sufficient
- B. Statement I alone is sufficient
- C. Both statements together are required
- D. Statement II alone is sufficient

31. What is 35% of 960?

- A. 312
- B. 384
- C. 336
- D. 432

32. Two quantities are in the ratio 7:5 and their sum is 324. What is the first quantity?

- A. 135
- B. 196
- C. 184
- D. 189

33. An article costing Rs 2000 is sold at a profit of 10%. Find the selling price.

- A. 1800
- B. 2200
- C. 2400
- D. 200

34. The average of 5 numbers is 53. If the total of the numbers increases by 25, what is the new average?

- A. 58
- B. 55.5
- C. 78
- D. 48

35. Find the simple interest on Rs 4000 at 6% per annum for 5 years.

- A. 1200
- B. 1230
- C. 5200
- D. 240

36. A train moves at 45 km/h for 3.5 hours. How far does it travel?

- A. 157.5
- B. 48.5
- C. 112.5
- D. 180

37. A can complete a job in 10 days and B in 12 days. Working together at constant rates, approximately how many days will they take?

- A. 5.45
- B. 22.00
- C. 11.00
- D. 2.00

38. Solve for x: $5x + 18 = 103$.

- A. 17
- B. 16
- C. 18
- D. 85

39. Find the 16th term of the arithmetic progression 10, 18, 26, ...

- A. 122
- B. 138
- C. 130
- D. 131

40. Find the HCF of 9 and 16.

- A. 7
- B. 145
- C. 1
- D. 144

41. A rectangle is 17 cm long and 7 cm wide. What is its area?

- A. 24
- B. 48
- C. 136
- D. 119

42. A bag contains 9 red, 5 blue and 7 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{7}{21}$
- B. $\frac{3}{7}$
- C. $\frac{5}{21}$
- D. $\frac{9}{12}$

43. Find the median of: 11, 30, 40, 51, 54.

- A. 40
- B. 37.2
- C. 30
- D. 51

44. A training centre recorded applicants by region: North=420, South=340, East=220, West=280. Which region had the highest number of applicants?

- A. South
- B. East
- C. West
- D. North

45. What is 10% of 800?

- A. 60
- B. 80
- C. 160
- D. 120

46. Two quantities are in the ratio 5:2 and their sum is 119. What is the first quantity?

- A. 83
- B. 90
- C. 34
- D. 85

47. An article costing Rs 400 is sold at a profit of 20%. Find the selling price.

- A. 80
- B. 520
- C. 320
- D. 480

48. The average of 5 numbers is 38. If the total of the numbers increases by 20, what is the new average?

- A. 58
- B. 34
- C. 40
- D. 42

49. Find the simple interest on Rs 5000 at 6% per annum for 5 years.

- A. 6500
- B. 300
- C. 1530
- D. 1500

50. A can complete a job in 15 days and B in 16 days. Working together at constant rates, approximately how many days will they take?

- A. 31.00
- B. 1.00
- C. 7.74
- D. 15.50

51. Solve for x: $6x + 5 = 83$.

- A. 14
- B. 12
- C. 78
- D. 13

52. Find the 10th term of the arithmetic progression 5, 12, 19, ...

- A. 69
- B. 61
- C. 75
- D. 68

53. Find the HCF of 11 and 20.

- A. 220
- B. 1
- C. 9
- D. 221

54. A rectangle is 15 cm long and 12 cm wide. What is its area?

- A. 54
- B. 27
- C. 180
- D. 195

55. A bag contains 7 red, 5 blue and 6 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $5/18$
- B. $7/18$
- C. $7/11$
- D. $6/18$

56. Find the median of: 20, 23, 27, 35, 50.

- A. 23
- B. 31
- C. 35
- D. 27

57. A training centre recorded applicants by region: North=420, South=130, East=200, West=140. Which region had the highest number of applicants?

- A. South
- B. West
- C. East
- D. North

58. Two quantities are in the ratio 7:4 and their sum is 99. What is the first quantity?

- A. 63
- B. 70
- C. 59
- D. 36

59. An article costing Rs 2000 is sold at a profit of 25%. Find the selling price.

- A. 2700
- B. 2500
- C. 1500
- D. 500

60. The average of 8 numbers is 36. If the total of the numbers increases by 72, what is the new average?

- A. 45
- B. 108
- C. 27
- D. 40.5

Logical Capability

61. On which day of the week will 27-11-2028 fall?

- A. Friday
- B. Tuesday
- C. Monday
- D. Saturday

62. Farah is the brother of Hari. Hari is the mother of Deepa. How is Farah related to Deepa?

- A. Brother
- B. Maternal uncle
- C. Father
- D. Paternal uncle

63. Statements: All trains are buses. All buses are cars. Which conclusion definitely follows?

- A. All cars are trains
- B. No trains is cars
- C. All trains are cars
- D. Some cars are not buses

64. What is the smaller angle between the hour and minute hands at 3:00?

- A. 90 degrees
- B. 120 degrees
- C. 60 degrees
- D. 0 degrees

65. Deepa is the brother of Charan. Charan is the mother of Arun. How is Deepa related to Arun?

- A. Maternal uncle
- B. Father
- C. Paternal uncle
- D. Brother

66. Statements: All boats are buses. All buses are cycles. Which conclusion definitely follows?

- A. No boats is cycles
- B. Some cycles are not buses
- C. All cycles are boats
- D. All boats are cycles

67. On which day of the week will 15-12-2028 fall?

- A. Friday
- B. Monday
- C. Tuesday
- D. Saturday

68. Charan is the brother of Deepa. Deepa is the mother of Gopal. How is Charan related to Gopal?

- A. Father
- B. Brother
- C. Paternal uncle
- D. Maternal uncle

69. Statements: All boats are pens. All pens are trains. Which conclusion definitely follows?

- A. No boats is trains
- B. Some trains are not pens
- C. All boats are trains
- D. All trains are boats

70. What is the smaller angle between the hour and minute hands at 8:30?

- A. 75 degrees
- B. 105 degrees
- C. 45 degrees
- D. 0 degrees

71. Bala is the brother of Gopal. Gopal is the mother of Farah. How is Bala related to Farah?

- A. Father
- B. Maternal uncle
- C. Brother
- D. Paternal uncle

72. Statements: All cars are planes. All planes are pens. Which conclusion definitely follows?

- A. All cars are pens
- B. Some pens are not planes
- C. No cars is pens
- D. All pens are cars

73. On which day of the week will 27-10-2029 fall?

- A. Monday
- B. Friday
- C. Sunday
- D. Saturday

74. Farah is the brother of Deepa. Deepa is the mother of Arun. How is Farah related to Arun?

- A. Maternal uncle
- B. Father
- C. Paternal uncle
- D. Brother

75. Four candidates C, A, D, B are ranked from 1st to 4th. C ranks ahead of A, A ranks ahead of D, and D ranks ahead of B. Who ranks first?

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

76. Statements: All buses are trains. All trains are planes. Which conclusion definitely follows?

- A. No buses is planes
- B. All planes are buses
- C. All buses are planes
- D. Some planes are not trains

77. What is the smaller angle between the hour and minute hands at 8:00?

- A. 90 degrees
- B. 150 degrees
- C. 120 degrees
- D. 0 degrees

78. Arun is the brother of Hari. Hari is the mother of Deepa. How is Arun related to Deepa?

- A. Paternal uncle
- B. Maternal uncle
- C. Father
- D. Brother

79. Statements: All boats are planes. All planes are books. Which conclusion definitely follows?

- A. All boats are books
- B. All books are boats
- C. Some books are not planes
- D. No boats is books

80. On which day of the week will 07-04-2031 fall?

- A. Wednesday
- B. Sunday
- C. Thursday
- D. Monday

Mental Reasoning

81. In a class of 52 students, Meena is 37th from the top. What is her rank from the bottom?

- A. 17
- B. 37
- C. 16
- D. 15

82. Arrange 35, 17, 14, 56, 87 in ascending order. Which number will be in the middle?

- A. 56
- B. 87
- C. 35
- D. 17

83. In a class of 37 students, Meena is 7th from the top. What is her rank from the bottom?

- A. 31
- B. 32
- C. 7
- D. 30

84. Arrange 75, 62, 66, 25, 84 in ascending order. Which number will be in the middle?

- A. 62
- B. 66
- C. 75
- D. 84

85. In a class of 25 students, Meena is 3th from the top. What is her rank from the bottom?

- A. 22
- B. 23
- C. 24
- D. 3

86. Arrange 10, 68, 83, 13, 91 in ascending order. Which number will be in the middle?

- A. 68
- B. 91
- C. 13
- D. 83

87. Find the next number: 12, 17, 22, 27, 32, ?

- A. 64
- B. 37
- C. 32
- D. 42

88. In a class of 39 students, Meena is 3th from the top. What is her rank from the bottom?

- A. 37
- B. 38
- C. 3
- D. 36

89. Arrange 79, 54, 48, 69, 34 in ascending order. Which number will be in the middle?

- A. 69
- B. 48
- C. 54
- D. 79

90. Find the next number: 9, 11, 13, 15, 17, ?

- A. 21
- B. 19
- C. 34
- D. 17

91. In a class of 43 students, Meena is 10th from the top. What is her rank from the bottom?

- A. 33
- B. 35
- C. 10
- D. 34

92. Arrange 53, 95, 67, 19, 59 in ascending order. Which number will be in the middle?

- A. 67
- B. 59
- C. 53
- D. 95

93. Find the next number: 5, 9, 13, 17, 21, ?

- A. 42
- B. 29
- C. 25
- D. 21

94. In a class of 40 students, Meena is 25th from the top. What is her rank from the bottom?

- A. 25
- B. 15
- C. 16
- D. 17

95. Arrange 77, 92, 59, 71, 72 in ascending order. Which number will be in the middle?

- A. 72
- B. 71
- C. 77
- D. 92

96. In a class of 25 students, Meena is 13th from the top. What is her rank from the bottom?

- A. 12
- B. 13
- C. 15
- D. 14

97. Arrange 45, 13, 32, 53, 78 in ascending order. Which number will be in the middle?

- A. 78
- B. 53
- C. 45
- D. 32

98. Find the next number: 13, 17, 21, 25, 29, ?

- A. 58
- B. 29
- C. 37
- D. 33

99. In a class of 54 students, Meena is 11th from the top. What is her rank from the bottom?

- A. 43
- B. 45
- C. 44
- D. 11

100. Arrange 94, 23, 66, 35, 30 in ascending order. Which number will be in the middle?

- A. 30
- B. 66
- C. 94
- D. 35

PRACTICE SET 6 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: C - 272

Area of a rectangle = length x width = $17 \times 16 = 272 \text{ cm}^2$.

2. Answer: C - 6/19

Probability = favorable outcomes / total outcomes = $6/19 = 6/19$.

3. Answer: A - 38

The values are already ordered. For 5 observations, the median is the 3rd value, which is 38.

4. Answer: A - North

The largest value in the table is 440, corresponding to North.

5. Answer: C - 208

Total parts = 13. First quantity = $8/13 \times 338 = 208$.

6. Answer: C - 550

SP = CP x $(100 + \text{profit}\%)/100 = 500 \times 110/100 = \text{Rs } 550$.

7. Answer: A - 57

Increase in average = increase in total / number of values = $54/6 = 9$. New average = $48+9 = 57$.

8. Answer: D - 1200

SI = $\text{PRT}/100 = 5000 \times 6 \times 4/100 = \text{Rs } 1200$.

9. Answer: D - 90

Distance = speed x time = $60 \times 1.5 = 90 \text{ km}$.

10. Answer: A - 13.33

Combined rate = $1/24 + 1/30$. Time = $1 / \text{combined rate} = 13.33 \text{ days}$.

11. Answer: B - 17

$2x = 34$; therefore $x = 34/2 = 17$.

12. Answer: C - 81

$a_n = a + (n-1)d = 11 + (15-1) \times 5 = 81$.

13. Answer: B - 1

$\text{HCF}(17,15) = 1$; $\text{LCM} = (17 \times 15)/1 = 255$. Therefore the required HCF is 1.

14. Answer: A - 312

Area of a rectangle = length x width = $24 \times 13 = 312 \text{ cm}^2$.

15. Answer: D - 10/19

Probability = favorable outcomes / total outcomes = $10/19 = 10/19$.

16. Answer: A - 48

The values are already ordered. For 5 observations, the median is the 3rd value, which is 48.

17. Answer: B - North

The largest value in the table is 410, corresponding to North.

18. Answer: A - 168

Total parts = 13. First quantity = $8/13 \times 273 = 168$.

19. Answer: B - 750

SP = CP x $(100 + \text{profit}\%)/100 = 600 \times 125/100 = \text{Rs } 750$.

20. Answer: C - 27

Increase in average = increase in total / number of values = $48/6 = 8$. New average = $19+8 = 27$.

21. Answer: A - 288

Distance = speed x time = $72 \times 4 = 288 \text{ km}$.

22. Answer: A - 12.41

Combined rate = $1/18 + 1/40$. Time = $1 / \text{combined rate} = 12.41 \text{ days}$.

23. Answer: C - 14

$5x = 70$; therefore $x = 70/5 = 14$.

24. Answer: B - 39

$$a_n = a + (n-1)d = 15 + (9-1) \times 3 = 39.$$

25. Answer: A - 17

$$\text{HCF}(17,17) = 17; \text{LCM} = (17 \times 17) / 17 = 17. \text{ Therefore the required LCM is } 17.$$

26. Answer: B - 162

$$\text{Area of a rectangle} = \text{length} \times \text{width} = 18 \times 9 = 162 \text{ cm}^2.$$

27. Answer: D - 7/16

$$\text{Probability} = \text{favorable outcomes} / \text{total outcomes} = 7/16 = 7/16.$$

28. Answer: B - 40

The values are already ordered. For 5 observations, the median is the 3rd value, which is 40.

29. Answer: D - North

The largest value in the table is 380, corresponding to North.

30. Answer: A - Either statement alone is sufficient

I gives $x=2$. II gives $x=\sqrt{4}=2$ because x is stated positive. Hence either statement alone is sufficient.

31. Answer: C - 336

$$35\% \text{ of } 960 = (35/100) \times 960 = 336.$$

32. Answer: D - 189

$$\text{Total parts} = 12. \text{ First quantity} = 7/12 \times 324 = 189.$$

33. Answer: B - 2200

$$\text{SP} = \text{CP} \times (100 + \text{profit}\%) / 100 = 2000 \times 110 / 100 = \text{Rs } 2200.$$

34. Answer: A - 58

$$\text{Increase in average} = \text{increase in total} / \text{number of values} = 25/5 = 5. \text{ New average} = 53+5 = 58.$$

35. Answer: A - 1200

$$\text{SI} = \text{PRT} / 100 = 4000 \times 6 \times 5 / 100 = \text{Rs } 1200.$$

36. Answer: A - 157.5

$$\text{Distance} = \text{speed} \times \text{time} = 45 \times 3.5 = 157.5 \text{ km}.$$

37. Answer: A - 5.45

$$\text{Combined rate} = 1/10 + 1/12. \text{ Time} = 1 / \text{combined rate} = 5.45 \text{ days}.$$

38. Answer: A - 17

$$5x = 85; \text{ therefore } x = 85/5 = 17.$$

39. Answer: C - 130

$$a_n = a + (n-1)d = 10 + (16-1) \times 8 = 130.$$

40. Answer: C - 1

$$\text{HCF}(9,16) = 1; \text{LCM} = (9 \times 16) / 1 = 144. \text{ Therefore the required HCF is } 1.$$

41. Answer: D - 119

$$\text{Area of a rectangle} = \text{length} \times \text{width} = 17 \times 7 = 119 \text{ cm}^2.$$

42. Answer: B - 3/7

$$\text{Probability} = \text{favorable outcomes} / \text{total outcomes} = 9/21 = 3/7.$$

43. Answer: A - 40

The values are already ordered. For 5 observations, the median is the 3rd value, which is 40.

44. Answer: D - North

The largest value in the table is 420, corresponding to North.

45. Answer: B - 80

$$10\% \text{ of } 800 = (10/100) \times 800 = 80.$$

46. Answer: D - 85

$$\text{Total parts} = 7. \text{ First quantity} = 5/7 \times 119 = 85.$$

47. Answer: D - 480

$$\text{SP} = \text{CP} \times (100 + \text{profit}\%) / 100 = 400 \times 120 / 100 = \text{Rs } 480.$$

48. Answer: D - 42

$$\text{Increase in average} = \text{increase in total} / \text{number of values} = 20/5 = 4. \text{ New average} = 38+4 = 42.$$

49. Answer: D - 1500

$SI = \frac{PRT}{100} = 5000 \times 6 \times 5/100 = \text{Rs } 1500.$

50. Answer: C - 7.74

Combined rate = $1/15 + 1/16$. Time = $1 / \text{combined rate} = 7.74$ days.

51. Answer: D - 13

$6x = 78$; therefore $x = 78/6 = 13$.

52. Answer: D - 68

$a_n = a + (n-1)d = 5 + (10-1) \times 7 = 68.$

53. Answer: B - 1

$HCF(11,20) = 1$; $LCM = (11 \times 20)/1 = 220$. Therefore the required HCF is 1.

54. Answer: C - 180

Area of a rectangle = length $\times$ width = $15 \times 12 = 180 \text{ cm}^2$.

55. Answer: B - 7/18

Probability = favorable outcomes / total outcomes = $7/18 = 7/18$.

56. Answer: D - 27

The values are already ordered. For 5 observations, the median is the 3rd value, which is 27.

57. Answer: D - North

The largest value in the table is 420, corresponding to North.

58. Answer: A - 63

Total parts = 11. First quantity = $7/11 \times 99 = 63$.

59. Answer: B - 2500

$SP = CP \times (100 + \text{profit}\%)/100 = 2000 \times 125/100 = \text{Rs } 2500.$

60. Answer: A - 45

Increase in average = increase in total / number of values = $72/8 = 9$. New average = $36+9 = 45$.

Logical Capability**61. Answer: C - Monday**

Using standard calendar day calculation, 27-11-2028 falls on Monday.

62. Answer: B - Maternal uncle

Farah is the brother of Deepa's mother, so Farah is Deepa's maternal uncle.

63. Answer: C - All trains are cars

If every trains belongs to buses, and every buses belongs to cars, then every trains must also belong to cars.

64. Answer: A - 90 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 90 degrees.

65. Answer: A - Maternal uncle

Deepa is the brother of Arun's mother, so Deepa is Arun's maternal uncle.

66. Answer: D - All boats are cycles

If every boats belongs to buses, and every buses belongs to cycles, then every boats must also belong to cycles.

67. Answer: A - Friday

Using standard calendar day calculation, 15-12-2028 falls on Friday.

68. Answer: D - Maternal uncle

Charan is the brother of Gopal's mother, so Charan is Gopal's maternal uncle.

69. Answer: C - All boats are trains

If every boats belongs to pens, and every pens belongs to trains, then every boats must also belong to trains.

70. Answer: A - 75 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 75 degrees.

71. Answer: B - Maternal uncle

Bala is the brother of Farah's mother, so Bala is Farah's maternal uncle.

72. Answer: A - All cars are pens

If every cars belongs to planes, and every planes belongs to pens, then every cars must also belong to pens.

73. Answer: D - Saturday

Using standard calendar day calculation, 27-10-2029 falls on Saturday.

74. Answer: A - Maternal uncle

Farah is the brother of Arun's mother, so Farah is Arun's maternal uncle.

75. Answer: D - C

The statements form the complete order $C > A > D > B$, so C is first.

76. Answer: C - All buses are planes

If every buses belongs to trains, and every trains belongs to planes, then every buses must also belong to planes.

77. Answer: C - 120 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 120 degrees.

78. Answer: B - Maternal uncle

Arun is the brother of Deepa's mother, so Arun is Deepa's maternal uncle.

79. Answer: A - All boats are books

If every boats belongs to planes, and every planes belongs to books, then every boats must also belong to books.

80. Answer: D - Monday

Using standard calendar day calculation, 07-04-2031 falls on Monday.

Mental Reasoning**81. Answer: C - 16**

Rank from bottom = total - rank from top + 1 = $52 - 37 + 1 = 16$.

82. Answer: C - 35

Ascending order is 14, 17, 35, 56, 87; the middle (3rd) number is 35.

83. Answer: A - 31

Rank from bottom = total - rank from top + 1 = $37 - 7 + 1 = 31$.

84. Answer: B - 66

Ascending order is 25, 62, 66, 75, 84; the middle (3rd) number is 66.

85. Answer: B - 23

Rank from bottom = total - rank from top + 1 = $25 - 3 + 1 = 23$.

86. Answer: A - 68

Ascending order is 10, 13, 68, 83, 91; the middle (3rd) number is 68.

87. Answer: B - 37

The series increases by 5 each time, so the next term is $32 + 5 = 37$.

88. Answer: A - 37

Rank from bottom = total - rank from top + 1 = $39 - 3 + 1 = 37$.

89. Answer: C - 54

Ascending order is 34, 48, 54, 69, 79; the middle (3rd) number is 54.

90. Answer: B - 19

The series increases by 2 each time, so the next term is $17 + 2 = 19$.

91. Answer: D - 34

Rank from bottom = total - rank from top + 1 = $43 - 10 + 1 = 34$.

92. Answer: B - 59

Ascending order is 19, 53, 59, 67, 95; the middle (3rd) number is 59.

93. Answer: C - 25

The series increases by 4 each time, so the next term is $21 + 4 = 25$.

94. Answer: C - 16

Rank from bottom = total - rank from top + 1 = $40 - 25 + 1 = 16$.

95. Answer: A - 72

Ascending order is 59, 71, 72, 77, 92; the middle (3rd) number is 72.

96. Answer: B - 13

Rank from bottom = total - rank from top + 1 = $25 - 13 + 1 = 13$.

97. Answer: C - 45

Ascending order is 13, 32, 45, 53, 78; the middle (3rd) number is 45.

98. Answer: D - 33

The series increases by 4 each time, so the next term is $29 + 4 = 33$.

99. Answer: C - 44

Rank from bottom = total - rank from top + 1 = $54 - 11 + 1 = 44$.

100. Answer: D - 35

Ascending order is 23, 30, 35, 66, 94; the middle (3rd) number is 35.

EXAMGURUX

PRACTICE SET 7

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. Find the simple interest on Rs 2000 at 8% per annum for 2 years.

- A. 336
- B. 160
- C. 320
- D. 2320

2. A train moves at 45 km/h for 4 hours. How far does it travel?

- A. 49
- B. 202.5
- C. 135
- D. 180

3. Solve for x: $7x + 16 = 86$.

- A. 70
- B. 9
- C. 10
- D. 11

4. Find the 20th term of the arithmetic progression 13, 15, 17, ...

- A. 51
- B. 53
- C. 49
- D. 52

5. Find the LCM of 7 and 24.

- A. 169
- B. 168
- C. 170
- D. 17

6. A rectangle is 16 cm long and 14 cm wide. What is its area?

- A. 60
- B. 224
- C. 30
- D. 240

7. A bag contains 9 red, 5 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{3}{17}$
- B. $\frac{9}{8}$
- C. $\frac{9}{17}$
- D. $\frac{5}{17}$

8. Find the median of: 19, 20, 21, 32, 33.

- A. 32
- B. 25
- C. 20
- D. 21

9. A training centre recorded applicants by region: North=260, South=480, East=200, West=430. Which region had the highest number of applicants?

- A. East
- B. South
- C. North
- D. West

10. What is 30% of 1200?

- A. 330
- B. 480
- C. 360
- D. 420

11. Two quantities are in the ratio 7:3 and their sum is 250. What is the first quantity?

- A. 175
- B. 182
- C. 172
- D. 75

12. The average of 6 numbers is 43. If the total of the numbers increases by 42, what is the new average?

- A. 50
- B. 36
- C. 85
- D. 46.5

13. Find the simple interest on Rs 1500 at 10% per annum for 5 years.

- A. 800
- B. 150
- C. 2250
- D. 750

14. A can complete a job in 6 days and B in 16 days. Working together at constant rates, approximately how many days will they take?

- A. 4.36
- B. 10.00
- C. 22.00
- D. 11.00

15. Solve for x: $7x + 7 = 175$.

- A. 25
- B. 24
- C. 168
- D. 23

16. Find the HCF of 8 and 12.

- A. 4
- B. 28
- C. 5
- D. 96

17. A rectangle is 20 cm long and 15 cm wide. What is its area?

- A. 35
- B. 320
- C. 300
- D. 70

18. A bag contains 9 red, 6 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{5}{20}$
- B. $\frac{9}{20}$
- C. $\frac{6}{20}$
- D. $\frac{9}{11}$

19. Find the median of: 32, 36, 39, 49, 56.

- A. 36
- B. 39
- C. 49
- D. 42.4

20. A training centre recorded applicants by region: North=280, South=280, East=220, West=440. Which region had the highest number of applicants?

- A. South
- B. East
- C. West
- D. North

21. What is 12.5% of 240?

- A. 30
- B. 54
- C. 42
- D. 24

22. Two quantities are in the ratio 2:9 and their sum is 187. What is the first quantity?

- A. 36
- B. 153
- C. 34
- D. 25

23. An article costing Rs 1000 is sold at a profit of 25%. Find the selling price.

- A. 1350
- B. 1250
- C. 750
- D. 250

24. The average of 8 numbers is 19. If the total of the numbers increases by 40, what is the new average?

- A. 24
- B. 21.5
- C. 14
- D. 59

25. Find the simple interest on Rs 1500 at 6% per annum for 4 years.

- A. 90
- B. 1860
- C. 384
- D. 360

26. A train moves at 40 km/h for 3.5 hours. How far does it travel?

- A. 160
- B. 140
- C. 100
- D. 43.5

27. A can complete a job in 24 days and B in 36 days. Working together at constant rates, approximately how many days will they take?

- A. 14.40
- B. 30.00
- C. 60.00
- D. 12.00

28. Solve for x: $2x + 9 = 23$.

- A. 6
- B. 8
- C. 14
- D. 7

29. Find the 11th term of the arithmetic progression 14, 20, 26, ...

- A. 80
- B. 75
- C. 74
- D. 68

30. Find the HCF of 8 and 8.

- A. 64
- B. 8
- C. 16
- D. 0

31. A rectangle is 17 cm long and 9 cm wide. What is its area?

- A. 153
- B. 26
- C. 170
- D. 52

- 32. A bag contains 4 red, 6 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?**
- A. $\frac{8}{18}$
 - B. $\frac{2}{9}$
 - C. $\frac{4}{14}$
 - D. $\frac{6}{18}$
- 33. Find the median of: 13, 28, 31, 43, 49.**
- A. 32.8
 - B. 31
 - C. 28
 - D. 43
- 34. A training centre recorded applicants by region: North=480, South=260, East=420, West=250. Which region had the highest number of applicants?**
- A. West
 - B. North
 - C. South
 - D. East
- 35. What is 10% of 720?**
- A. 54
 - B. 72
 - C. 144
 - D. 108
- 36. Two quantities are in the ratio 8:9 and their sum is 476. What is the first quantity?**
- A. 215
 - B. 224
 - C. 232
 - D. 252
- 37. An article costing Rs 500 is sold at a profit of 15%. Find the selling price.**
- A. 425
 - B. 575
 - C. 75
 - D. 625
- 38. The average of 10 numbers is 22. If the total of the numbers increases by 50, what is the new average?**
- A. 24.5
 - B. 27
 - C. 17
 - D. 72
- 39. Find the simple interest on Rs 2000 at 4% per annum for 2 years.**
- A. 2160
 - B. 168
 - C. 160
 - D. 80

40. A train moves at 72 km/h for 1.5 hours. How far does it travel?

- A. 36
- B. 108
- C. 144
- D. 73.5

41. Solve for x: $8x + 8 = 152$.

- A. 18
- B. 144
- C. 17
- D. 19

42. Find the 13th term of the arithmetic progression 4, 6, 8, ...

- A. 29
- B. 26
- C. 30
- D. 28

43. Find the LCM of 19 and 19.

- A. 19
- B. 361
- C. 38
- D. 0

44. A rectangle is 20 cm long and 6 cm wide. What is its area?

- A. 140
- B. 120
- C. 26
- D. 52

45. A bag contains 8 red, 4 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{4}{17}$
- B. $\frac{8}{17}$
- C. $\frac{8}{9}$
- D. $\frac{5}{17}$

46. Find the median of: 30, 39, 40, 50, 53.

- A. 42.4
- B. 50
- C. 39
- D. 40

47. A training centre recorded applicants by region: North=500, South=200, East=490, West=410. Which region had the highest number of applicants?

- A. South
- B. North
- C. East
- D. West

48. Two quantities are in the ratio 5:3 and their sum is 80. What is the first quantity?

- A. 50
- B. 55
- C. 47
- D. 30

49. The average of 7 numbers is 29. If the total of the numbers increases by 56, what is the new average?

- A. 85
- B. 21
- C. 33
- D. 37

50. Find the simple interest on Rs 1000 at 5% per annum for 4 years.

- A. 1200
- B. 200
- C. 220
- D. 50

51. A can complete a job in 10 days and B in 40 days. Working together at constant rates, approximately how many days will they take?

- A. 30.00
- B. 50.00
- C. 8.00
- D. 25.00

52. Solve for x: $7x + 4 = 88$.

- A. 11
- B. 12
- C. 84
- D. 13

53. Find the 20th term of the arithmetic progression 9, 12, 15, ...

- A. 63
- B. 69
- C. 66
- D. 67

54. Find the HCF of 9 and 17.

- A. 8
- B. 1
- C. 154
- D. 153

55. A rectangle is 11 cm long and 5 cm wide. What is its area?

- A. 66
- B. 32
- C. 16
- D. 55

56. A bag contains 9 red, 8 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{9}{19}$
- B. $\frac{8}{19}$
- C. $\frac{2}{19}$
- D. $\frac{9}{10}$

57. Find the median of: 14, 45, 52, 56, 58.

- A. 45
- B. 56
- C. 52
- D. 53

58. A training centre recorded applicants by region: North=390, South=190, East=360, West=290. Which region had the highest number of applicants?

- A. South
- B. East
- C. West
- D. North

59. What is 5% of 320?

- A. 48
- B. 16
- C. 8
- D. 32

60. Two quantities are in the ratio 5:7 and their sum is 324. What is the first quantity?

- A. 189
- B. 135
- C. 140
- D. 128

Logical Capability

61. Farah is the brother of Bala. Bala is the mother of Gopal. How is Farah related to Gopal?

- A. Maternal uncle
- B. Paternal uncle
- C. Father
- D. Brother

62. Statements: All boats are cycles. All cycles are cars. Which conclusion definitely follows?

- A. All boats are cars
- B. No boats is cars
- C. Some cars are not cycles
- D. All cars are boats

63. What is the smaller angle between the hour and minute hands at 4:30?

- A. 15 degrees
- B. 0 degrees
- C. 45 degrees
- D. 75 degrees

64. Esha is the brother of Bala. Bala is the mother of Deepa. How is Esha related to Deepa?

- A. Maternal uncle
- B. Father
- C. Brother
- D. Paternal uncle

65. Statements: All planes are buses. All buses are cycles. Which conclusion definitely follows?

- A. Some cycles are not buses
- B. All planes are cycles
- C. All cycles are planes
- D. No planes is cycles

66. On which day of the week will 01-02-2031 fall?

- A. Saturday
- B. Monday
- C. Sunday
- D. Tuesday

67. Bala is the brother of Arun. Arun is the mother of Deepa. How is Bala related to Deepa?

- A. Father
- B. Paternal uncle
- C. Maternal uncle
- D. Brother

68. Statements: All boats are buses. All buses are trains. Which conclusion definitely follows?

- A. All trains are boats
- B. No boats is trains
- C. All boats are trains
- D. Some trains are not buses

69. What is the smaller angle between the hour and minute hands at 6:00?

- A. 0 degrees
- B. 180 degrees
- C. 150 degrees
- D. Option 1

70. Bala is the brother of Charan. Charan is the mother of Arun. How is Bala related to Arun?

- A. Brother
- B. Maternal uncle
- C. Father
- D. Paternal uncle

71. Statements: All cycles are buses. All buses are books. Which conclusion definitely follows?

- A. All cycles are books
- B. All books are cycles
- C. No cycles is books
- D. Some books are not buses

72. On which day of the week will 18-01-2031 fall?

- A. Thursday
- B. Sunday
- C. Wednesday
- D. Saturday

73. Bala is the brother of Farah. Farah is the mother of Arun. How is Bala related to Arun?

- A. Maternal uncle
- B. Father
- C. Paternal uncle
- D. Brother

74. What is the smaller angle between the hour and minute hands at 5:40?

- A. 60 degrees
- B. 40 degrees
- C. 70 degrees
- D. 100 degrees

75. Farah is the brother of Gopal. Gopal is the mother of Deepa. How is Farah related to Deepa?

- A. Father
- B. Paternal uncle
- C. Brother
- D. Maternal uncle

76. Four candidates C, B, D, A are ranked from 1st to 4th. C ranks ahead of B, B ranks ahead of D, and D ranks ahead of A. Who ranks first?

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

77. Statements: All planes are pens. All pens are buses. Which conclusion definitely follows?

- A. No planes is buses
- B. All buses are planes
- C. All planes are buses
- D. Some buses are not pens

78. On which day of the week will 01-01-2030 fall?

- A. Monday
- B. Friday
- C. Tuesday
- D. Saturday

79. Arun is the brother of Gopal. Gopal is the mother of Bala. How is Arun related to Bala?

- A. Father
- B. Maternal uncle
- C. Brother
- D. Paternal uncle

80. Statements: All cars are books. All books are cycles. Which conclusion definitely follows?

- A. Some cycles are not books
- B. All cycles are cars
- C. No cars is cycles
- D. All cars are cycles

Mental Reasoning

81. Find the next number: 15, 23, 31, 39, 47, ?

- A. 94
- B. 47
- C. 63
- D. 55

82. In a class of 48 students, Meena is 17th from the top. What is her rank from the bottom?

- A. 32
- B. 33
- C. 31
- D. 17

83. Arrange 75, 70, 42, 44, 46 in ascending order. Which number will be in the middle?

- A. 70
- B. 44
- C. 75
- D. 46

84. Find the next number: 5, 13, 21, 29, 37, ?

- A. 53
- B. 45
- C. 37
- D. 74

85. In a class of 47 students, Meena is 32th from the top. What is her rank from the bottom?

- A. 16
- B. 17
- C. 32
- D. 15

86. Arrange 89, 74, 67, 43, 22 in ascending order. Which number will be in the middle?

- A. 43
- B. 67
- C. 74
- D. 89

87. Find the next number: 12, 19, 26, 33, 40, ?

- A. 54
- B. 80
- C. 47
- D. 40

88. In a class of 37 students, Meena is 10th from the top. What is her rank from the bottom?

- A. 10
- B. 27
- C. 28
- D. 29

89. Arrange 35, 97, 16, 85, 15 in ascending order. Which number will be in the middle?

- A. 97
- B. 16
- C. 85
- D. 35

90. Find the next number: 18, 26, 34, 42, 50, ?

- A. 100
- B. 66
- C. 50
- D. 58

91. In a class of 34 students, Meena is 12th from the top. What is her rank from the bottom?

- A. 24
- B. 12
- C. 22
- D. 23

92. Arrange 85, 32, 63, 11, 58 in ascending order. Which number will be in the middle?

- A. 85
- B. 32
- C. 58
- D. 63

93. Find the next number: 9, 18, 27, 36, 45, ?

- A. 63
- B. 90
- C. 54
- D. 45

94. In a class of 29 students, Meena is 3th from the top. What is her rank from the bottom?

- A. 27
- B. 3
- C. 26
- D. 28

95. Arrange 87, 56, 32, 63, 81 in ascending order. Which number will be in the middle?

- A. 87
- B. 63
- C. 81
- D. 56

96. Find the next number: 18, 25, 32, 39, 46, ?

- A. 92
- B. 60
- C. 53
- D. 46

97. In a class of 28 students, Meena is 3th from the top. What is her rank from the bottom?

- A. 3
- B. 26
- C. 25
- D. 27

98. Arrange 77, 84, 24, 43, 73 in ascending order. Which number will be in the middle?

- A. 84
- B. 73
- C. 43
- D. 77

99. Find the next number: 10, 12, 14, 16, 18, ?

- A. 18
- B. 36
- C. 20
- D. 22

100. In a class of 45 students, Meena is 16th from the top. What is her rank from the bottom?

- A. 29
- B. 16
- C. 31
- D. 30

PRACTICE SET 7 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: C - 320

SI = $\text{PRT}/100 = 2000 \times 8 \times 2/100 = \text{Rs } 320$.

2. Answer: D - 180

Distance = speed $\times$ time = $45 \times 4 = 180$ km.

3. Answer: C - 10

$7x = 70$; therefore $x = 70/7 = 10$.

4. Answer: A - 51

$a_n = a + (n-1)d = 13 + (20-1) \times 2 = 51$.

5. Answer: B - 168

$\text{HCF}(7,24) = 1$; $\text{LCM} = (7 \times 24)/1 = 168$. Therefore the required LCM is 168.

6. Answer: B - 224

Area of a rectangle = length $\times$ width = $16 \times 14 = 224 \text{ cm}^2$.

7. Answer: C - 9/17

Probability = favorable outcomes / total outcomes = $9/17 = 9/17$.

8. Answer: D - 21

The values are already ordered. For 5 observations, the median is the 3rd value, which is 21.

9. Answer: B - South

The largest value in the table is 480, corresponding to South.

10. Answer: C - 360

30% of 1200 = $(30/100) \times 1200 = 360$.

11. Answer: A - 175

Total parts = 10. First quantity = $7/10 \times 250 = 175$.

12. Answer: A - 50

Increase in average = increase in total / number of values = $42/6 = 7$. New average = $43+7 = 50$.

13. Answer: D - 750

SI = $\text{PRT}/100 = 1500 \times 10 \times 5/100 = \text{Rs } 750$.

14. Answer: A - 4.36

Combined rate = $1/6 + 1/16$. Time = $1 / \text{combined rate} = 4.36$ days.

15. Answer: B - 24

$7x = 168$; therefore $x = 168/7 = 24$.

16. Answer: A - 4

$\text{HCF}(8,12) = 4$; $\text{LCM} = (8 \times 12)/4 = 24$. Therefore the required HCF is 4.

17. Answer: C - 300

Area of a rectangle = length $\times$ width = $20 \times 15 = 300 \text{ cm}^2$.

18. Answer: B - 9/20

Probability = favorable outcomes / total outcomes = $9/20 = 9/20$.

19. Answer: B - 39

The values are already ordered. For 5 observations, the median is the 3rd value, which is 39.

20. Answer: C - West

The largest value in the table is 440, corresponding to West.

21. Answer: A - 30

12.5% of 240 = $(12.5/100) \times 240 = 30$.

22. Answer: C - 34

Total parts = 11. First quantity = $2/11 \times 187 = 34$.

23. Answer: B - 1250

SP = $\text{CP} \times (100 + \text{profit}\%)/100 = 1000 \times 125/100 = \text{Rs } 1250$.

24. Answer: A - 24

Increase in average = increase in total / number of values = $40/8 = 5$. New average = $19+5 = 24$.

25. Answer: D - 360

SI = $PRT/100 = 1500 \times 6 \times 4/100 = \text{Rs } 360$.

26. Answer: B - 140

Distance = speed $\times$ time = $40 \times 3.5 = 140 \text{ km}$.

27. Answer: A - 14.40

Combined rate = $1/24 + 1/36$. Time = $1 / \text{combined rate} = 14.40 \text{ days}$.

28. Answer: D - 7

$2x = 14$; therefore $x = 14/2 = 7$.

29. Answer: C - 74

$a_n = a + (n-1)d = 14 + (11-1) \times 6 = 74$.

30. Answer: B - 8

$HCF(8,8) = 8$; $LCM = (8 \times 8)/8 = 8$. Therefore the required HCF is 8.

31. Answer: A - 153

Area of a rectangle = length $\times$ width = $17 \times 9 = 153 \text{ cm}^2$.

32. Answer: B - 2/9

Probability = favorable outcomes / total outcomes = $4/18 = 2/9$.

33. Answer: B - 31

The values are already ordered. For 5 observations, the median is the 3rd value, which is 31.

34. Answer: B - North

The largest value in the table is 480, corresponding to North.

35. Answer: B - 72

10% of 720 = $(10/100) \times 720 = 72$.

36. Answer: B - 224

Total parts = 17. First quantity = $8/17 \times 476 = 224$.

37. Answer: B - 575

SP = $CP \times (100 + \text{profit}\%)/100 = 500 \times 115/100 = \text{Rs } 575$.

38. Answer: B - 27

Increase in average = increase in total / number of values = $50/10 = 5$. New average = $22+5 = 27$.

39. Answer: C - 160

SI = $PRT/100 = 2000 \times 4 \times 2/100 = \text{Rs } 160$.

40. Answer: B - 108

Distance = speed $\times$ time = $72 \times 1.5 = 108 \text{ km}$.

41. Answer: A - 18

$8x = 144$; therefore $x = 144/8 = 18$.

42. Answer: D - 28

$a_n = a + (n-1)d = 4 + (13-1) \times 2 = 28$.

43. Answer: A - 19

$HCF(19,19) = 19$; $LCM = (19 \times 19)/19 = 19$. Therefore the required LCM is 19.

44. Answer: B - 120

Area of a rectangle = length $\times$ width = $20 \times 6 = 120 \text{ cm}^2$.

45. Answer: B - 8/17

Probability = favorable outcomes / total outcomes = $8/17 = 8/17$.

46. Answer: D - 40

The values are already ordered. For 5 observations, the median is the 3rd value, which is 40.

47. Answer: B - North

The largest value in the table is 500, corresponding to North.

48. Answer: A - 50

Total parts = 8. First quantity = $5/8 \times 80 = 50$.

49. Answer: D - 37

Increase in average = increase in total / number of values = $56/7 = 8$. New average = $29+8 = 37$.

50. Answer: B - 200

SI = $PRT/100 = 1000 \times 5 \times 4/100 = \text{Rs } 200$.

51. Answer: C - 8.00

Combined rate = $1/10 + 1/40$. Time = $1 / \text{combined rate} = 8.00$ days.

52. Answer: B - 12

$7x = 84$; therefore $x = 84/7 = 12$.

53. Answer: C - 66

$a_n = a + (n-1)d = 9 + (20-1) \times 3 = 66$.

54. Answer: B - 1

$HCF(9,17) = 1$; $LCM = (9 \times 17)/1 = 153$. Therefore the required HCF is 1.

55. Answer: D - 55

Area of a rectangle = length $\times$ width = $11 \times 5 = 55 \text{ cm}^2$.

56. Answer: A - 9/19

Probability = favorable outcomes / total outcomes = $9/19 = 9/19$.

57. Answer: C - 52

The values are already ordered. For 5 observations, the median is the 3rd value, which is 52.

58. Answer: D - North

The largest value in the table is 390, corresponding to North.

59. Answer: B - 16

5% of 320 = $(5/100) \times 320 = 16$.

60. Answer: B - 135

Total parts = 12. First quantity = $5/12 \times 324 = 135$.

Logical Capability**61. Answer: A - Maternal uncle**

Farah is the brother of Gopal's mother, so Farah is Gopal's maternal uncle.

62. Answer: A - All boats are cars

If every boats belongs to cycles, and every cycles belongs to cars, then every boats must also belong to cars.

63. Answer: C - 45 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 45 degrees.

64. Answer: A - Maternal uncle

Esha is the brother of Deepa's mother, so Esha is Deepa's maternal uncle.

65. Answer: B - All planes are cycles

If every planes belongs to buses, and every buses belongs to cycles, then every planes must also belong to cycles.

66. Answer: A - Saturday

Using standard calendar day calculation, 01-02-2031 falls on Saturday.

67. Answer: C - Maternal uncle

Bala is the brother of Deepa's mother, so Bala is Deepa's maternal uncle.

68. Answer: C - All boats are trains

If every boats belongs to buses, and every buses belongs to trains, then every boats must also belong to trains.

69. Answer: B - 180 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 180 degrees.

70. Answer: B - Maternal uncle

Bala is the brother of Arun's mother, so Bala is Arun's maternal uncle.

71. Answer: A - All cycles are books

If every cycles belongs to buses, and every buses belongs to books, then every cycles must also belong to books.

72. Answer: D - Saturday

Using standard calendar day calculation, 18-01-2031 falls on Saturday.

73. Answer: A - Maternal uncle

Bala is the brother of Arun's mother, so Bala is Arun's maternal uncle.

74. Answer: C - 70 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 70 degrees.

75. Answer: D - Maternal uncle

Farah is the brother of Deepa's mother, so Farah is Deepa's maternal uncle.

76. Answer: B - C

The statements form the complete order $C > B > D > A$, so C is first.

77. Answer: C - All planes are buses

If every planes belongs to pens, and every pens belongs to buses, then every planes must also belong to buses.

78. Answer: C - Tuesday

Using standard calendar day calculation, 01-01-2030 falls on Tuesday.

79. Answer: B - Maternal uncle

Arun is the brother of Bala's mother, so Arun is Bala's maternal uncle.

80. Answer: D - All cars are cycles

If every cars belongs to books, and every books belongs to cycles, then every cars must also belong to cycles.

Mental Reasoning**81. Answer: D - 55**

The series increases by 8 each time, so the next term is $47 + 8 = 55$.

82. Answer: A - 32

Rank from bottom = total - rank from top + 1 = $48 - 17 + 1 = 32$.

83. Answer: D - 46

Ascending order is 42, 44, 46, 70, 75; the middle (3rd) number is 46.

84. Answer: B - 45

The series increases by 8 each time, so the next term is $37 + 8 = 45$.

85. Answer: A - 16

Rank from bottom = total - rank from top + 1 = $47 - 32 + 1 = 16$.

86. Answer: B - 67

Ascending order is 22, 43, 67, 74, 89; the middle (3rd) number is 67.

87. Answer: C - 47

The series increases by 7 each time, so the next term is $40 + 7 = 47$.

88. Answer: C - 28

Rank from bottom = total - rank from top + 1 = $37 - 10 + 1 = 28$.

89. Answer: D - 35

Ascending order is 15, 16, 35, 85, 97; the middle (3rd) number is 35.

90. Answer: D - 58

The series increases by 8 each time, so the next term is $50 + 8 = 58$.

91. Answer: D - 23

Rank from bottom = total - rank from top + 1 = $34 - 12 + 1 = 23$.

92. Answer: C - 58

Ascending order is 11, 32, 58, 63, 85; the middle (3rd) number is 58.

93. Answer: C - 54

The series increases by 9 each time, so the next term is $45 + 9 = 54$.

94. Answer: A - 27

Rank from bottom = total - rank from top + 1 = $29 - 3 + 1 = 27$.

95. Answer: B - 63

Ascending order is 32, 56, 63, 81, 87; the middle (3rd) number is 63.

96. Answer: C - 53

The series increases by 7 each time, so the next term is $46 + 7 = 53$.

97. Answer: B - 26

Rank from bottom = total - rank from top + 1 = $28 - 3 + 1 = 26$.

98. Answer: B - 73

Ascending order is 24, 43, 73, 77, 84; the middle (3rd) number is 73.

99. Answer: C - 20

The series increases by 2 each time, so the next term is $18 + 2 = 20$.

100. Answer: D - 30

Rank from bottom = total - rank from top + 1 = $45 - 16 + 1 = 30$.

EXAMGURUX

PRACTICE SET 8

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. An article costing Rs 600 is sold at a profit of 15%. Find the selling price.

- A. 510
- B. 750
- C. 90
- D. 690

2. The average of 5 numbers is 57. If the total of the numbers increases by 35, what is the new average?

- A. 64
- B. 60.5
- C. 50
- D. 92

3. Find the simple interest on Rs 1500 at 5% per annum for 5 years.

- A. 375
- B. 75
- C. 400
- D. 1875

4. A train moves at 72 km/h for 2.5 hours. How far does it travel?

- A. 216
- B. 74.5
- C. 180
- D. 108

5. A can complete a job in 8 days and B in 36 days. Working together at constant rates, approximately how many days will they take?

- A. 22.00
- B. 28.00
- C. 44.00
- D. 6.55

6. Solve for x: $5x + 9 = 134$.

- A. 24
- B. 125
- C. 26
- D. 25

7. Find the 8th term of the arithmetic progression 2, 8, 14, ...

- A. 45
- B. 38
- C. 50
- D. 44

8. Find the HCF of 18 and 18.

- A. 324
- B. 36
- C. 18
- D. 0

9. A rectangle is 13 cm long and 11 cm wide. What is its area?

- A. 143
- B. 24
- C. 156
- D. 48

10. A bag contains 9 red, 4 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{9}{7}$
- B. $\frac{4}{16}$
- C. $\frac{9}{16}$
- D. $\frac{3}{16}$

11. Find the median of: 14, 17, 31, 36, 43.

- A. 28.2
- B. 36
- C. 31
- D. 17

12. A training centre recorded applicants by region: North=360, South=260, East=480, West=420. Which region had the highest number of applicants?

- A. West
- B. South
- C. East
- D. North

13. What is 30% of 720?

- A. 288
- B. 198
- C. 252
- D. 216

14. Two quantities are in the ratio 3:7 and their sum is 210. What is the first quantity?

- A. 56
- B. 147
- C. 66
- D. 63

15. The average of 5 numbers is 52. If the total of the numbers increases by 35, what is the new average?

- A. 59
- B. 55.5
- C. 87
- D. 45

16. Find the simple interest on Rs 4000 at 4% per annum for 5 years.

- A. 4800
- B. 820
- C. 800
- D. 160

17. A train moves at 48 km/h for 4 hours. How far does it travel?

- A. 216
- B. 144
- C. 192
- D. 52

18. A can complete a job in 12 days and B in 48 days. Working together at constant rates, approximately how many days will they take?

- A. 36.00
- B. 60.00
- C. 30.00
- D. 9.60

19. Solve for x: $6x + 17 = 89$.

- A. 11
- B. 72
- C. 13
- D. 12

20. Find the 14th term of the arithmetic progression 8, 14, 20, ...

- A. 87
- B. 86
- C. 92
- D. 80

21. Find the HCF of 20 and 8.

- A. 12
- B. 44
- C. 160
- D. 4

22. A rectangle is 14 cm long and 12 cm wide. What is its area?

- A. 168
- B. 26
- C. 182
- D. 52

23. A bag contains 6 red, 7 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{1}{3}$
- B. $\frac{5}{18}$
- C. $\frac{6}{12}$
- D. $\frac{7}{18}$

24. Find the median of: 25, 48, 50, 56, 58.

- A. 50
- B. 47.4
- C. 56
- D. 48

25. A training centre recorded applicants by region: North=260, South=240, East=320, West=300. Which region had the highest number of applicants?

- A. East
- B. South
- C. North
- D. West

26. Two quantities are in the ratio 8:9 and their sum is 459. What is the first quantity?

- A. 207
- B. 224
- C. 243
- D. 216

27. The average of 9 numbers is 20. If the total of the numbers increases by 72, what is the new average?

- A. 92
- B. 12
- C. 28
- D. 24

28. Find the simple interest on Rs 5000 at 12% per annum for 3 years.

- A. 600
- B. 6800
- C. 1800
- D. 1836

29. A train moves at 48 km/h for 3 hours. How far does it travel?

- A. 96
- B. 144
- C. 168
- D. 51

30. A can complete a job in 8 days and B in 30 days. Working together at constant rates, approximately how many days will they take?

- A. 22.00
- B. 6.32
- C. 38.00
- D. 19.00

31. Solve for x: $2x + 10 = 24$.

- A. 8
- B. 7
- C. 6
- D. 14

32. Find the 18th term of the arithmetic progression 2, 5, 8, ...

- A. 53
- B. 50
- C. 54
- D. 56

33. Find the LCM of 10 and 19.

- A. 9
- B. 191
- C. 192
- D. 190

34. A rectangle is 24 cm long and 16 cm wide. What is its area?

- A. 408
- B. 384
- C. 80
- D. 40

35. A bag contains 7 red, 9 blue and 4 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{9}{20}$
- B. $\frac{4}{20}$
- C. $\frac{7}{20}$
- D. $\frac{7}{13}$

36. Find the median of: 22, 24, 34, 51, 55.

- A. 34
- B. 37.2
- C. 24
- D. 51

37. A training centre recorded applicants by region: North=150, South=310, East=260, West=270. Which region had the highest number of applicants?

- A. West
- B. North
- C. East
- D. South

38. What is 12.5% of 600?

- A. 135
- B. 105
- C. 75
- D. 60

39. Two quantities are in the ratio 9:8 and their sum is 187. What is the first quantity?

- A. 88
- B. 99
- C. 91
- D. 108

40. The average of 7 numbers is 35. If the total of the numbers increases by 49, what is the new average?

- A. 84
- B. 38.5
- C. 28
- D. 42

41. Find the simple interest on Rs 5000 at 5% per annum for 4 years.

- A. 1000
- B. 1020
- C. 6000
- D. 250

42. Solve for x: $5x + 17 = 82$.

- A. 13
- B. 12
- C. 65
- D. 14

43. Find the 9th term of the arithmetic progression 4, 9, 14, ...

- A. 44
- B. 49
- C. 45
- D. 39

44. Find the LCM of 17 and 9.

- A. 155
- B. 153
- C. 154
- D. 8

45. A rectangle is 13 cm long and 9 cm wide. What is its area?

- A. 22
- B. 117
- C. 44
- D. 130

46. A bag contains 9 red, 4 blue and 8 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{3}{7}$
- B. $\frac{4}{21}$
- C. $\frac{9}{12}$
- D. $\frac{8}{21}$

47. Find the median of: 12, 16, 21, 24, 47.

- A. 16
- B. 21
- C. 24
- D. 22

48. A training centre recorded applicants by region: North=140, South=360, East=240, West=490. Which region had the highest number of applicants?

- A. North
- B. South
- C. East
- D. West

49. What is 12.5% of 1200?

- A. 210
- B. 120
- C. 150
- D. 270

50. Two quantities are in the ratio 9:2 and their sum is 187. What is the first quantity?

- A. 34
- B. 162
- C. 151
- D. 153

51. The average of 7 numbers is 53. If the total of the numbers increases by 35, what is the new average?

- A. 58
- B. 48
- C. 55.5
- D. 88

52. Find the simple interest on Rs 1000 at 6% per annum for 5 years.

- A. 60
- B. 300
- C. 1300
- D. 330

53. A train moves at 40 km/h for 1.5 hours. How far does it travel?

- A. 60
- B. 80
- C. 41.5
- D. 20

54. A can complete a job in 6 days and B in 24 days. Working together at constant rates, approximately how many days will they take?

- A. 18.00
- B. 30.00
- C. 4.80
- D. 15.00

55. Solve for x: $3x + 4 = 37$.

- A. 12
- B. 10
- C. 11
- D. 33

56. Find the 9th term of the arithmetic progression 4, 10, 16, ...

- A. 58
- B. 46
- C. 53
- D. 52

57. Find the HCF of 18 and 24.

- A. 7
- B. 6
- C. 432
- D. 78

58. A rectangle is 20 cm long and 11 cm wide. What is its area?

- A. 31
- B. 62
- C. 220
- D. 240

59. A bag contains 8 red, 8 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{8}{18}$
- B. $\frac{8}{10}$
- C. $\frac{4}{9}$
- D. $\frac{2}{18}$

60. Find the median of: 19, 39, 51, 54, 59.

- A. 51
- B. 44.4
- C. 39
- D. 54

Logical Capability

61. What is the smaller angle between the hour and minute hands at 10:20?

- A. 180 degrees
- B. 170 degrees
- C. 120 degrees
- D. 140 degrees

62. Bala is the brother of Esha. Esha is the mother of Farah. How is Bala related to Farah?

- A. Paternal uncle
- B. Brother
- C. Father
- D. Maternal uncle

63. Statements: All cycles are boats. All boats are buses. Which conclusion definitely follows?

- A. All buses are cycles
- B. No cycles is buses
- C. All cycles are buses
- D. Some buses are not boats

64. On which day of the week will 10-09-2028 fall?

- A. Sunday
- B. Monday
- C. Wednesday
- D. Thursday

65. Farah is the brother of Charan. Charan is the mother of Hari. How is Farah related to Hari?

- A. Brother
- B. Father
- C. Maternal uncle
- D. Paternal uncle

66. Statements: All books are planes. All planes are boats. Which conclusion definitely follows?

- A. All books are boats
- B. All boats are books
- C. No books is boats
- D. Some boats are not planes

67. What is the smaller angle between the hour and minute hands at 3:30?

- A. 45 degrees
- B. 75 degrees
- C. 0 degrees
- D. 105 degrees

68. Farah is the brother of Gopal. Gopal is the mother of Arun. How is Farah related to Arun?

- A. Maternal uncle
- B. Paternal uncle
- C. Father
- D. Brother

69. Statements: All cycles are planes. All planes are books. Which conclusion definitely follows?

- A. Some books are not planes
- B. All books are cycles
- C. No cycles is books
- D. All cycles are books

70. On which day of the week will 25-06-2030 fall?

- A. Sunday
- B. Thursday
- C. Monday
- D. Tuesday

71. Gopal is the brother of Charan. Charan is the mother of Esha. How is Gopal related to Esha?

- A. Father
- B. Paternal uncle
- C. Maternal uncle
- D. Brother

72. Statements: All cars are buses. All buses are cycles. Which conclusion definitely follows?

- A. All cars are cycles
- B. No cars is cycles
- C. Some cycles are not buses
- D. All cycles are cars

73. What is the smaller angle between the hour and minute hands at 10:50?

- A. 25 degrees
- B. 120 degrees
- C. 5 degrees
- D. 55 degrees

74. Arun is the brother of Esha. Esha is the mother of Farah. How is Arun related to Farah?

- A. Brother
- B. Paternal uncle
- C. Father
- D. Maternal uncle

75. Statements: All cars are trains. All trains are boats. Which conclusion definitely follows?

- A. Some boats are not trains
- B. No cars is boats
- C. All boats are cars
- D. All cars are boats

76. On which day of the week will 01-08-2027 fall?

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

77. Esha is the brother of Farah. Farah is the mother of Gopal. How is Esha related to Gopal?

- A. Maternal uncle
- B. Brother
- C. Paternal uncle
- D. Father

78. Four candidates D, B, C, A are ranked from 1st to 4th. D ranks ahead of B, B ranks ahead of C, and C ranks ahead of A. Who ranks first?

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

79. Statements: All cycles are cars. All cars are pens. Which conclusion definitely follows?

- A. All pens are cycles
- B. All cycles are pens
- C. No cycles is pens
- D. Some pens are not cars

80. Charan is the brother of Arun. Arun is the mother of Bala. How is Charan related to Bala?

- A. Paternal uncle
- B. Father
- C. Brother
- D. Maternal uncle

Mental Reasoning

81. Arrange 34, 50, 45, 88, 74 in ascending order. Which number will be in the middle?

- A. 88
- B. 45
- C. 74
- D. 50

82. Find the next number: 7, 13, 19, 25, 31, ?

- A. 37
- B. 62
- C. 31
- D. 43

83. In a class of 26 students, Meena is 16th from the top. What is her rank from the bottom?

- A. 11
- B. 10
- C. 16
- D. 12

84. Arrange 40, 70, 26, 94, 37 in ascending order. Which number will be in the middle?

- A. 40
- B. 70
- C. 37
- D. 94

85. Find the next number: 20, 23, 26, 29, 32, ?

- A. 38
- B. 35
- C. 64
- D. 32

86. In a class of 36 students, Meena is 15th from the top. What is her rank from the bottom?

- A. 15
- B. 23
- C. 22
- D. 21

87. Arrange 89, 26, 76, 44, 34 in ascending order. Which number will be in the middle?

- A. 89
- B. 34
- C. 44
- D. 76

88. Find the next number: 3, 7, 11, 15, 19, ?

- A. 38
- B. 19
- C. 27
- D. 23

89. In a class of 34 students, Meena is 14th from the top. What is her rank from the bottom?

- A. 22
- B. 20
- C. 14
- D. 21

90. Arrange 74, 18, 39, 12, 30 in ascending order. Which number will be in the middle?

- A. 74
- B. 18
- C. 39
- D. 30

91. In a class of 53 students, Meena is 6th from the top. What is her rank from the bottom?

- A. 49
- B. 6
- C. 48
- D. 47

92. Arrange 92, 81, 50, 31, 52 in ascending order. Which number will be in the middle?

- A. 81
- B. 52
- C. 92
- D. 50

93. Find the next number: 8, 13, 18, 23, 28, ?

- A. 56
- B. 38
- C. 28
- D. 33

94. In a class of 36 students, Meena is 10th from the top. What is her rank from the bottom?

- A. 28
- B. 10
- C. 26
- D. 27

95. Arrange 14, 96, 39, 81, 34 in ascending order. Which number will be in the middle?

- A. 34
- B. 81
- C. 39
- D. 96

96. Find the next number: 15, 17, 19, 21, 23, ?

- A. 27
- B. 46
- C. 25
- D. 23

97. In a class of 31 students, Meena is 16th from the top. What is her rank from the bottom?

- A. 17
- B. 18
- C. 16
- D. 15

98. Arrange 75, 48, 47, 78, 93 in ascending order. Which number will be in the middle?

- A. 93
- B. 48
- C. 75
- D. 78

99. In a class of 57 students, Meena is 39th from the top. What is her rank from the bottom?

- A. 18
- B. 20
- C. 39
- D. 19

100. Arrange 85, 67, 50, 15, 24 in ascending order. Which number will be in the middle?

- A. 85
- B. 67
- C. 24
- D. 50

PRACTICE SET 8 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: D - 690

$SP = CP \times (100 + \text{profit}\%)/100 = 600 \times 115/100 = \text{Rs } 690.$

2. Answer: A - 64

Increase in average = increase in total / number of values = $35/5 = 7$. New average = $57+7 = 64$.

3. Answer: A - 375

$SI = PRT/100 = 1500 \times 5 \times 5/100 = \text{Rs } 375.$

4. Answer: C - 180

Distance = speed $\times$ time = $72 \times 2.5 = 180 \text{ km}.$

5. Answer: D - 6.55

Combined rate = $1/8 + 1/36$. Time = $1 / \text{combined rate} = 6.55 \text{ days}.$

6. Answer: D - 25

$5x = 125$; therefore $x = 125/5 = 25$.

7. Answer: D - 44

$a_n = a + (n-1)d = 2 + (8-1) \times 6 = 44.$

8. Answer: C - 18

$HCF(18,18) = 18$; $LCM = (18 \times 18)/18 = 18$. Therefore the required HCF is 18.

9. Answer: A - 143

Area of a rectangle = length $\times$ width = $13 \times 11 = 143 \text{ cm}^2.$

10. Answer: C - 9/16

Probability = favorable outcomes / total outcomes = $9/16 = 9/16$.

11. Answer: C - 31

The values are already ordered. For 5 observations, the median is the 3rd value, which is 31.

12. Answer: C - East

The largest value in the table is 480, corresponding to East.

13. Answer: D - 216

30% of 720 = $(30/100) \times 720 = 216$.

14. Answer: D - 63

Total parts = 10. First quantity = $3/10 \times 210 = 63$.

15. Answer: A - 59

Increase in average = increase in total / number of values = $35/5 = 7$. New average = $52+7 = 59$.

16. Answer: C - 800

$SI = PRT/100 = 4000 \times 4 \times 5/100 = \text{Rs } 800.$

17. Answer: C - 192

Distance = speed $\times$ time = $48 \times 4 = 192 \text{ km}.$

18. Answer: D - 9.60

Combined rate = $1/12 + 1/48$. Time = $1 / \text{combined rate} = 9.60 \text{ days}.$

19. Answer: D - 12

$6x = 72$; therefore $x = 72/6 = 12$.

20. Answer: B - 86

$a_n = a + (n-1)d = 8 + (14-1) \times 6 = 86.$

21. Answer: D - 4

$HCF(20,8) = 4$; $LCM = (20 \times 8)/4 = 40$. Therefore the required HCF is 4.

22. Answer: A - 168

Area of a rectangle = length $\times$ width = $14 \times 12 = 168 \text{ cm}^2.$

23. Answer: A - 1/3

Probability = favorable outcomes / total outcomes = $6/18 = 1/3$.

24. Answer: A - 50

The values are already ordered. For 5 observations, the median is the 3rd value, which is 50.

25. Answer: A - East

The largest value in the table is 320, corresponding to East.

26. Answer: D - 216

Total parts = 17. First quantity = $8/17 \times 459 = 216$.

27. Answer: C - 28

Increase in average = increase in total / number of values = $72/9 = 8$. New average = $20+8 = 28$.

28. Answer: C - 1800

SI = $PRT/100 = 5000 \times 12 \times 3/100 = \text{Rs } 1800$.

29. Answer: B - 144

Distance = speed $\times$ time = $48 \times 3 = 144$ km.

30. Answer: B - 6.32

Combined rate = $1/8 + 1/30$. Time = $1 / \text{combined rate} = 6.32$ days.

31. Answer: B - 7

$2x = 14$; therefore $x = 14/2 = 7$.

32. Answer: A - 53

$a_n = a + (n-1)d = 2 + (18-1) \times 3 = 53$.

33. Answer: D - 190

$\text{HCF}(10,19) = 1$; $\text{LCM} = (10 \times 19)/1 = 190$. Therefore the required LCM is 190.

34. Answer: B - 384

Area of a rectangle = length $\times$ width = $24 \times 16 = 384 \text{ cm}^2$.

35. Answer: C - 7/20

Probability = favorable outcomes / total outcomes = $7/20 = 7/20$.

36. Answer: A - 34

The values are already ordered. For 5 observations, the median is the 3rd value, which is 34.

37. Answer: D - South

The largest value in the table is 310, corresponding to South.

38. Answer: C - 75

12.5% of 600 = $(12.5/100) \times 600 = 75$.

39. Answer: B - 99

Total parts = 17. First quantity = $9/17 \times 187 = 99$.

40. Answer: D - 42

Increase in average = increase in total / number of values = $49/7 = 7$. New average = $35+7 = 42$.

41. Answer: A - 1000

SI = $PRT/100 = 5000 \times 5 \times 4/100 = \text{Rs } 1000$.

42. Answer: A - 13

$5x = 65$; therefore $x = 65/5 = 13$.

43. Answer: A - 44

$a_n = a + (n-1)d = 4 + (9-1) \times 5 = 44$.

44. Answer: B - 153

$\text{HCF}(17,9) = 1$; $\text{LCM} = (17 \times 9)/1 = 153$. Therefore the required LCM is 153.

45. Answer: B - 117

Area of a rectangle = length $\times$ width = $13 \times 9 = 117 \text{ cm}^2$.

46. Answer: A - 3/7

Probability = favorable outcomes / total outcomes = $9/21 = 3/7$.

47. Answer: B - 21

The values are already ordered. For 5 observations, the median is the 3rd value, which is 21.

48. Answer: D - West

The largest value in the table is 490, corresponding to West.

49. Answer: C - 150

$12.5\% \text{ of } 1200 = (12.5/100) \times 1200 = 150.$

50. Answer: D - 153

Total parts = 11. First quantity = $9/11 \times 187 = 153.$

51. Answer: A - 58

Increase in average = increase in total / number of values = $35/7 = 5.$ New average = $53+5 = 58.$

52. Answer: B - 300

$SI = PRT/100 = 1000 \times 6 \times 5/100 = \text{Rs } 300.$

53. Answer: A - 60

Distance = speed $\times$ time = $40 \times 1.5 = 60 \text{ km}.$

54. Answer: C - 4.80

Combined rate = $1/6 + 1/24.$ Time = $1 / \text{combined rate} = 4.80 \text{ days}.$

55. Answer: C - 11

$3x = 33;$ therefore $x = 33/3 = 11.$

56. Answer: D - 52

$a_n = a + (n-1)d = 4 + (9-1) \times 6 = 52.$

57. Answer: B - 6

$HCF(18,24) = 6;$ $LCM = (18 \times 24)/6 = 72.$ Therefore the required HCF is 6.

58. Answer: C - 220

Area of a rectangle = length $\times$ width = $20 \times 11 = 220 \text{ cm}^2.$

59. Answer: C - 4/9

Probability = favorable outcomes / total outcomes = $8/18 = 4/9.$

60. Answer: A - 51

The values are already ordered. For 5 observations, the median is the 3rd value, which is 51.

Logical Capability**61. Answer: B - 170 degrees**

Hour-hand angle = $30h + 0.5m;$ minute-hand angle = $6m.$ Their smaller difference is 170 degrees.

62. Answer: D - Maternal uncle

Bala is the brother of Farah's mother, so Bala is Farah's maternal uncle.

63. Answer: C - All cycles are buses

If every cycles belongs to boats, and every boats belongs to buses, then every cycles must also belong to buses.

64. Answer: A - Sunday

Using standard calendar day calculation, 10-09-2028 falls on Sunday.

65. Answer: C - Maternal uncle

Farah is the brother of Hari's mother, so Farah is Hari's maternal uncle.

66. Answer: A - All books are boats

If every books belongs to planes, and every planes belongs to boats, then every books must also belong to boats.

67. Answer: B - 75 degrees

Hour-hand angle = $30h + 0.5m;$ minute-hand angle = $6m.$ Their smaller difference is 75 degrees.

68. Answer: A - Maternal uncle

Farah is the brother of Arun's mother, so Farah is Arun's maternal uncle.

69. Answer: D - All cycles are books

If every cycles belongs to planes, and every planes belongs to books, then every cycles must also belong to books.

70. Answer: D - Tuesday

Using standard calendar day calculation, 25-06-2030 falls on Tuesday.

71. Answer: C - Maternal uncle

Gopal is the brother of Esha's mother, so Gopal is Esha's maternal uncle.

72. Answer: A - All cars are cycles

If every cars belongs to buses, and every buses belongs to cycles, then every cars must also belong to cycles.

73. Answer: A - 25 degrees

Hour-hand angle = $30h + 0.5m;$ minute-hand angle = $6m.$ Their smaller difference is 25 degrees.

74. Answer: D - Maternal uncle

Arun is the brother of Farah's mother, so Arun is Farah's maternal uncle.

75. Answer: D - All cars are boats

If every cars belongs to trains, and every trains belongs to boats, then every cars must also belong to boats.

76. Answer: C - Sunday

Using standard calendar day calculation, 01-08-2027 falls on Sunday.

77. Answer: A - Maternal uncle

Esha is the brother of Gopal's mother, so Esha is Gopal's maternal uncle.

78. Answer: C - D

The statements form the complete order $D > B > C > A$, so D is first.

79. Answer: B - All cycles are pens

If every cycles belongs to cars, and every cars belongs to pens, then every cycles must also belong to pens.

80. Answer: D - Maternal uncle

Charan is the brother of Bala's mother, so Charan is Bala's maternal uncle.

Mental Reasoning**81. Answer: D - 50**

Ascending order is 34, 45, 50, 74, 88; the middle (3rd) number is 50.

82. Answer: A - 37

The series increases by 6 each time, so the next term is $31 + 6 = 37$.

83. Answer: A - 11

Rank from bottom = total - rank from top + 1 = $26 - 16 + 1 = 11$.

84. Answer: A - 40

Ascending order is 26, 37, 40, 70, 94; the middle (3rd) number is 40.

85. Answer: B - 35

The series increases by 3 each time, so the next term is $32 + 3 = 35$.

86. Answer: C - 22

Rank from bottom = total - rank from top + 1 = $36 - 15 + 1 = 22$.

87. Answer: C - 44

Ascending order is 26, 34, 44, 76, 89; the middle (3rd) number is 44.

88. Answer: D - 23

The series increases by 4 each time, so the next term is $19 + 4 = 23$.

89. Answer: D - 21

Rank from bottom = total - rank from top + 1 = $34 - 14 + 1 = 21$.

90. Answer: D - 30

Ascending order is 12, 18, 30, 39, 74; the middle (3rd) number is 30.

91. Answer: C - 48

Rank from bottom = total - rank from top + 1 = $53 - 6 + 1 = 48$.

92. Answer: B - 52

Ascending order is 31, 50, 52, 81, 92; the middle (3rd) number is 52.

93. Answer: D - 33

The series increases by 5 each time, so the next term is $28 + 5 = 33$.

94. Answer: D - 27

Rank from bottom = total - rank from top + 1 = $36 - 10 + 1 = 27$.

95. Answer: C - 39

Ascending order is 14, 34, 39, 81, 96; the middle (3rd) number is 39.

96. Answer: C - 25

The series increases by 2 each time, so the next term is $23 + 2 = 25$.

97. Answer: C - 16

Rank from bottom = total - rank from top + 1 = $31 - 16 + 1 = 16$.

98. Answer: C - 75

Ascending order is 47, 48, 75, 78, 93; the middle (3rd) number is 75.

99. Answer: D - 19

Rank from bottom = total - rank from top + 1 = $57 - 39 + 1 = 19$.

100. Answer: D - 50

Ascending order is 15, 24, 50, 67, 85; the middle (3rd) number is 50.

EXAMGURUX

PRACTICE SET 9

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. A training centre recorded applicants by region: North=270, South=330, East=130, West=330. Which region had the highest number of applicants?

- A. East
- B. South
- C. West
- D. North

2. What is 40% of 600?

- A. 225
- B. 240
- C. 300
- D. 270

3. Two quantities are in the ratio 6:5 and their sum is 242. What is the first quantity?

- A. 127
- B. 138
- C. 132
- D. 110

4. An article costing Rs 800 is sold at a profit of 15%. Find the selling price.

- A. 120
- B. 920
- C. 1000
- D. 680

5. The average of 10 numbers is 29. If the total of the numbers increases by 70, what is the new average?

- A. 22
- B. 36
- C. 99
- D. 32.5

6. Find the simple interest on Rs 3000 at 8% per annum for 4 years.

- A. 992
- B. 960
- C. 240
- D. 3960

7. A train moves at 48 km/h for 1.5 hours. How far does it travel?

- A. 96
- B. 49.5
- C. 24
- D. 72

- 8. A can complete a job in 6 days and B in 20 days. Working together at constant rates, approximately how many days will they take?**
- A. 13.00
 - B. 26.00
 - C. 14.00
 - D. 4.62
- 9. Solve for x: $3x + 18 = 27$.**
- A. 9
 - B. 2
 - C. 4
 - D. 3
- 10. Find the 14th term of the arithmetic progression 14, 16, 18, ...**
- A. 42
 - B. 38
 - C. 40
 - D. 41
- 11. Find the HCF of 16 and 22.**
- A. 2
 - B. 6
 - C. 178
 - D. 352
- 12. A bag contains 4 red, 10 blue and 7 green balls. One ball is drawn at random. What is the probability of drawing a red ball?**
- A. $\frac{4}{17}$
 - B. $\frac{10}{21}$
 - C. $\frac{4}{21}$
 - D. $\frac{7}{21}$
- 13. Find the median of: 12, 35, 38, 49, 50.**
- A. 38
 - B. 49
 - C. 36.8
 - D. 35
- 14. A training centre recorded applicants by region: North=210, South=190, East=130, West=230. Which region had the highest number of applicants?**
- A. South
 - B. West
 - C. North
 - D. East

15. Two quantities are in the ratio 9:7 and their sum is 192. What is the first quantity?

- A. 117
- B. 108
- C. 84
- D. 101

16. The average of 5 numbers is 42. If the total of the numbers increases by 40, what is the new average?

- A. 34
- B. 82
- C. 46
- D. 50

17. Find the simple interest on Rs 4000 at 5% per annum for 5 years.

- A. 1000
- B. 1025
- C. 200
- D. 5000

18. A can complete a job in 10 days and B in 24 days. Working together at constant rates, approximately how many days will they take?

- A. 7.06
- B. 34.00
- C. 14.00
- D. 17.00

19. Solve for x: $2x + 16 = 50$.

- A. 18
- B. 34
- C. 17
- D. 16

20. Find the 9th term of the arithmetic progression 8, 15, 22, ...

- A. 71
- B. 65
- C. 57
- D. 64

21. Find the HCF of 15 and 18.

- A. 93
- B. 4
- C. 3
- D. 270

22. A rectangle is 9 cm long and 8 cm wide. What is its area?

- A. 81
- B. 72
- C. 34
- D. 17

- 23. A bag contains 3 red, 7 blue and 7 green balls. One ball is drawn at random. What is the probability of drawing a red ball?**
- A. $\frac{7}{17}$
 - B. $\frac{3}{14}$
 - C. $\frac{3}{17}$
 - D. Option 1
- 24. Find the median of: 15, 22, 27, 29, 42.**
- A. 28
 - B. 22
 - C. 29
 - D. 27
- 25. A training centre recorded applicants by region: North=180, South=210, East=370, West=190. Which region had the highest number of applicants?**
- A. South
 - B. North
 - C. East
 - D. West
- 26. Two quantities are in the ratio 2:7 and their sum is 117. What is the first quantity?**
- A. 91
 - B. 26
 - C. 28
 - D. 19
- 27. The average of 8 numbers is 47. If the total of the numbers increases by 48, what is the new average?**
- A. 50
 - B. 41
 - C. 53
 - D. 95
- 28. A train moves at 48 km/h for 3.5 hours. How far does it travel?**
- A. 192
 - B. 120
 - C. 168
 - D. 51.5
- 29. A can complete a job in 8 days and B in 24 days. Working together at constant rates, approximately how many days will they take?**
- A. 6.00
 - B. 16.00
 - C. 32.00
 - D. 7

30. Solve for x: $3x + 7 = 67$.

- A. 20
- B. 21
- C. 60
- D. 19

31. Find the 17th term of the arithmetic progression 3, 8, 13, ...

- A. 88
- B. 84
- C. 83
- D. 78

32. Find the LCM of 8 and 9.

- A. 72
- B. 1
- C. 73
- D. 74

33. A rectangle is 10 cm long and 9 cm wide. What is its area?

- A. 100
- B. 90
- C. 19
- D. 38

34. A bag contains 4 red, 8 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{2}{14}$
- B. $\frac{4}{10}$
- C. $\frac{8}{14}$
- D. $\frac{2}{7}$

35. Find the median of: 21, 45, 49, 52, 59.

- A. 52
- B. 45
- C. 49
- D. 45.2

36. A training centre recorded applicants by region: North=260, South=350, East=260, West=500. Which region had the highest number of applicants?

- A. East
- B. North
- C. South
- D. West

37. What is 12.5% of 400?

- A. 40
- B. 50
- C. 90
- D. 70

38. Two quantities are in the ratio 4:5 and their sum is 225. What is the first quantity?

- A. 95
- B. 104
- C. 125
- D. 100

39. The average of 5 numbers is 58. If the total of the numbers increases by 25, what is the new average?

- A. 53
- B. 60.5
- C. 83
- D. 63

40. Find the simple interest on Rs 2000 at 10% per annum for 2 years.

- A. 420
- B. 200
- C. 2400
- D. 400

41. Solve for x: $4x + 3 = 83$.

- A. 80
- B. 19
- C. 21
- D. 20

42. Find the 14th term of the arithmetic progression 14, 18, 22, ...

- A. 67
- B. 62
- C. 70
- D. 66

43. Find the LCM of 16 and 19.

- A. 3
- B. 304
- C. 306
- D. 305

44. A rectangle is 8 cm long and 5 cm wide. What is its area?

- A. 40
- B. 13
- C. 48
- D. 26

45. A bag contains 7 red, 7 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. Option 1
- B. $\frac{7}{9}$
- C. $\frac{2}{16}$
- D. $\frac{7}{16}$

46. Find the median of: 19, 24, 47, 55, 58.

- A. 55
- B. 24
- C. 40.6
- D. 47

47. A training centre recorded applicants by region: North=440, South=170, East=380, West=280. Which region had the highest number of applicants?

- A. South
- B. North
- C. East
- D. West

48. What is 12.5% of 960?

- A. 96
- B. 216
- C. 120
- D. 168

49. Two quantities are in the ratio 3:8 and their sum is 176. What is the first quantity?

- A. 51
- B. 128
- C. 48
- D. 40

50. An article costing Rs 600 is sold at a profit of 20%. Find the selling price.

- A. 780
- B. 120
- C. 480
- D. 720

51. The average of 8 numbers is 42. If the total of the numbers increases by 32, what is the new average?

- A. 44
- B. 46
- C. 38
- D. 74

52. A train moves at 40 km/h for 4 hours. How far does it travel?

- A. 160
- B. 180
- C. 44
- D. 120

53. A can complete a job in 20 days and B in 12 days. Working together at constant rates, approximately how many days will they take?

- A. 7.50
- B. 16.00
- C. 32.00
- D. 8.00

54. Solve for x: $8x + 3 = 187$.

- A. 23
- B. 184
- C. 22
- D. 24

55. Find the 11th term of the arithmetic progression 3, 9, 15, ...

- A. 63
- B. 64
- C. 57
- D. 69

56. A rectangle is 22 cm long and 14 cm wide. What is its area?

- A. 308
- B. 72
- C. 36
- D. 330

57. A bag contains 6 red, 5 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{2}{13}$
- B. $\frac{6}{13}$
- C. $\frac{6}{7}$
- D. $\frac{5}{13}$

58. Find the median of: 13, 26, 37, 43, 51.

- A. 34
- B. 37
- C. 26
- D. 43

59. A training centre recorded applicants by region: North=470, South=450, East=120, West=500. Which region had the highest number of applicants?

- A. South
- B. North
- C. East
- D. West

60. What is 20% of 400?

- A. 80
- B. 120
- C. 100
- D. 70

Logical Capability

61. Statements: All buses are cycles. All cycles are boats. Which conclusion definitely follows?

- A. Some boats are not cycles
- B. No buses is boats
- C. All buses are boats
- D. All boats are buses

62. On which day of the week will 09-06-2027 fall?

- A. Friday
- B. Tuesday
- C. Monday
- D. Wednesday

63. Charan is the brother of Bala. Bala is the mother of Deepa. How is Charan related to Deepa?

- A. Maternal uncle
- B. Father
- C. Brother
- D. Paternal uncle

64. Statements: All pens are cars. All cars are trains. Which conclusion definitely follows?

- A. All pens are trains
- B. All trains are pens
- C. No pens is trains
- D. Some trains are not cars

65. What is the smaller angle between the hour and minute hands at 8:50?

- A. 5 degrees
- B. 120 degrees
- C. 65 degrees
- D. 35 degrees

66. Charan is the brother of Deepa. Deepa is the mother of Arun. How is Charan related to Arun?

- A. Brother
- B. Maternal uncle
- C. Paternal uncle
- D. Father

67. Statements: All boats are cycles. All cycles are books. Which conclusion definitely follows?

- A. All boats are books
- B. No boats is books
- C. Some books are not cycles
- D. All books are boats

68. On which day of the week will 06-09-2029 fall?

- A. Wednesday
- B. Thursday
- C. Tuesday
- D. Friday

69. Gopal is the brother of Deepa. Deepa is the mother of Hari. How is Gopal related to Hari?

- A. Paternal uncle
- B. Father
- C. Maternal uncle
- D. Brother

70. Statements: All planes are cycles. All cycles are books. Which conclusion definitely follows?

- A. No planes is books
- B. All planes are books
- C. All books are planes
- D. Some books are not cycles

71. What is the smaller angle between the hour and minute hands at 9:20?

- A. 130 degrees
- B. 160 degrees
- C. 180 degrees
- D. 120 degrees

72. Bala is the brother of Charan. Charan is the mother of Esha. How is Bala related to Esha?

- A. Brother
- B. Father
- C. Paternal uncle
- D. Maternal uncle

73. Statements: All books are cars. All cars are buses. Which conclusion definitely follows?

- A. All buses are books
- B. All books are buses
- C. No books is buses
- D. Some buses are not cars

74. On which day of the week will 04-02-2032 fall?

- A. Friday
- B. Saturday
- C. Wednesday
- D. Tuesday

75. Charan is the brother of Farah. Farah is the mother of Hari. How is Charan related to Hari?

- A. Brother
- B. Paternal uncle
- C. Father
- D. Maternal uncle

76. Statements: All cars are cycles. All cycles are boats. Which conclusion definitely follows?

- A. All boats are cars
- B. All cars are boats
- C. Some boats are not cycles
- D. No cars is boats

77. Farah is the brother of Gopal. Gopal is the mother of Esha. How is Farah related to Esha?

- A. Paternal uncle
- B. Maternal uncle
- C. Brother
- D. Father

78. Four candidates C, B, A, D are ranked from 1st to 4th. C ranks ahead of B, B ranks ahead of A, and A ranks ahead of D. Who ranks first?

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

79. Statements: All trains are boats. All boats are pens. Which conclusion definitely follows?

- A. No trains is pens
- B. All pens are trains
- C. Some pens are not boats
- D. All trains are pens

80. On which day of the week will 13-04-2028 fall?

- A. Tuesday
- B. Thursday
- C. Saturday
- D. Sunday

Mental Reasoning

81. Find the next number: 9, 13, 17, 21, 25, ?

- A. 29
- B. 50
- C. 25
- D. 33

82. In a class of 52 students, Meena is 29th from the top. What is her rank from the bottom?

- A. 29
- B. 23
- C. 25
- D. 24

83. Arrange 53, 10, 25, 66, 86 in ascending order. Which number will be in the middle?

- A. 25
- B. 53
- C. 86
- D. 66

84. Find the next number: 14, 16, 18, 20, 22, ?

- A. 24
- B. 44
- C. 26
- D. 22

85. In a class of 28 students, Meena is 11th from the top. What is her rank from the bottom?

- A. 18
- B. 17
- C. 19
- D. 11

86. Arrange 60, 22, 28, 89, 81 in ascending order. Which number will be in the middle?

- A. 89
- B. 28
- C. 81
- D. 60

87. In a class of 44 students, Meena is 31th from the top. What is her rank from the bottom?

- A. 13
- B. 15
- C. 14
- D. 31

88. Arrange 59, 65, 74, 24, 64 in ascending order. Which number will be in the middle?

- A. 65
- B. 74
- C. 64
- D. 59

89. In a class of 31 students, Meena is 18th from the top. What is her rank from the bottom?

- A. 13
- B. 15
- C. 18
- D. 14

90. Arrange 89, 71, 53, 44, 74 in ascending order. Which number will be in the middle?

- A. 53
- B. 89
- C. 71
- D. 74

91. Find the next number: 13, 22, 31, 40, 49, ?

- A. 67
- B. 98
- C. 58
- D. 49

92. In a class of 32 students, Meena is 14th from the top. What is her rank from the bottom?

- A. 18
- B. 20
- C. 14
- D. 19

93. Arrange 70, 78, 36, 45, 82 in ascending order. Which number will be in the middle?

- A. 78
- B. 82
- C. 45
- D. 70

94. In a class of 45 students, Meena is 17th from the top. What is her rank from the bottom?

- A. 29
- B. 30
- C. 28
- D. 17

95. Arrange 93, 76, 58, 81, 49 in ascending order. Which number will be in the middle?

- A. 93
- B. 58
- C. 81
- D. 76

96. Find the next number: 8, 10, 12, 14, 16, ?

- A. 18
- B. 32
- C. 20
- D. 16

97. In a class of 57 students, Meena is 46th from the top. What is her rank from the bottom?

- A. 12
- B. 46
- C. 13
- D. 11

98. Arrange 15, 88, 69, 79, 25 in ascending order. Which number will be in the middle?

- A. 88
- B. 79
- C. 69
- D. 25

99. Find the next number: 17, 21, 25, 29, 33, ?

- A. 41
- B. 66
- C. 37
- D. 33

100. In a code, each letter is shifted 1 place(s) forward in the alphabet. How is RAIL coded?

- A. TCKN
- B. SBJM
- C. LIAR
- D. QZHK

PRACTICE SET 9 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: B - South

The largest value in the table is 330, corresponding to South.

2. Answer: B - 240

$40\% \text{ of } 600 = (40/100) \times 600 = 240$.

3. Answer: C - 132

Total parts = 11. First quantity = $6/11 \times 242 = 132$.

4. Answer: B - 920

$SP = CP \times (100 + \text{profit}\%)/100 = 800 \times 115/100 = \text{Rs } 920$.

5. Answer: B - 36

Increase in average = increase in total / number of values = $70/10 = 7$. New average = $29+7 = 36$.

6. Answer: B - 960

$SI = PRT/100 = 3000 \times 8 \times 4/100 = \text{Rs } 960$.

7. Answer: D - 72

Distance = speed $\times$ time = $48 \times 1.5 = 72 \text{ km}$.

8. Answer: D - 4.62

Combined rate = $1/6 + 1/20$. Time = $1 / \text{combined rate} = 4.62 \text{ days}$.

9. Answer: D - 3

$3x = 9$; therefore $x = 9/3 = 3$.

10. Answer: C - 40

$a_n = a + (n-1)d = 14 + (14-1) \times 2 = 40$.

11. Answer: A - 2

$HCF(16,22) = 2$; $LCM = (16 \times 22)/2 = 176$. Therefore the required HCF is 2.

12. Answer: C - 4/21

Probability = favorable outcomes / total outcomes = $4/21 = 4/21$.

13. Answer: A - 38

The values are already ordered. For 5 observations, the median is the 3rd value, which is 38.

14. Answer: B - West

The largest value in the table is 230, corresponding to West.

15. Answer: B - 108

Total parts = 16. First quantity = $9/16 \times 192 = 108$.

16. Answer: D - 50

Increase in average = increase in total / number of values = $40/5 = 8$. New average = $42+8 = 50$.

17. Answer: A - 1000

$SI = PRT/100 = 4000 \times 5 \times 5/100 = \text{Rs } 1000$.

18. Answer: A - 7.06

Combined rate = $1/10 + 1/24$. Time = $1 / \text{combined rate} = 7.06 \text{ days}$.

19. Answer: C - 17

$2x = 34$; therefore $x = 34/2 = 17$.

20. Answer: D - 64

$a_n = a + (n-1)d = 8 + (9-1) \times 7 = 64$.

21. Answer: C - 3

$HCF(15,18) = 3$; $LCM = (15 \times 18)/3 = 90$. Therefore the required HCF is 3.

22. Answer: B - 72

Area of a rectangle = length $\times$ width = $9 \times 8 = 72 \text{ cm}^2$.

23. Answer: C - 3/17

Probability = favorable outcomes / total outcomes = $3/17 = 3/17$.

24. Answer: D - 27

The values are already ordered. For 5 observations, the median is the 3rd value, which is 27.

25. Answer: C - East

The largest value in the table is 370, corresponding to East.

26. Answer: B - 26

Total parts = 9. First quantity = $2/9 \times 117 = 26$.

27. Answer: C - 53

Increase in average = increase in total / number of values = $48/8 = 6$. New average = $47+6 = 53$.

28. Answer: C - 168

Distance = speed x time = $48 \times 3.5 = 168$ km.

29. Answer: A - 6.00

Combined rate = $1/8 + 1/24$. Time = $1 / \text{combined rate} = 6.00$ days.

30. Answer: A - 20

$3x = 60$; therefore $x = 60/3 = 20$.

31. Answer: C - 83

$a_n = a + (n-1)d = 3 + (17-1) \times 5 = 83$.

32. Answer: A - 72

$HCF(8,9) = 1$; $LCM = (8 \times 9)/1 = 72$. Therefore the required LCM is 72.

33. Answer: B - 90

Area of a rectangle = length x width = $10 \times 9 = 90 \text{ cm}^2$.

34. Answer: D - 2/7

Probability = favorable outcomes / total outcomes = $4/14 = 2/7$.

35. Answer: C - 49

The values are already ordered. For 5 observations, the median is the 3rd value, which is 49.

36. Answer: D - West

The largest value in the table is 500, corresponding to West.

37. Answer: B - 50

12.5% of 400 = $(12.5/100) \times 400 = 50$.

38. Answer: D - 100

Total parts = 9. First quantity = $4/9 \times 225 = 100$.

39. Answer: D - 63

Increase in average = increase in total / number of values = $25/5 = 5$. New average = $58+5 = 63$.

40. Answer: D - 400

$SI = PRT/100 = 2000 \times 10 \times 2/100 = \text{Rs } 400$.

41. Answer: D - 20

$4x = 80$; therefore $x = 80/4 = 20$.

42. Answer: D - 66

$a_n = a + (n-1)d = 14 + (14-1) \times 4 = 66$.

43. Answer: B - 304

$HCF(16,19) = 1$; $LCM = (16 \times 19)/1 = 304$. Therefore the required LCM is 304.

44. Answer: A - 40

Area of a rectangle = length x width = $8 \times 5 = 40 \text{ cm}^2$.

45. Answer: D - 7/16

Probability = favorable outcomes / total outcomes = $7/16 = 7/16$.

46. Answer: D - 47

The values are already ordered. For 5 observations, the median is the 3rd value, which is 47.

47. Answer: B - North

The largest value in the table is 440, corresponding to North.

48. Answer: C - 120

12.5% of 960 = $(12.5/100) \times 960 = 120$.

49. Answer: C - 48

Total parts = 11. First quantity = $3/11 \times 176 = 48$.

50. Answer: D - 720

SP = CP $\times$ (100 + profit%)/100 = $600 \times 120/100 = \text{Rs } 720$.

51. Answer: B - 46

Increase in average = increase in total / number of values = $32/8 = 4$. New average = $42+4 = 46$.

52. Answer: A - 160

Distance = speed $\times$ time = $40 \times 4 = 160 \text{ km}$.

53. Answer: A - 7.50

Combined rate = $1/20 + 1/12$. Time = $1 / \text{combined rate} = 7.50 \text{ days}$.

54. Answer: A - 23

$8x = 184$; therefore $x = 184/8 = 23$.

55. Answer: A - 63

$a_n = a + (n-1)d = 3 + (11-1) \times 6 = 63$.

56. Answer: A - 308

Area of a rectangle = length $\times$ width = $22 \times 14 = 308 \text{ cm}^2$.

57. Answer: B - 6/13

Probability = favorable outcomes / total outcomes = $6/13 = 6/13$.

58. Answer: B - 37

The values are already ordered. For 5 observations, the median is the 3rd value, which is 37.

59. Answer: D - West

The largest value in the table is 500, corresponding to West.

60. Answer: A - 80

20% of 400 = $(20/100) \times 400 = 80$.

Logical Capability**61. Answer: C - All buses are boats**

If every buses belongs to cycles, and every cycles belongs to boats, then every buses must also belong to boats.

62. Answer: D - Wednesday

Using standard calendar day calculation, 09-06-2027 falls on Wednesday.

63. Answer: A - Maternal uncle

Charan is the brother of Deepa's mother, so Charan is Deepa's maternal uncle.

64. Answer: A - All pens are trains

If every pens belongs to cars, and every cars belongs to trains, then every pens must also belong to trains.

65. Answer: D - 35 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 35 degrees.

66. Answer: B - Maternal uncle

Charan is the brother of Arun's mother, so Charan is Arun's maternal uncle.

67. Answer: A - All boats are books

If every boats belongs to cycles, and every cycles belongs to books, then every boats must also belong to books.

68. Answer: B - Thursday

Using standard calendar day calculation, 06-09-2029 falls on Thursday.

69. Answer: C - Maternal uncle

Gopal is the brother of Hari's mother, so Gopal is Hari's maternal uncle.

70. Answer: B - All planes are books

If every planes belongs to cycles, and every cycles belongs to books, then every planes must also belong to books.

71. Answer: B - 160 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 160 degrees.

72. Answer: D - Maternal uncle

Bala is the brother of Esha's mother, so Bala is Esha's maternal uncle.

73. Answer: B - All books are buses

If every books belongs to cars, and every cars belongs to buses, then every books must also belong to buses.

74. Answer: C - Wednesday

Using standard calendar day calculation, 04-02-2032 falls on Wednesday.

75. Answer: D - Maternal uncle

Charan is the brother of Hari's mother, so Charan is Hari's maternal uncle.

76. Answer: B - All cars are boats

If every cars belongs to cycles, and every cycles belongs to boats, then every cars must also belong to boats.

77. Answer: B - Maternal uncle

Farah is the brother of Esha's mother, so Farah is Esha's maternal uncle.

78. Answer: B - C

The statements form the complete order $C > B > A > D$, so C is first.

79. Answer: D - All trains are pens

If every trains belongs to boats, and every boats belongs to pens, then every trains must also belong to pens.

80. Answer: B - Thursday

Using standard calendar day calculation, 13-04-2028 falls on Thursday.

Mental Reasoning**81. Answer: A - 29**

The series increases by 4 each time, so the next term is $25 + 4 = 29$.

82. Answer: D - 24

Rank from bottom = total - rank from top + 1 = $52 - 29 + 1 = 24$.

83. Answer: B - 53

Ascending order is 10, 25, 53, 66, 86; the middle (3rd) number is 53.

84. Answer: A - 24

The series increases by 2 each time, so the next term is $22 + 2 = 24$.

85. Answer: A - 18

Rank from bottom = total - rank from top + 1 = $28 - 11 + 1 = 18$.

86. Answer: D - 60

Ascending order is 22, 28, 60, 81, 89; the middle (3rd) number is 60.

87. Answer: C - 14

Rank from bottom = total - rank from top + 1 = $44 - 31 + 1 = 14$.

88. Answer: C - 64

Ascending order is 24, 59, 64, 65, 74; the middle (3rd) number is 64.

89. Answer: D - 14

Rank from bottom = total - rank from top + 1 = $31 - 18 + 1 = 14$.

90. Answer: C - 71

Ascending order is 44, 53, 71, 74, 89; the middle (3rd) number is 71.

91. Answer: C - 58

The series increases by 9 each time, so the next term is $49 + 9 = 58$.

92. Answer: D - 19

Rank from bottom = total - rank from top + 1 = $32 - 14 + 1 = 19$.

93. Answer: D - 70

Ascending order is 36, 45, 70, 78, 82; the middle (3rd) number is 70.

94. Answer: A - 29

Rank from bottom = total - rank from top + 1 = $45 - 17 + 1 = 29$.

95. Answer: D - 76

Ascending order is 49, 58, 76, 81, 93; the middle (3rd) number is 76.

96. Answer: A - 18

The series increases by 2 each time, so the next term is $16 + 2 = 18$.

97. Answer: A - 12

Rank from bottom = total - rank from top + 1 = $57 - 46 + 1 = 12$.

98. Answer: C - 69

Ascending order is 15, 25, 69, 79, 88; the middle (3rd) number is 69.

99. Answer: C - 37

The series increases by 4 each time, so the next term is $33 + 4 = 37$.

100. Answer: B - SBJM

Shift every letter of RAIL forward by 1. This gives SBJM.

EXAMGURUX

PRACTICE SET 10

100 Questions | Suggested Time: 120 Minutes | Negative Marking: 1/3 for each wrong answer

Analytical & Mathematical Capability

1. Two quantities are in the ratio 7:5 and their sum is 252. What is the first quantity?

- A. 147
- B. 142
- C. 105
- D. 154

2. An article costing Rs 1500 is sold at a profit of 30%. Find the selling price.

- A. 1050
- B. 450
- C. 1950
- D. 2100

3. The average of 10 numbers is 35. If the total of the numbers increases by 40, what is the new average?

- A. 39
- B. 75
- C. 31
- D. 37

4. Solve for x: $3x + 12 = 33$.

- A. 6
- B. 21
- C. 7
- D. 8

5. Find the 18th term of the arithmetic progression 10, 15, 20, ...

- A. 96
- B. 95
- C. 100
- D. 90

6. Find the LCM of 14 and 10.

- A. 72
- B. 4
- C. 70
- D. 140

7. A rectangle is 18 cm long and 5 cm wide. What is its area?

- A. 90
- B. 46
- C. 108
- D. 23

8. A bag contains 4 red, 4 blue and 5 green balls. One ball is drawn at random. What is the probability of drawing a red ball?
- A. $\frac{4}{9}$
 - B. $\frac{4}{13}$
 - C. $\frac{5}{13}$
 - D. Option 1
9. Find the median of: 23, 39, 42, 46, 59.
- A. 42
 - B. 41.8
 - C. 39
 - D. 46
10. A training centre recorded applicants by region: North=240, South=380, East=340, West=170. Which region had the highest number of applicants?
- A. North
 - B. South
 - C. East
 - D. West
11. What is 20% of 960?
- A. 168
 - B. 288
 - C. 240
 - D. 192
12. An article costing Rs 1500 is sold at a profit of 25%. Find the selling price.
- A. 375
 - B. 1875
 - C. 2025
 - D. 1125
13. The average of 10 numbers is 46. If the total of the numbers increases by 70, what is the new average?
- A. 116
 - B. 39
 - C. 53
 - D. 49.5
14. Find the simple interest on Rs 2500 at 4% per annum for 2 years.
- A. 100
 - B. 2700
 - C. 200
 - D. 208
15. Solve for x: $4x + 5 = 73$.
- A. 68
 - B. 16
 - C. 17
 - D. 18

16. Find the 12th term of the arithmetic progression 15, 19, 23, ...

- A. 59
- B. 60
- C. 55
- D. 63

17. Find the LCM of 9 and 15.

- A. 48
- B. 135
- C. 6
- D. 45

18. A rectangle is 20 cm long and 9 cm wide. What is its area?

- A. 200
- B. 180
- C. 58
- D. 29

19. A bag contains 8 red, 4 blue and 2 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{4}{7}$
- B. $\frac{8}{6}$
- C. $\frac{2}{14}$
- D. $\frac{4}{14}$

20. Find the median of: 19, 39, 51, 54, 55.

- A. 39
- B. 51
- C. 43.6
- D. 54

21. A training centre recorded applicants by region: North=270, South=390, East=340, West=240. Which region had the highest number of applicants?

- A. West
- B. South
- C. North
- D. East

22. What is 30% of 600?

- A. 180
- B. 240
- C. 210
- D. 165

23. Two quantities are in the ratio 5:3 and their sum is 184. What is the first quantity?

- A. 120
- B. 115
- C. 69
- D. 112

24. The average of 6 numbers is 55. If the total of the numbers increases by 42, what is the new average?

- A. 97
- B. 48
- C. 58.5
- D. 62

25. Find the simple interest on Rs 1000 at 8% per annum for 4 years.

- A. 320
- B. 80
- C. 352
- D. 1320

26. A train moves at 72 km/h for 3 hours. How far does it travel?

- A. 75
- B. 252
- C. 144
- D. 216

27. A can complete a job in 20 days and B in 36 days. Working together at constant rates, approximately how many days will they take?

- A. 16.00
- B. 56.00
- C. 12.86
- D. 28.00

28. Solve for x: $3x + 10 = 25$.

- A. 6
- B. 4
- C. 5
- D. 15

29. Find the 12th term of the arithmetic progression 4, 6, 8, ...

- A. 27
- B. 28
- C. 26
- D. 24

30. A bag contains 7 red, 10 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. 10/20
- B. 7/13
- C. 7/20
- D. 3/20

31. Find the median of: 10, 13, 16, 32, 33.

- A. 32
- B. 16
- C. 20.8
- D. 13

32. A training centre recorded applicants by region: North=420, South=190, East=380, West=460. Which region had the highest number of applicants?

- A. South
- B. West
- C. East
- D. North

33. What is 5% of 400?

- A. 10
- B. 40
- C. 20
- D. 60

34. Two quantities are in the ratio 9:4 and their sum is 364. What is the first quantity?

- A. 248
- B. 112
- C. 261
- D. 252

35. The average of 8 numbers is 54. If the total of the numbers increases by 64, what is the new average?

- A. 62
- B. 118
- C. 46
- D. 58

36. Find the simple interest on Rs 1000 at 5% per annum for 3 years.

- A. 165
- B. 1150
- C. 150
- D. 50

37. Solve for x: $9x + 9 = 81$.

- A. 9
- B. 72
- C. 7
- D. 8

38. Find the 8th term of the arithmetic progression 9, 12, 15, ...

- A. 27
- B. 33
- C. 31
- D. 30

39. Find the LCM of 13 and 21.

- A. 275
- B. 274
- C. 273
- D. 8

40. A rectangle is 8 cm long and 7 cm wide. What is its area?

- A. 30
- B. 64
- C. 56
- D. 15

41. A bag contains 4 red, 7 blue and 3 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. $\frac{2}{7}$
- B. $\frac{7}{14}$
- C. $\frac{3}{14}$
- D. $\frac{4}{10}$

42. Find the median of: 11, 27, 42, 43, 44.

- A. 33.4
- B. 42
- C. 43
- D. 27

43. A training centre recorded applicants by region: North=470, South=260, East=130, West=380. Which region had the highest number of applicants?

- A. South
- B. West
- C. East
- D. North

44. What is the value of x ? Statement I: $2x = 24$. Statement II: $x^2 = 144$ and x is positive.

- A. Both statements together are required
- B. Either statement alone is sufficient
- C. Statement I alone is sufficient
- D. Statement II alone is sufficient

45. What is 15% of 600?

- A. 120
- B. 75
- C. 90
- D. 150

46. Two quantities are in the ratio 5:2 and their sum is 84. What is the first quantity?

- A. 60
- B. 58
- C. 65
- D. 24

47. An article costing Rs 1200 is sold at a profit of 10%. Find the selling price.

- A. 1080
- B. 1320
- C. 1440
- D. 120

48. The average of 9 numbers is 19. If the total of the numbers increases by 63, what is the new average?

- A. 22.5
- B. 12
- C. 26
- D. 82

49. Find the simple interest on Rs 2500 at 12% per annum for 3 years.

- A. 300
- B. 3400
- C. 936
- D. 900

50. A train moves at 36 km/h for 2 hours. How far does it travel?

- A. 38
- B. 90
- C. 72
- D. 36

51. A can complete a job in 6 days and B in 36 days. Working together at constant rates, approximately how many days will they take?

- A. 30.00
- B. 21.00
- C. 5.14
- D. 42.00

52. Solve for x: $7x + 8 = 148$.

- A. 19
- B. 21
- C. 140
- D. 20

53. Find the 8th term of the arithmetic progression 14, 18, 22, ...

- A. 42
- B. 46
- C. 38
- D. 43

54. Find the HCF of 17 and 10.

- A. 7
- B. 1
- C. 171
- D. 170

55. A rectangle is 13 cm long and 10 cm wide. What is its area?

- A. 143
- B. 23
- C. 46
- D. 130

56. A bag contains 9 red, 9 blue and 7 green balls. One ball is drawn at random. What is the probability of drawing a red ball?

- A. Option 1
- B. $\frac{9}{25}$
- C. $\frac{9}{16}$
- D. $\frac{7}{25}$

57. Find the median of: 11, 38, 41, 44, 50.

- A. 44
- B. 38
- C. 36.8
- D. 41

58. A training centre recorded applicants by region: North=260, South=170, East=240, West=130. Which region had the highest number of applicants?

- A. East
- B. South
- C. North
- D. West

59. What is 30% of 320?

- A. 88
- B. 112
- C. 96
- D. 128

60. Two quantities are in the ratio 9:4 and their sum is 312. What is the first quantity?

- A. 96
- B. 212
- C. 216
- D. 225

Logical Capability

61. Charan is the brother of Gopal. Gopal is the mother of Bala. How is Charan related to Bala?

- A. Maternal uncle
- B. Father
- C. Brother
- D. Paternal uncle

62. Statements: All pens are cycles. All cycles are boats. Which conclusion definitely follows?

- A. No pens is boats
- B. All pens are boats
- C. All boats are pens
- D. Some boats are not cycles

63. Hari is the brother of Bala. Bala is the mother of Farah. How is Hari related to Farah?

- A. Brother
- B. Maternal uncle
- C. Father
- D. Paternal uncle

64. Four candidates D, B, A, C are ranked from 1st to 4th. D ranks ahead of B, B ranks ahead of A, and A ranks ahead of C. Who ranks first?

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

65. Statements: All books are boats. All boats are planes. Which conclusion definitely follows?

- A. Some planes are not boats
- B. No books is planes
- C. All books are planes
- D. All planes are books

66. On which day of the week will 19-09-2032 fall?

- A. Saturday
- B. Monday
- C. Tuesday
- D. Sunday

67. Gopal is the brother of Hari. Hari is the mother of Charan. How is Gopal related to Charan?

- A. Maternal uncle
- B. Father
- C. Paternal uncle
- D. Brother

68. Statements: All books are cycles. All cycles are planes. Which conclusion definitely follows?

- A. All planes are books
- B. Some planes are not cycles
- C. All books are planes
- D. No books is planes

69. What is the smaller angle between the hour and minute hands at 1:10?

- A. 5 degrees
- B. 60 degrees
- C. 25 degrees
- D. 55 degrees

70. Farah is the brother of Hari. Hari is the mother of Charan. How is Farah related to Charan?

- A. Paternal uncle
- B. Maternal uncle
- C. Brother
- D. Father

71. Statements: All planes are boats. All boats are pens. Which conclusion definitely follows?

- A. All pens are planes
- B. Some pens are not boats
- C. All planes are pens
- D. No planes is pens

72. On which day of the week will 18-10-2030 fall?

- A. Sunday
- B. Wednesday
- C. Friday
- D. Thursday

73. Arun is the brother of Deepa. Deepa is the mother of Gopal. How is Arun related to Gopal?

- A. Maternal uncle
- B. Paternal uncle
- C. Father
- D. Brother

74. Statements: All cycles are planes. All planes are buses. Which conclusion definitely follows?

- A. All cycles are buses
- B. All buses are cycles
- C. Some buses are not planes
- D. No cycles is buses

75. What is the smaller angle between the hour and minute hands at 11:10?

- A. 115 degrees
- B. 55 degrees
- C. 85 degrees
- D. 60 degrees

76. Hari is the brother of Bala. Bala is the mother of Deepa. How is Hari related to Deepa?

- A. Father
- B. Maternal uncle
- C. Brother
- D. Paternal uncle

77. Statements: All planes are cycles. All cycles are buses. Which conclusion definitely follows?

- A. No planes is buses
- B. All buses are planes
- C. Some buses are not cycles
- D. All planes are buses

78. On which day of the week will 19-11-2031 fall?

- A. Saturday
- B. Tuesday
- C. Wednesday
- D. Friday

79. Deepa is the brother of Esha. Esha is the mother of Charan. How is Deepa related to Charan?

- A. Maternal uncle
- B. Father
- C. Brother
- D. Paternal uncle

80. Statements: All cycles are pens. All pens are trains. Which conclusion definitely follows?

- A. No cycles is trains
- B. Some trains are not pens
- C. All cycles are trains
- D. All trains are cycles

Mental Reasoning

81. In a class of 44 students, Meena is 22th from the top. What is her rank from the bottom?

- A. 22
- B. 24
- C. 23
- D. 25

82. Arrange 93, 35, 92, 57, 44 in ascending order. Which number will be in the middle?

- A. 44
- B. 92
- C. 57
- D. 93

83. Arrange 95, 10, 91, 70, 30 in ascending order. Which number will be in the middle?

- A. 30
- B. 91
- C. 95
- D. 70

84. In a class of 52 students, Meena is 3th from the top. What is her rank from the bottom?

- A. 51
- B. 3
- C. 49
- D. 50

85. Arrange 72, 63, 66, 58, 74 in ascending order. Which number will be in the middle?

- A. 63
- B. 72
- C. 66
- D. 74

86. In a class of 32 students, Meena is 21th from the top. What is her rank from the bottom?

- A. 13
- B. 11
- C. 21
- D. 12

87. Arrange 87, 46, 60, 35, 72 in ascending order. Which number will be in the middle?

- A. 46
- B. 60
- C. 87
- D. 72

88. Find the next number: 3, 5, 7, 9, 11, ?

- A. 11
- B. 13
- C. 22
- D. 15

89. In a class of 54 students, Meena is 29th from the top. What is her rank from the bottom?

- A. 27
- B. 26
- C. 29
- D. 25

90. Arrange 68, 34, 14, 66, 35 in ascending order. Which number will be in the middle?

- A. 35
- B. 66
- C. 34
- D. 68

91. Find the next number: 5, 8, 11, 14, 17, ?

- A. 20
- B. 23
- C. 17
- D. 34

92. In a class of 38 students, Meena is 11th from the top. What is her rank from the bottom?

- A. 28
- B. 11
- C. 29
- D. 27

93. Arrange 93, 79, 85, 23, 92 in ascending order. Which number will be in the middle?

- A. 79
- B. 92
- C. 85
- D. 93

94. Find the next number: 6, 14, 22, 30, 38, ?

- A. 54
- B. 38
- C. 46
- D. 76

95. In a class of 43 students, Meena is 29th from the top. What is her rank from the bottom?

- A. 29
- B. 16
- C. 15
- D. 14

96. Arrange 56, 78, 41, 13, 52 in ascending order. Which number will be in the middle?

- A. 56
- B. 52
- C. 41
- D. 78

97. Find the next number: 6, 9, 12, 15, 18, ?

- A. 21
- B. 24
- C. 36
- D. 18

98. In a class of 51 students, Meena is 28th from the top. What is her rank from the bottom?

- A. 23
- B. 28
- C. 24
- D. 25

99. Arrange 82, 56, 52, 37, 42 in ascending order. Which number will be in the middle?

- A. 56
- B. 82
- C. 52
- D. 42

100. Find the next number: 3, 9, 15, 21, 27, ?

- A. 33
- B. 39
- C. 54
- D. 27

PRACTICE SET 10 - ANSWERS & EXPLANATIONS

Analytical & Mathematical Capability

1. Answer: A - 147

Total parts = 12. First quantity = $7/12 \times 252 = 147$.

2. Answer: C - 1950

SP = CP $\times$ (100 + profit%)/100 = $1500 \times 130/100 = \text{Rs } 1950$.

3. Answer: A - 39

Increase in average = increase in total / number of values = $40/10 = 4$. New average = $35+4 = 39$.

4. Answer: C - 7

$3x = 21$; therefore $x = 21/3 = 7$.

5. Answer: B - 95

$a_n = a + (n-1)d = 10 + (18-1) \times 5 = 95$.

6. Answer: C - 70

HCF(14,10) = 2; LCM = $(14 \times 10)/2 = 70$. Therefore the required LCM is 70.

7. Answer: A - 90

Area of a rectangle = length $\times$ width = $18 \times 5 = 90 \text{ cm}^2$.

8. Answer: B - 4/13

Probability = favorable outcomes / total outcomes = $4/13 = 4/13$.

9. Answer: A - 42

The values are already ordered. For 5 observations, the median is the 3rd value, which is 42.

10. Answer: B - South

The largest value in the table is 380, corresponding to South.

11. Answer: D - 192

20% of 960 = $(20/100) \times 960 = 192$.

12. Answer: B - 1875

SP = CP $\times$ (100 + profit%)/100 = $1500 \times 125/100 = \text{Rs } 1875$.

13. Answer: C - 53

Increase in average = increase in total / number of values = $70/10 = 7$. New average = $46+7 = 53$.

14. Answer: C - 200

SI = $\text{PRT}/100 = 2500 \times 4 \times 2/100 = \text{Rs } 200$.

15. Answer: C - 17

$4x = 68$; therefore $x = 68/4 = 17$.

16. Answer: A - 59

$a_n = a + (n-1)d = 15 + (12-1) \times 4 = 59$.

17. Answer: D - 45

HCF(9,15) = 3; LCM = $(9 \times 15)/3 = 45$. Therefore the required LCM is 45.

18. Answer: B - 180

Area of a rectangle = length $\times$ width = $20 \times 9 = 180 \text{ cm}^2$.

19. Answer: A - 4/7

Probability = favorable outcomes / total outcomes = $8/14 = 4/7$.

20. Answer: B - 51

The values are already ordered. For 5 observations, the median is the 3rd value, which is 51.

21. Answer: B - South

The largest value in the table is 390, corresponding to South.

22. Answer: A - 180

30% of 600 = $(30/100) \times 600 = 180$.

23. Answer: B - 115

Total parts = 8. First quantity = $5/8 \times 184 = 115$.

24. Answer: D - 62

Increase in average = increase in total / number of values = $42/6 = 7$. New average = $55+7 = 62$.

25. Answer: A - 320

SI = $PRT/100 = 1000 \times 8 \times 4/100 = \text{Rs } 320$.

26. Answer: D - 216

Distance = speed $\times$ time = $72 \times 3 = 216 \text{ km}$.

27. Answer: C - 12.86

Combined rate = $1/20 + 1/36$. Time = $1 / \text{combined rate} = 12.86 \text{ days}$.

28. Answer: C - 5

$3x = 15$; therefore $x = 15/3 = 5$.

29. Answer: C - 26

$a_n = a + (n-1)d = 4 + (12-1) \times 2 = 26$.

30. Answer: C - 7/20

Probability = favorable outcomes / total outcomes = $7/20 = 7/20$.

31. Answer: B - 16

The values are already ordered. For 5 observations, the median is the 3rd value, which is 16.

32. Answer: B - West

The largest value in the table is 460, corresponding to West.

33. Answer: C - 20

5% of 400 = $(5/100) \times 400 = 20$.

34. Answer: D - 252

Total parts = 13. First quantity = $9/13 \times 364 = 252$.

35. Answer: A - 62

Increase in average = increase in total / number of values = $64/8 = 8$. New average = $54+8 = 62$.

36. Answer: C - 150

SI = $PRT/100 = 1000 \times 5 \times 3/100 = \text{Rs } 150$.

37. Answer: D - 8

$9x = 72$; therefore $x = 72/9 = 8$.

38. Answer: D - 30

$a_n = a + (n-1)d = 9 + (8-1) \times 3 = 30$.

39. Answer: C - 273

$\text{HCF}(13,21) = 1$; $\text{LCM} = (13 \times 21)/1 = 273$. Therefore the required LCM is 273.

40. Answer: C - 56

Area of a rectangle = length $\times$ width = $8 \times 7 = 56 \text{ cm}^2$.

41. Answer: A - 2/7

Probability = favorable outcomes / total outcomes = $4/14 = 2/7$.

42. Answer: B - 42

The values are already ordered. For 5 observations, the median is the 3rd value, which is 42.

43. Answer: D - North

The largest value in the table is 470, corresponding to North.

44. Answer: B - Either statement alone is sufficient

I gives $x=12$. II gives $x=\sqrt{144}=12$ because x is stated positive. Hence either statement alone is sufficient.

45. Answer: C - 90

15% of 600 = $(15/100) \times 600 = 90$.

46. Answer: A - 60

Total parts = 7. First quantity = $5/7 \times 84 = 60$.

47. Answer: B - 1320

SP = $\text{CP} \times (100 + \text{profit}\%)/100 = 1200 \times 110/100 = \text{Rs } 1320$.

48. Answer: C - 26

Increase in average = increase in total / number of values = $63/9 = 7$. New average = $19+7 = 26$.

49. Answer: D - 900

SI = $PRT/100 = 2500 \times 12 \times 3/100 = \text{Rs } 900$.

50. Answer: C - 72

Distance = speed $\times$ time = $36 \times 2 = 72 \text{ km}$.

51. Answer: C - 5.14

Combined rate = $1/6 + 1/36$. Time = $1 / \text{combined rate} = 5.14 \text{ days}$.

52. Answer: D - 20

$7x = 140$; therefore $x = 140/7 = 20$.

53. Answer: A - 42

$a_n = a + (n-1)d = 14 + (8-1) \times 4 = 42$.

54. Answer: B - 1

$\text{HCF}(17,10) = 1$; $\text{LCM} = (17 \times 10)/1 = 170$. Therefore the required HCF is 1.

55. Answer: D - 130

Area of a rectangle = length $\times$ width = $13 \times 10 = 130 \text{ cm}^2$.

56. Answer: B - 9/25

Probability = favorable outcomes / total outcomes = $9/25 = 9/25$.

57. Answer: D - 41

The values are already ordered. For 5 observations, the median is the 3rd value, which is 41.

58. Answer: C - North

The largest value in the table is 260, corresponding to North.

59. Answer: C - 96

30% of 320 = $(30/100) \times 320 = 96$.

60. Answer: C - 216

Total parts = 13. First quantity = $9/13 \times 312 = 216$.

Logical Capability**61. Answer: A - Maternal uncle**

Charan is the brother of Bala's mother, so Charan is Bala's maternal uncle.

62. Answer: B - All pens are boats

If every pens belongs to cycles, and every cycles belongs to boats, then every pens must also belong to boats.

63. Answer: B - Maternal uncle

Hari is the brother of Farah's mother, so Hari is Farah's maternal uncle.

64. Answer: B - D

The statements form the complete order $D > B > A > C$, so D is first.

65. Answer: C - All books are planes

If every books belongs to boats, and every boats belongs to planes, then every books must also belong to planes.

66. Answer: D - Sunday

Using standard calendar day calculation, 19-09-2032 falls on Sunday.

67. Answer: A - Maternal uncle

Gopal is the brother of Charan's mother, so Gopal is Charan's maternal uncle.

68. Answer: C - All books are planes

If every books belongs to cycles, and every cycles belongs to planes, then every books must also belong to planes.

69. Answer: C - 25 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 25 degrees.

70. Answer: B - Maternal uncle

Farah is the brother of Charan's mother, so Farah is Charan's maternal uncle.

71. Answer: C - All planes are pens

If every planes belongs to boats, and every boats belongs to pens, then every planes must also belong to pens.

72. Answer: C - Friday

Using standard calendar day calculation, 18-10-2030 falls on Friday.

73. Answer: A - Maternal uncle

Arun is the brother of Gopal's mother, so Arun is Gopal's maternal uncle.

74. Answer: A - All cycles are buses

If every cycles belongs to planes, and every planes belongs to buses, then every cycles must also belong to buses.

75. Answer: C - 85 degrees

Hour-hand angle = $30h + 0.5m$; minute-hand angle = $6m$. Their smaller difference is 85 degrees.

76. Answer: B - Maternal uncle

Hari is the brother of Deepa's mother, so Hari is Deepa's maternal uncle.

77. Answer: D - All planes are buses

If every planes belongs to cycles, and every cycles belongs to buses, then every planes must also belong to buses.

78. Answer: C - Wednesday

Using standard calendar day calculation, 19-11-2031 falls on Wednesday.

79. Answer: A - Maternal uncle

Deepa is the brother of Charan's mother, so Deepa is Charan's maternal uncle.

80. Answer: C - All cycles are trains

If every cycles belongs to pens, and every pens belongs to trains, then every cycles must also belong to trains.

Mental Reasoning**81. Answer: C - 23**

Rank from bottom = total - rank from top + 1 = $44 - 22 + 1 = 23$.

82. Answer: C - 57

Ascending order is 35, 44, 57, 92, 93; the middle (3rd) number is 57.

83. Answer: D - 70

Ascending order is 10, 30, 70, 91, 95; the middle (3rd) number is 70.

84. Answer: D - 50

Rank from bottom = total - rank from top + 1 = $52 - 3 + 1 = 50$.

85. Answer: C - 66

Ascending order is 58, 63, 66, 72, 74; the middle (3rd) number is 66.

86. Answer: D - 12

Rank from bottom = total - rank from top + 1 = $32 - 21 + 1 = 12$.

87. Answer: B - 60

Ascending order is 35, 46, 60, 72, 87; the middle (3rd) number is 60.

88. Answer: B - 13

The series increases by 2 each time, so the next term is $11 + 2 = 13$.

89. Answer: B - 26

Rank from bottom = total - rank from top + 1 = $54 - 29 + 1 = 26$.

90. Answer: A - 35

Ascending order is 14, 34, 35, 66, 68; the middle (3rd) number is 35.

91. Answer: A - 20

The series increases by 3 each time, so the next term is $17 + 3 = 20$.

92. Answer: A - 28

Rank from bottom = total - rank from top + 1 = $38 - 11 + 1 = 28$.

93. Answer: C - 85

Ascending order is 23, 79, 85, 92, 93; the middle (3rd) number is 85.

94. Answer: C - 46

The series increases by 8 each time, so the next term is $38 + 8 = 46$.

95. Answer: C - 15

Rank from bottom = total - rank from top + 1 = $43 - 29 + 1 = 15$.

96. Answer: B - 52

Ascending order is 13, 41, 52, 56, 78; the middle (3rd) number is 52.

97. Answer: A - 21

The series increases by 3 each time, so the next term is $18 + 3 = 21$.

98. Answer: C - 24

Rank from bottom = total - rank from top + 1 = $51 - 28 + 1 = 24$.

99. Answer: C - 52

Ascending order is 37, 42, 52, 56, 82; the middle (3rd) number is 52.

100. Answer: A - 33

The series increases by 6 each time, so the next term is $27 + 6 = 33$.

EXAMGURUX

END OF BOOK

For updated exam information, candidates should always refer to official Railway Recruitment Board websites and notices.

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