

BASED ON THE LATEST PATTERN

# RAILWAY

## MATHEMATICS



### USEFUL FOR

RRB ALP/Technician, RRB NTPC, RRB Group D, RRB JE  
& All Other Railway Exams

### KEY FEATURES

- Units Covered  
**Arithmetic, Advance Maths,  
Data Interpretation**
- Simplified Language for  
**Better Conceptual Understanding**



**Comprehensive  
Coverage**  
of Latest Syllabus



**PYPs & MCQs**  
Chapter-wise



**Previous Year  
Questions** (from  
2016 & onwards)

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# SIMPLIFICATION

1.  $[(169 \times 121) \div (11 \times 13)] - 3 = ?$  [RRB NTPC 2017]  
 A) 135 B) 140  
 C) 137 D) 143
2.  $(1 + 2/3) \div [(1 + 1/3) \div (2/3 + 1)] = ?$  [RRB NTPC 2017]  
 A) 4/3 B) 3/4  
 C) 12/25 D) 25/12
3. Compute:  $4992 \div 624 - 10$  [RRB NTPC 2017]  
 A)  $\frac{2469}{307}$  B) -2  
 C) 2 D)  $\frac{2496}{307}$
4. Solve  $(3.2 \times 10^4) \div (2 \times 10^5)$  [RRB NTPC 2017]  
 A)  $\frac{16}{10^2}$  B) 0.016  
 C) 1.6 D) 1.06
5. Compute:  $3108 \div 259 - 10$  [RRB NTPC 2017]  
 A)  $\frac{1063}{83}$  B) 2  
 C) -2 D)  $\frac{1036}{83}$
6. Which one of the following operations will result in 26? [RRB NTPC 2017]  
 A)  $18 \times 16 \div 12 - 11 + 13$  B)  $18 + 16 - 12 \times 11 \div 13$   
 C)  $18 \div 16 + 12 - 11 \times 13$  D)  $18 - 16 \times 12 \div 11 + 13$
7. What will the value of the following expression be?  
 $20 - [15 - \{4 - (8 - 6 + 3)\}]$  [RRB NTPC 2021]  
 A) 4 B) 8  
 C) 5 D) 6
8. What will the value of the following expression be?  
 $(\frac{6+3}{3}) - 5 \times (4 + 5)$  [RRB NTPC 2021]  
 A) -24 B) 24  
 C) 42 D) -42
9. What is the value of the following expression?  
 $103 - [144 \div (12 \times 12) + 5 + 12 \div (6 - 2) + 10]$  [RRB NTPC 2021]  
 A) 85 B) 84  
 C) 90 D) 86
10. What is the value of  $(6 + 4) \times \frac{4}{2} + 5 - 3$ ? [RRB NTPC 2021]  
 A) 42 B) 12  
 C) 24 D) 22
11. What is the value of  $\frac{(6 \times 2)}{(8 - 1 + 5)}$ ? [RRB NTPC 2021]  
 A) 1 B) 6  
 C) 9 D) 2
12.  $1800 \div (11 \times 24 \div 8 \times 3 - 69)^2$  [RRB NTPC 2021]  
 A) 3 B) 4  
 C) 2 D) 5
13. Solve the following:  
 $240 \div 8 \times 512 \div 4$  [RRB NTPC 2021]  
 A) 4040 B) 3340  
 C) 3940 D) 3840
14. What will be the value of the following expression?  
 $0.25 \div 0.0025 \times 0.025 \times 25$  [RRB NTPC 2021]  
 A) 62.5 B) 0.625  
 C) 625 D) 6.25
15. simplify.  
 $25 \div 10 - \left\{ \frac{7}{4} \times \frac{1}{3} \right\} \times \frac{6}{5} + \frac{14}{3} \times \frac{9}{10} - \left\{ \frac{1}{5} \div \frac{1}{25} \right\}$  [RRB NTPC 2021]  
 A) 11 B) 10  
 C) 5 D) 1
16. Simplify.  
 $15 - 6.3 \div 7 + 3 \times 1.3 - 2$  [RRB NTPC 2021]  
 A) 17 B) 18  
 C) 16 D) 19
17. Simplify.  
 $17 - 4 \times (5.4 \div 9) + 6 \times 1.9$  [RRB NTPC 2021]  
 A) 26 B) 22  
 C) 24 D) 28
18. Find the value of  $18 - [6 - \{4 - (8 - (6 + 3))\}]$  [RRB NTPC 2021]  
 A) 11 B) 3  
 C) 6 D) 17
19. Find the value of  $7 + 5 - 2 \times (7 + 89) - 94 \div 2 + (33 \div 3 + 9 \times 2 - 7) \div 11$ . [RRB NTPC 2021]  
 A) -235 B) -225  
 C) 245 D) -245
20. Simplify the following.  
 $105 \div 5 \times 3 + 39 - 46$  [RRB NTPC 2021]  
 A) 56 B) 10  
 C) 65 D) 0
21. Simplify.  
 $\frac{46 + \frac{3}{4} \times 32 - 6}{37 - \frac{3}{4} \times (34 - 6)}$  [RRB NTPC 2021]  
 A) 10 B) 6  
 C) 4 D) 8
22. Simplify.  
 $17 \times 8 - 6 + [(27 - 3) \div 6 - 4]$   
 A) 130 B) 142  
 C) 150 D) 136
23.  $100 \div 10 - [-2 + \{-9 + (3 - 6 \text{ of } 2)\}] = \underline{\hspace{2cm}}$ .  
 A) -6 B) 20  
 C) 30 D) 0
24. Solve the following:  
 $80 \div (16 \div 2) + \{[(6 \times 5) - 15 \times 2 + 4] - 12\}$  [RRB NTPC 2021]

- A) - 62  
C) - 17
- 25.** Solve the following.  
 $5 + 3 \times 72 \div 24 - 12 = ?$
- A) 12  
C) 113
- 26.** Simplify:  $1800 \div 10 \times \{45 \div (17 - 2)\} \times 2 + \{-2(1 + 2)\}$
- A) 180  
C) 1074
- 27.** Simplify:  $12 \div (3 \times 2) + 8 \times 4 - 4$
- A) 2  
C) 60
- 28.** Solve the following.  
 $108 \div (36 \times \frac{1}{4}) + \frac{2}{5} \times 3 \frac{1}{4} = ?$
- A)  $13 \frac{3}{10}$   
C)  $\frac{13}{10} + 11$
- 29.** What is the value of the following expression?  
 $(243)^2 \div (27)^2 \times 6 \div 18$
- A) 81  
C) 27
- 30.** Which of the following options is equal to  $16 \div 4 \times 2 - 5 + 1$ ?
- A)  $\{(16 \div 4) \times 2\} - (5 + 1)$   
C)  $\{16 \div (4 \times 2)\} - (5 + 1)$
- 31.** The value of x, if  $3x + 4 \times 8 \div 9 = x \div 3 - 1$ , is:
- A)  $-\frac{41}{24}$   
C) 2
- 32.** The value of  $15 - (6 + 6 \times 6) \div (2 + 5)$  is:
- A) 8  
C) 9
- 33.** The value of  $[3 \div 5 - 8 \text{ of } 4 + 3 \times \{8 \div 2 - (4 + 3)\}]$  is:
- A)  $-\frac{202}{10}$   
C)  $\frac{201}{5}$
- 34.** The value of  $4 \times 5 \div 2 - 8 \times 7 + 9 - (3 + 2)$  is:
- A) -42  
C) 70
- 35.** Solve:  $-4 = -7 + 3x$
- A. -1  
B. 1  
C.  $\frac{11}{3}$   
D.  $\frac{-11}{3}$
- A) B  
C) A
- 36.** The value of  $180 \div 20 \{(15 - 6) + (24 - 18)\}$  is:
- A) 110  
C)  $\frac{9}{15}$
- B) 2  
D) 148
- B) - 22  
D) 2
- B) 0  
D) 114
- B) 1  
D) 30
- [RRB NTPC 2021]
- B) 2  
D) 148
- [RRB NTPC 2021]
- B) 0  
D) 114
- [RRB NTPC 2021]
- B) 1  
D) 30
- [RRB NTPC 2021]
- B)  $\frac{130}{10}$   
D)  $\frac{132}{10}$
- [RRB NTPC 2021]
- B) 162  
D) 1
- [RRB NTPC 2021]
- B)  $\{(16 \div 4) \times 2\} - 5 + 1$   
D)  $\{[16 \div (4 \times 2)] - 5\} + 1$
- [RRB NTPC 2021]
- B)  $\frac{21}{24}$   
D) 1
- [RRB NTPC 2021]
- B) 5  
D) 7
- [RRB NTPC 2021]
- B)  $\frac{101}{5}$   
D)  $-\frac{202}{5}$
- [RRB NTPC 2021]
- B) 21  
D) 35
- [RRB NTPC 2021]
- B) C  
D) D
- [RRB NTPC 2016]
- B) 135  
D) 180
- [RRB NTPC 2016]
- 37.** Find the value of  $216 \div 6 + 6 \times 4 - 10$ .
- A) 150  
C) 72
- 38.** Using BODMAS, simplify the following.  
 $\frac{7}{9} \times \frac{21}{5} \times 25 (65^2 - 55^2)$
- A) 98000  
C) 42000
- 39.** Find the value of  $7 - [3 - \{7 - (5 - (4 - 3))\}]$
- A) 0  
C) 9
- 40.** Simplify:  
 $24 + 7.2 \div 8 - 3 \times 2.3 + 5$
- A) 26  
C) 32
- 41.** Simplify:  
 $186 - 7 \times (63 - 39) + 25 \div 5$
- A) 23  
C) 24
- 42.** The value of  $200 \div (5.23 + 4.77) \times (3/5 - 2/10) + (5 - 2)$  is:
- A) 8  
C) 18
- 43.** Solve the following.  
 $(4 + 2 - 16 \div 4 + 3) + \{(1 + 8 \times 7) \div 19\} \times [(3 + 5 - 4) + (17 - 9 \times 4)] = ?$
- A) -40  
C) 335
- 44.** Compute:  $(50 + 0.5 \times 20) \div 0.7$
- A. 8.571  
B. 857.1  
C. 85.71  
D. 72.85
- A) D  
C) B
- 45.** Simplify:  $(-4.6) \times (-4.6) \div (-4.6 + 0.6)$
- A. -5.29  
B. -0.529  
C. -4.06  
D. 5.01
- A) B  
C) C
- 46.** Solve  $12 - [26 - \{2 + 5 \times (6 - 3)\}]$
- A. 2  
B. 3  
C. 7  
D. 8
- A) B  
C) A
- 47.**  $9876 - ? + 5431 = 5553$
- A. 9754  
B. 9765  
C. 8754  
D. 9854
- [RRB NTPC 2021]
- [RRB NTPC 2021]
- [RRB NTPC 2021]
- [RRB NTPC 2020]
- [RRB NTPC 2020]
- [RRB NTPC 2020]
- [RRB NTPC 2020]
- [RRB NTPC 2016]
- [RRB NTPC 2016]
- [RRB NTPC 2016]
- [RRB NTPC 2016]
- [RRB NTPC 2016]
- [RRB NTPC 2016]
- [RRB NTPC 2016]

- A) A  
C) B
- B) C  
D) D

48.  $2^2 - 3^3 + 4^3 - 6^2 = ?$

- A) 2  
C) 4
- B) 3  
D) 5

49. Compute  $4923 \div 547 - 10$

- A. 1  
B. -1  
C.  $\frac{1641}{176}$   
D.  $\frac{1614}{179}$

- A) A  
C) D
- B) C  
D) B

50. Compute the value of  $69696 \times 9999 = ?$

- A. 696980304  
B. 666890304  
C. 696809304  
D. 696890304

- A) A  
C) B
- B) D  
D) C

51. Compute  $\frac{33800}{\frac{520}{5}}$

- A. 31  
B. 325  
C. 13  
D. 352

- A) D  
C) B
- B) A  
D) C

52. The value of  $0.592 \div 0.8 = ?$

- A. 7.4  
B. 0.74  
C. 740  
D. 0.074

- A) C  
C) D
- B) B  
D) A

53. Find the value of  $374 \times 374 - 374 \times 174$ .

- A. 57500  
B. 60500  
C. 74800  
D. 74550

- A) A  
C) B
- B) D  
D) C

54. Compute  $7497 \div 147 - 8 = ?$

- A. -20  
B. 20  
C. 43  
D.  $7479/116$

- A) D  
C) C
- B) A  
D) B

55. Simplify:  $2^4 \div 2^{-1}$

- A.  $1/32$   
B. 16  
C. 32  
D. 8

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

- A) B  
C) C
- B) A  
D) D

56. Correct expression of  $0.023\overline{36} = x$

- A.  $13/550$   
B.  $236/1000$   
C.  $2\frac{36}{1000}$   
D.  $13/555$

- A) D  
C) C
- B) A  
D) B

57. Compute  $35968 \div 562 \div 8 = ?$

- A. 80  
B. 512  
C. 8  
D. 521

- A) B  
C) D
- B) C  
D) A

58. Find the value of  $200 \times 20 \times 2 \times 0.2 \times 0.02 \times 0.002 = ?$

- A. 0.064  
B. 0.64  
C. 64  
D. 640

- A) C  
C) D
- B) A  
D) B

59.  $(0.2 \times 0.2 \times 0.2) (0.06 \times 0.06 \times 0.06) \div (0.12 \times 0.12 \times 0.12) = ?$

- A. 0.008  
B. 0.001  
C. 0.002  
D. 0.006

- A) D  
C) B
- B) A  
D) C

60. Simplify:  $\{13 + [25 \div (3 + 7)] - (2 \times 6)\}$

- A. 3.5  
B. 0.5  
C. 2.8  
D. 4

- A) A  
C) B
- B) C  
D) D

61. Compute:  $87654 \times 99999$

- A. 8766624336  
B. 8765312346  
C. 8857624336  
D. 8656624426

- A) C  
C) A
- B) B  
D) D

62. Calculate:

$5/7 + 21/31 + 52/33$

- A)  $21350/7161$   
C)  $23250/7161$
- B)  $21250/7161$   
D)  $21240/7161$

63. Simplify:

$237.43 + 7453.32 + 54.12 - 987.23$

- A. 6757.64  
B. 6666.64  
C. 7676.64  
D. 6587.64

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

[RRB NTPC 2016]

- A) A  
C) B
- 64.** The value of  $84 - 4 \div 2 \times 3 + 7$  is: [RRB Group D 2022]  
A) 173  
C) 97
- 65.** Which of the following options is the closest approximate value which will come in place of question mark(?) in the following equation?  
 $2.04 + 5.019 - 3.001 \times 2.04 = ?$   
[RRB Group D 2022]  
A) 1  
C) 5
- 66.** Find the value of  $(3 + 11) \times 4 \div (6 + 1) - 21$   
[RRB Group D 2022]  
A) 15  
C) -13
- 67.** Which of the following options is the closest approximate value which will come in place of the question mark (?) in the following equation?  
 $18.01 \times 3.99 + 9.99 \times 3.99 = ?$   
[RRB Group D 2022]  
A) 92  
C) 122
- 68.** The value of  $2 + [2 + 2 \div \{2 + 2 \div (2 + \frac{1}{3})\}]$  is:  
[RRB Group D 2022]  
A)  $\frac{47}{10}$   
C)  $\frac{67}{10}$
- 69.** Which of the following options is the closest approximate value which will come in place of question mark(?) in the following equation?  
 $4.99 + .99 - 4.01 \times 2 + 3.59 = ?$   
[RRB Group D 2022]  
A) 3  
C) 1
- 70.** The value of  $5^3 - 9^2 + (12 \div 4)^2 - 32 + 8 \times 0 =$   
[RRB Group D 2022]  
A) 61  
C) -15
- 71.** The value of  $47 + \{7 + [61 - (21 \div 3)] \div 9\}$  is:  
A) 40  
C) 100
- 72.** The value of  $(279 \div 31) + (363 \div 33) - (512 \div 16)$  is:  
[RRB Group D 2022]  
A) 9  
C) -12
- 73.** The value of  $5 + (12 - 3 \times 4) - 6 \div 2$  is: [RRB Group D 2022]  
A) 6  
C) 2
- 74.** Which of the following options is the closest approximate value which will come in place of question mark(?) in the following equation?  
 $5.18 \times 4 + 2.06 \times 5 - 10 \div 2 + 1 = ?$   
[RRB Group D 2022]  
A) 15  
C) 26
- 75.** Simplify:  $34 - 66 \div 6 + 18 \times 8$ . [RRB Group D 2022]
- A) 104  
C) -600
- B) 138  
D) 167
- 76.** Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation?  
 $27.92 \times 4 + 3.96 \times 5 - 18 \div 2 + 1 = ?$   
[RRB Group D 2022]  
A) 115  
C) 124
- 77.** The value of  $(6 - 3) \div [(9 - 6) \div \{(6 - 4) \div (2 + \frac{8}{13})\}]$  is:  
[RRB Group D 2022]  
A)  $\frac{5}{17}$   
C)  $\frac{13}{17}$
- B)  $\frac{1}{17}$   
D)  $\frac{26}{17}$
- 78.** Find the value of  $[(12 \div 4) \times \{\frac{12}{3} + \frac{5}{3} \times (7 - 4)\}]$   
A) 54  
C) 36
- B) 45  
D) 27
- 79.** The value of  $3 + 3 \times [(11 - 2) \div 3] - 2 \times 3$  is:  
[RRB Group D 2022]  
A) 7  
C) 9
- B) 6  
D) 8
- 80.** Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation?  
 $23.96 + 24.96 + 23.16 - 18.89 \times 3.04 + 36.13 \div 6.1 = ?$   
[RRB Group D 2022]  
A) 25  
C) 21
- B) 27  
D) 23
- 81.** Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation?  
 $26.52 \times 3.89 - 7.79 \times 2 + 27.39 = ?$   
[RRB Group D 2022]  
A) 82  
C) 136
- B) 181  
D) 119
- 82.** Simplify the given expression.  
 $11 - \{7 - 56 \div (2 \times 3 + 1)\}$   
[RRB Group D 2022]  
A) 9  
C) 10
- B) 11  
D) 12
- 83.** The value of  $40 - [3 - \{4 - (6 - \overline{6 - 4})\}]$  is \_\_\_\_\_.  
A) 100  
C) 47
- B) 300  
D) 37
- 84.** The expression  $(3.7)^3 - 3 \times (3.7)^2 \times (0.7) + 3(3.7) \times (0.7)^2 - (0.7)^3$  is equal to:  
[RRB Group D 2022]  
A) 27  
C) 30
- B) 10  
D) 35
- 85.** Which of the following represents the closest approximate value that should come in place of the question mark (?) in the following equation?  
 $(\sqrt{360} + 12 \div 6 \times 3 - \sqrt{170}) \div 2 = ?$   
[RRB Group D 2022]  
A) 6  
C) 8
- B) 4  
D) 5
- 86.** The value of  $-48 \div [4 \times (6 - 5 + 1)] \div 24 =$   
[RRB Group D 2022]

- A) 12  
B)  $-\frac{7}{4}$   
C)  $-\frac{1}{4}$   
D) -9
87.  $\{[(54.36 \times 0.4) + 0.256] \div \sqrt{121}\}$  equals: [RRB Group D 2022]  
A) 1  
B) 22  
C) 11  
D) 2
88. The value of  $\frac{[(0.68)^2 + (0.32)^2 + 16 \times 0.0136]}{[(0.68)^3 - (0.32)^3] \div (0.3)^2}$  is: [RRB Group D 2022]  
A)  $\frac{1}{2}$   
B)  $\frac{1}{4}$   
C)  $\frac{3}{5}$   
D)  $\frac{3}{8}$
89. If  $0.045 + 0.154 - 0.09 + 1.5 - (0.3 \times 0.8) = x - 0.231$ , then the value of x lies between: [RRB Group D 2022]  
A) 1.8 and 2.0  
B) 1.5 and 1.8  
C) 1.1 and 1.3  
D) 1.3 and 1.5
90.  $\{[(324 \div 9) \div 4] \times 25 + 186\}$  equals: [RRB Group D 2022]  
A) 411  
B) 141  
C) 114  
D) 386
91. The value of  $143 - 144 \div 16 \times 3 - 1$  is: [RRB Group D 2022]  
A) 115  
B) 123  
C) 139  
D) 133
92. Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation?  
 $(\sqrt{142} + 52 \div 26 \times 5 - \sqrt{80}) \times 2 = ?$   
[RRB Group D 2022]  
A) 32  
B) 30  
C) 20  
D) 26
93. Simplify:  $5 + \frac{5 \times 5}{5} - 5$   
A) 25  
B) 15  
C) 10  
D) 5
94. Simplify the following expression:  
 $2.06 - 3.16 + 4.59 - 1.79$   
[RRB NTPC 2022]  
A) 1.75  
B) 1.65  
C) 1.80  
D) 1.70
95. The value of  $36 \div (8 \times 3) - [3 \div \{4 \times \{3 \times 4 \div (5 - 9) + 6\}\}]$  lies between  
[RRB NTPC 2022]  
A) 0.7 and 1  
B) 1 and 1.3  
C) 1.3 and 1.6  
D) 1.6 and 1.9
96. Simplify the following expression:  
 $\frac{2}{3} + \frac{4}{9} \div \left(\frac{7}{2} - \frac{5}{6}\right)$   
[RRB NTPC 2022]  
A)  $\frac{11}{12}$   
B)  $\frac{5}{6}$   
C) 1  
D)  $\frac{7}{6}$
97. Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation?  
 $17.821 + 178.21 - ? = 169.93$   
[RRB NTPC 2022]  
A) 49  
B) 58  
C) 19  
D) 26
98. Solve:  $(4 + 2) \text{ of } 9 - 6 \times 2 + \frac{5}{5}$  [RRB NTPC 2022]  
A) 45  
B) 44  
C) 41  
D) 43

99. The value of  $49 - [35 + \{12 \div 3 \text{ of } (6 + 7 - 12)\}]$  is: [RRB NTPC 2022]  
A) -8  
B) -12  
C) 10  
D) 9
100. The value of  $\frac{(11\frac{11}{12} \times 1\frac{3}{13} \div 2\frac{3}{4}) \div (\frac{7}{10} \div (\frac{3}{4} \times 1\frac{2}{5}))}{\frac{1}{4} \times \frac{2}{3} \times 2\frac{2}{5}}$  is [RRB NTPC 2022]  
A)  $1\frac{1}{5}$   
B) 20  
C)  $3\frac{1}{5}$   
D) 10
101. The value of the expression  $43\frac{2}{3} \div [35 + \frac{3}{4} \text{ of } 24 + (42 \div 7 - 5\frac{1}{3})]$  is [RRB NTPC 2022]  
A)  $\frac{121}{161}$   
B)  $\frac{91}{161}$   
C)  $\frac{131}{161}$   
D)  $\frac{109}{161}$
102. Simplify the following expression:  
 $(15 \div 3) - \{[(19 - 1) \div 2] - [5 \times 20 - (7 \times 9 - (-2))]\}$   
[RRB NTPC 2022]  
A) -21  
B) 35  
C) 31  
D) 21
103. The value of  $\frac{3}{4} \times 2\frac{2}{3} \div \frac{5}{9} \text{ of } 1\frac{1}{5} - \frac{3}{5} \text{ of } (\frac{2}{3} \div \frac{2}{3} \text{ of } \frac{3}{2}) + \frac{4}{5} \times 1\frac{1}{9} \div \frac{8}{15} - \frac{2}{3}$  is: [RRB NTPC 2022]  
A)  $1\frac{3}{10}$   
B)  $3\frac{9}{10}$   
C)  $3\frac{3}{5}$   
D)  $4\frac{2}{5}$
104. Simplify the following:  
 $10 - \frac{[\frac{3}{4} + \{4\frac{1}{2} - (\frac{1}{4} + \frac{1}{84})\}]}{4} = ?$   
[RRB NTPC 2022]  
A)  $3\frac{85}{336}$   
B)  $4\frac{85}{336}$   
C)  $2\frac{85}{336}$   
D)  $1\frac{85}{336}$
105. Simplify the following expression:  
 $\frac{\frac{17}{2} \div \frac{15}{2} \times \frac{13}{2}}{\frac{17}{2} \div (\frac{15}{2} \times \frac{13}{2})} \div \frac{169}{30}$   
[RRB NTPC 2022]  
A) 6  
B)  $7\frac{1}{2}$   
C) 7  
D)  $6\frac{1}{2}$
106. Simplify the following expression:  
 $10 - 18 \div 3 \times 3 + 27 \div 3^2$   
[RRB NTPC 2022]  
A) -5  
B) 11  
C)  $2\frac{1}{9}$   
D) -11
107. Simplify the following expression:  
 $2\frac{1}{6} \times \left\{1\frac{19}{26} + \frac{15}{13} \times \left(\frac{5}{7} \div \frac{25}{14}\right)\right\}$   
[RRB NTPC 2022]  
A)  $4\frac{3}{4}$   
B)  $4\frac{4}{5}$   
C)  $4\frac{5}{6}$   
D)  $4\frac{2}{3}$
108. If  $1\frac{1}{4} \times (5\frac{3}{4} \div \frac{2}{7} \text{ of } k) \div 2\frac{7}{8} - 3\frac{3}{4} = (17 - 4) \div 2 \text{ of } 2$ , then what is the value of  $\frac{k+1}{k-1}$ ? [RRB NTPC 2022]



- A) 7  
C)  $\frac{5}{2}$
- B)  $\frac{11}{3}$   
D) 9

109. The value of  $(1\frac{1}{3} \times 1\frac{4}{5} \div \frac{3}{5}) \times \frac{3}{8} - \frac{2}{3}$  is: [RRB NTPC 2022]

- A)  $\frac{3}{2}$   
C)  $\frac{5}{6}$
- B)  $\frac{1}{4}$   
D)  $\frac{7}{2}$

110. The value of  $84 \div 32 \times 8 - 15 \div 8 \times (19 - 35)$  is: [RRB NTPC 2022]

- A) 45  
C) 51
- B) 38  
D) 42

111. The value of  $72 \div 4 \times \{8 \times 4 - (14 - 19)\}$  is: [RRB NTPC 2022]

- A) 666  
C) 444
- B) 1296  
D) 222

112. If  $\left[2\frac{7}{8} - \left\{3 - \left(1\frac{1}{4} - \frac{5}{8}\right)\right\}\right] + P \times \frac{1}{8} = 0$ , then what is the value of P? [RRB NTPC 2022]

- A) -4  
C) 4
- B) 2  
D) -2

113. Which of the following values can replace K in  $7\frac{3}{5} \times 4\frac{1}{2} - K = 26\frac{3}{4}$ ? [RRB NTPC 2022]

- A)  $2\frac{1}{2}$   
C)  $7\frac{9}{20}$
- B)  $9\frac{7}{20}$   
D) 2

114. What is the value of  $\frac{27}{5} \times \frac{15}{81} \div \left\{\frac{14}{77} \times \frac{86}{72} \times \frac{99}{43}\right\}$ ? [RRB NTPC 2022]

- A) 3  
C) 4
- B) 2  
D) 5

115. If  $a = \frac{17}{99}$ ,  $b = \frac{13}{47}$  and  $c = \frac{34}{33}$ , then what is the value of  $(ab) \div c = ?$  [RRB NTPC 2022]

- A)  $\frac{17}{264}$   
C)  $\frac{19}{289}$
- B)  $\frac{13}{282}$   
D)  $\frac{21}{354}$

116. If  $\div$  means addition,  $\times$  means subtraction,  $+$  means multiplication and  $-$  means division, then  $30 - 10 + 4 \times 6 \div 4 = ?$  [RRB NTPC 2022]

- A) 11  
C) 13
- B) 10  
D) 12

117. Simplify the following expression:  $3.5 \times 0.5 \times (4.4 - 0.625 \div 1.5625)$  [RRB NTPC 2022]

- A) 7  
C) 1.75
- B) 14  
D) 10.5

118. The value of  $5 - 10 \div 5 \times 2 - [12 \div 6 \text{ of } \{5 \times 6 \div (6 - 9) + 13\} \times (8 \div 4 \text{ of } 3)]$  is [RRB NTPC 2022]

- A) 5/6  
C) 5/9
- B) 2/3  
D) 4/9

119. Find the value of x in the following equation:  $\left[1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{x}}}}\right] \div 1 \frac{6}{11} = \frac{x}{2}$  [RRB NTPC 2022]

- A) 2  
C)  $\frac{1}{2}$
- B) 1  
D)  $\frac{2}{3}$

120. If  $32\% \text{ of } 22.5 - \frac{2}{3} \times \sqrt[3]{512} \times \sqrt{81} = y$ , then the value of y is: [RRB NTPC 2022]

- A) -40.2  
C) -40.8
- B) -41.2  
D) -41.8

121.  $\frac{9}{15} \times \frac{45}{81} \times \left\{\frac{49}{6} \times \left(\frac{16}{7} - 2\right)\right\} \times \frac{24}{5} \div \frac{16}{15} = ?$  [RRB NTPC 2022]

- A)  $\frac{5}{9}$   
C)  $\frac{2}{7}$
- B)  $\frac{7}{2}$   
D)  $\frac{9}{5}$

122. If  $27 \times 3 \times 896 \div \sqrt{3136} = y + 640$ , then find the value of y. [RRB NTPC 2022]

- A) 666  
C) 664
- B) 648  
D) 656

123. Find the value of  $(162 \div 9) \div 3 - (343 \div 49) \div 7$ . [RRB NTPC 2022]

- A)  $-\frac{1}{7}$   
C) 53
- B) 5  
D) -1

124. 29.5% of a number is 0.59. What is that number? [RRB NTPC 2022]

- A) 2.4  
C) 2.5
- B) 2  
D) 1.8

125. Simplify:  $65 - [40 - (60 \div 5 - (18 - 24 \div 4) \div 6)]$  [RRB NTPC 2022]

- A) 40  
C) 30
- B) 35  
D) 37

126. Simplify:  $18 + 48 \div 12 \times (32 \div 4)^2 - 8$  [RRB NTPC 2022]

- A) 344  
C) 242
- B) 266  
D) 308

127. Simplify:  $30 \div (40 \div 2^2 \times 10 \div 5) \times 6 - 4$  [RRB NTPC 2022]

- A) 5  
C) 896
- B) 300  
D) -3.75

128. Simplify:  $[(7 \times 9) + (3 \times 8) + 3] \div [(9 \times 4) + (72 \div 8)]$  [RRB NTPC 2022]

- A) 5  
C) 2
- B) 4  
D) 3

129. The value of  $\frac{12 - [(3-5) \times 4] \div 8 - 8 + [6 \div (12 \times 2)]}{9 \times 15 \div (12 \times 10) - [12 \div (6 \times 2)]}$  is: [RRB NTPC 2022]

- A) 42  
C) 48
- B)  $\frac{21}{17}$   
D)  $\frac{3}{4}$

130. Simplify the following expression:  $\frac{12 - 6 \div 2 + 4}{3^2 \times 3 - 7 + 6}$  [RRB NTPC 2022]

- A)  $\frac{1}{2}$   
C)  $\frac{13}{18}$
- B)  $\frac{11}{26}$   
D)  $\frac{11}{18}$

131. If  $56 \div 14 \times 2^2 - 12 \times 6 \div 3 + 10 = z$ , then find the value of z. [RRB NTPC 2022]

- A) 3  
C) 6
- B) 4  
D) 2

132. Find the value of the expression:  $1 - \frac{(4 \div 5 - 1 \times 3 + 2) \times 8}{3^2 \times 8 - 4 \times 2}$

- A)  $\frac{39}{40}$  B)  $\frac{41}{40}$   
 C) 0 D)  $\frac{5}{8}$

133. Simplify:

$$72 - 4(40 + 24 \div 8 \times 6 - 4 \times 4) + 20$$

- A) -36 B) 52  
 C) -76 D) -6

134. Simplify the expression.  $95 \div 15 - 34 \div \{18 - 4 \div (3 \times 12) \times 9\} \times 2$

- A)  $-\frac{95}{986}$  B)  $2\frac{5}{9}$   
 C)  $5\frac{1}{3}$  D)  $2\frac{1}{3}$

135.  $56 \div \left[ \frac{1}{3} \left\{ 15 + 12 - \left( 9 + 6 - \overline{5 + 7} \right) \right\} \right] = ?$

- A) 12 B) 4032  
 C) 7 D) 448

136.  $22 - \left[ 23 - \left\{ 24 - \left( 27 - \overline{25 - 30} \right) \right\} \right] = ?$

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

137.  $(136 \div 17) + (17 \times 13) - (103 - 85) \times (62 + 145) \div 23 = ?$

- A) 75 B) 67  
 C) 59 D) 76

138.  $-15 - (-18 - 35 \div 5) = ?$

- A) 10 B) -14  
 C) -2 D) 6

139. What will come in the place of the question mark '?' in the following question?

$$66 \div [67 - \{43 - (17 - 117 \div 9 \times 4)\}] = ?$$

- A) -6 B) 11  
 C) 6 D) -11

140.  $119 \div [22 - \{90 \div (23 - 105 \div (7 \times 3))\}] = ?$

- A) 4 B) 12  
 C) 3 D) 7

141.  $70 \div 5 \times (10 - 8 \div 2) \div 3 = ?$

- A) 28 B) 3  
 C)  $\frac{1}{3}$  D) 7

142.  $63 - (-3)(-2 - 8 - 4) \div [3 \{5 + (-2)(-1)\}] = ?$

- A) 65 B) 60  
 C) -60 D) 61

143.  $162 \div \left[ 51 - \left\{ 29 - \left( 9 - \overline{6 + 7} \right) \right\} \right] = ?$

- A) 18 B) 14  
 C) 7 D) 9

144.  $119 \div \left[ 22 - \left\{ 90 \div \left( 23 - 105 \div \overline{7 \times 3} \right) \right\} \right] = ?$

- A) 7 B) 12  
 C) 3 D) 4

145.  $15 \times 3 - 9 \times (5^2 \div 5) \div 5 \div (1 \div 3) + 10 = ?$

- A) 28 B) 18  
 C) 8 D) 30

146. What is twice the value of p if  $p = 36 - 2(20 + 12 \div 4 \times 3 - 2 \times 2) + 10$ ?

[RRB NTPC 2022]

- A) -4 B) -10  
 C) -2 D) -8

147. What would be get when 8 kg 25 g is multiplied by 25?

- A) 200 kg B) 200.625 kg  
 C) 199.625 kg D) 199 kg

148. Find the value of  $22 - \left[ 23 - \left\{ 24 - \left( 27 - \overline{29 - 30} \right) \right\} \right]$ .

- A) 1 B) -3  
 C) -4 D) -5

149.  $75 \div [35 - \{63 - (79 - 54 \div 9 \times 6)\}] = ?$

- A) 3 B) 5  
 C) 25 D) 15

150.  $\left\{ 40 - \left( 90 \div 5 \times \overline{16 - 8} \div 2 \div 3 \right) \right\} = ?$

- A) 16 B) 28  
 C) 64 D) 14

151.  $(-18) [36 \div \{7 - (-2)\}] \div [(-4)\{19 - (-3) \times (-5)\}] = ?$

- A) -4.5 B) 4.5  
 C) 2.5 D) -2.5

152.  $(-12)[11 + \{7 \times (-3)\}] \div [4 \{13 - (-3) \times (-6)\}] = ?$

- A) -6 B) -4  
 C) 4 D) -2

153.  $80 \div [48 - \{56 - (60 - 36 \div 12 \times 4)\}] = ?$

- A) 5 B) 8  
 C) 4 D) 2

154.  $\{52 - (9 - 2)\} \div [3 \times \{1 + (-2) \times (-2)\}] = ?$

- A) 3 B) -9  
 C) 9 D) -5

155.  $\frac{3}{12}$  of  $\frac{\left(\frac{2}{5} + \frac{4}{15}\right)}{\left(\frac{3}{5} - \frac{2}{5}\right)} = ?$

- A)  $\frac{5}{7}$  B)  $\frac{5}{6}$   
 C)  $\frac{6}{5}$  D)  $\frac{2}{6}$

156.  $4 + 3 \times 4 + 3 \times 4^2 + 3 \times 4^3 + 3 \times 4^4 + 3 \times 4^5 = ?$

- A)  $5 \times 4^5$  B)  $9 \times 4^4$   
 C)  $4^6$  D)  $10 \times 4^4$

157.  $138 \div [35 - \{53 - (89 - 72 \div 9 \times 6)\}] = ?$

- A) 2 B) 6  
 C) 23 D) 3

158.  $551 \div 29 = 19$ , then  $5.51 \div 0.0019 = ?$

- A) 2.9 B) 290  
 C) 2900 D) 0.29

159. What is the value of X, if  $7580 - X = 3440$ ?

- A) 4150 B) 5140  
 C) 4130 D) 4140

160. How much would one need to add to the difference of 5.42 and 3.56 to get 10?

- A) 8.14 B) 6.44  
 C) 1.02 D) 4.58

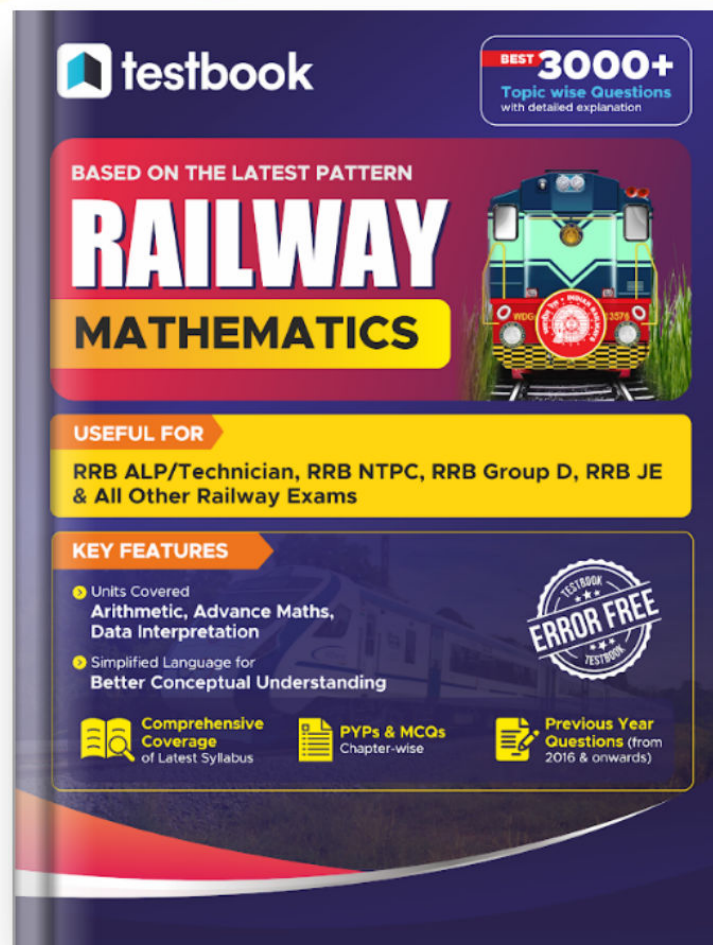
161. Simplify the following expression:

$$\left(\frac{2}{3} \times \frac{1}{6}\right) + \left(\frac{2}{3} \times \frac{7}{2}\right) - \left(\frac{13}{4} \times \frac{4}{3}\right) = ?$$

- A) 14/3  
C) 29/3
- B) -17/9  
D) 23/9
- [RRB Group D 2018]
- 162.** Simplify:  $\left(\frac{5}{8} + \frac{3}{4}\right) \text{ of } \frac{4}{11} \div \frac{3}{16} - \frac{1}{2} \times \frac{3}{4} = ?$
- A)  $3\frac{2}{13}$   
C)  $2\frac{7}{24}$
- B)  $3\frac{4}{11}$   
D) 1
- 163.** Simplify the following expression:  
 $\left(\frac{3}{11} \times \frac{33}{6}\right) - \left(\frac{9}{4} \times \frac{12}{3}\right) + \left(\frac{5}{11} \times \frac{22}{10}\right)$
- A) (-9)/2  
C) 13/2
- B) (-13)/2  
D) 9/2
- [RRB Group D 2018]
- 164.** Simplify the following expression  
 $\left(\frac{3}{2} \times \frac{1}{6}\right) + \left(\frac{5}{3} \times \frac{7}{2}\right) - \left(\frac{13}{4} \times \frac{4}{3}\right) = ?$
- A) 12/21  
C) 36/21
- B) 21/12  
D) 41/12
- [RRB Group D 2018]
- 165.** Find the value of  $|21 \div (-7) + 12| \times 21 + 5$ .
- A) 194  
C) 149
- B) 491  
D) 419
- [RRB Group D 2018]
- 166.** Evaluate:  $40 - (7 \times 3 + 24 \div 8 \times 3 - 4 \times 2) + 12$
- A) 30  
C) 40
- B) 10  
D) 20
- [RRB Group D 2018]
- 167.** Solve the following expression:  $5.032 + 150.03 + 40.00 - 30.50 = ?$
- A) 164.562  
C) 264.562
- B) 154.562  
D) 165.562
- [RRB Group D 2018]
- 168.** Evaluate:  $4^2 \times \{(2 + 3) - 11\}$
- A) 40  
C) 80
- B) -10  
D) -96
- [RRB Group D 2018]
- 169.** Evaluate:  $40 - 2\{12 + 13 \div 5 \times 3 - 5 \times 2\} + 19 = ?$
- A) 38.4  
C) 49.2
- B) 38  
D) 39.4
- [RRB Group D 2018]
- 170.** The value of  $20 \div \{[2 \times (3 - 7)] - 15 + 25\}$  is:
- A) -2  
C) 10
- B) 7.5  
D) -1.54
- [RRB Group D 2018]
- 171.**  $132 \times 16 \div 2^3 + 4 = ?$
- A) 792  
C) 264
- B) 176  
D) 268
- [RRB Group D 2018]
- 172.**  $384 \div 2^5 \times 3 + 8 = ?$
- A) 12  
C) 3
- B) 132  
D) 44
- [RRB Group D 2018]
- 173.**  $105 \times 2 \div (3 \times 5) - 6 = ?$
- A) -70  
C) 8
- B) 5  
D) 35
- [RRB Group D 2018]
- 174.**  $66 \times 32 \div 2^3 + 8 = \underline{\hspace{2cm}}?$
- A) 1060  
C) 132
- B) 792  
D) 272
- [RRB Group D 2018]
- 175.**  $3.0005 - 1.748 = ?$
- A) 1.2525  
C) 2.8257
- B) 1.257  
D) 1.9257
- [RRB Group D 2018]
- 176.**  $(55/11) + (18 - 6) \times 9 = ?$
- A) 113  
C) 100
- B) 115  
D) 110
- [RRB Group D 2018]
- 177.**  $\{8 + (2^4 + 3)\} \div 9 = ?$
- A) 3  
C) 4
- B) 9  
D) 8
- [RRB Group D 2018]
- 178.**  $140 \div [61 - \{36 - (40 - 60 \div 12 \times 6)\}] = ?$
- A) 2  
C) 4
- B) 5  
D) 10
- [RRB Group D 2018]
- 179.**  $77 \div [46 - \{66 - (52 - 63 \div 9 \times 3)\}] = ?$
- A) 5  
C) 11
- B) 6  
D) 7
- [RRB Group D 2018]
- 180.**  $(-5) [20 - (-2) \times (-8)] = ?$
- A) 180  
C) -20
- B) 20  
D) -180
- [RRB Group D 2018]
- 181.**  $2 - [3 - \{6 - (5 - 4 - 3 + 10)\}] = ?$
- A) 4  
C) 1
- B) 2  
D) -3
- [RRB Group D 2018]
- 182.**  $111 \div [-(5^2) + (-4) \text{ of } \{33 \div (-22 \div (-2))\}] =$
- A) 37  
C) -37
- B) -5  
D) -3
- [RRB Group D 2018]
- 183.** Find the value of  $\{39 - (19 - 44)\} \div \{-4 \times 3 - (-4)\}$
- A) -5  
C) -4
- B) -6  
D) -8
- [RRB Group D 2018]
- 184.**  $\frac{0.9894}{0.97} - \frac{1}{50} =$
- A) 1.2  
C) 1.02
- B) 1  
D) 0.98
- [RRB Group D 2018]
- 185.**  $8 \times \{7 - (-2) \times (-4)\} = ?$
- A) 80  
C) -16
- B) 8  
D) -8
- [RRB Group D 2018]
- 186.**  $92 - [71 + \{4 - (5 - (4 - 2))\}] = ?$
- A) 12  
C) 15
- B) 21  
D) 20
- [RRB Group D 2018]
- 187.**  $\bar{X} = \frac{63.5535}{13.05}$   
Find the value of  $\bar{x}$ ?
- A) 4.46  
C) 4.87
- B) 4.28  
D) 4.48
- [RRB Group D 2018]
- 188.**  $84 \div \left[50 - \left\{4^3 - \left(30 - 128 \div \overline{8 \times 4}\right)\right\}\right] = ?$
- A) 12  
C) 4
- B) 3  
D) 7
- [RRB Group D 2018]
- 189.** Take away 0.15 from 2.4 and add the result to 7.5. what do you get?
- A) 8.75  
C) 9.75
- B) 7.25  
D) 6
- [RRB Group D 2018]
- 190.**  $\{(99 - 1)/7^2\} \times 2 + 8 = ?$
- A) 10  
C) 11
- B) 13  
D) 12
- [RRB Group D 2018]
- 191.**  $104 \div [68 - \{29 - (45 - 56 \div 7 \times 4)\}] = ?$
- A) 4  
C) 8
- B) 2  
D) 13
- [RRB Group D 2018]



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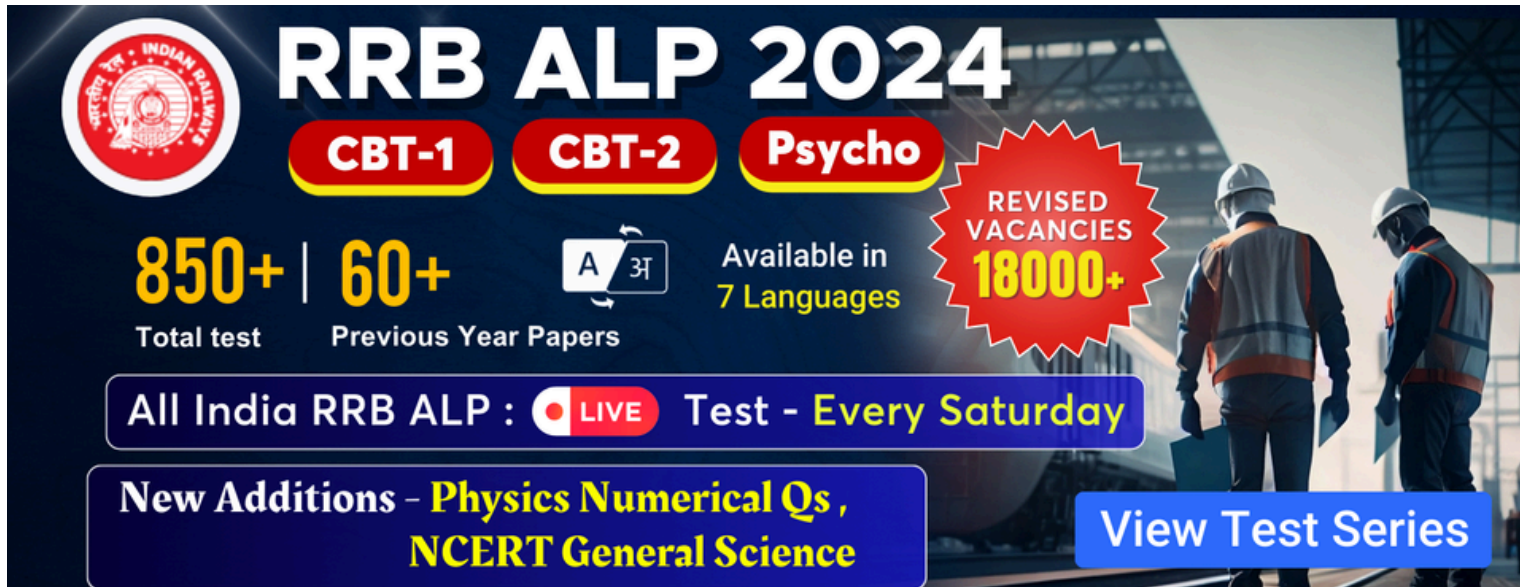
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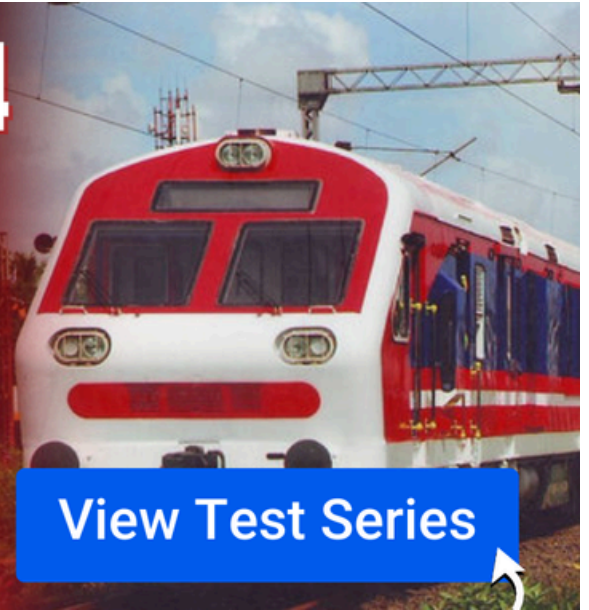
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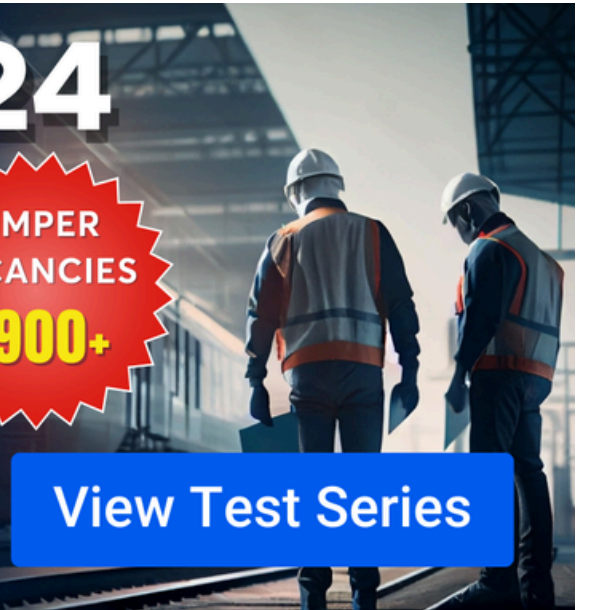
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5.  $3108 \div 259 - 10 \Rightarrow (3108/259) - 10 \Rightarrow 12 - 10 = 2$
6. Step 1:  $18 \times 1.33 - 11 + 13$ , Step 2:  $24 - 11 + 13$ , Step 3:  $24 + 2 = 26$
7.  $20 - [15 - \{4 - (8 - 6 + 3)\}]$   
 $= 20 - [15 - \{4 - (11 - 6)\}] = 20 - [15 - \{4 - 5\}]$   
 $= 20 - [15 - \{-1\}] = 20 - [15 + 1] = 20 - 16 = 4$
8.  $\frac{(6+3)}{3} - 5 \times (4 + 5) \Rightarrow 3 - 5 \times (9) = 3 - 45 \Rightarrow -42$
9.  $103 - [(144 \div (12 \times 12)) + 5 + (12 \div (6 - 2)) + 10]$   
 $\Rightarrow 103 - [(144 \div 144) + 5 + (12 \div 4) + 10]$   
 $\Rightarrow 103 - [1 + 5 + 3 + 10] \Rightarrow 103 - 19 = 84$
10.  $(6 + 4) \times \frac{4}{2} + 5 - 3 \Rightarrow 10 \times 2 + 5 - 3 \Rightarrow 20 + 2 = 22$
11.  $\frac{6 \times 2}{8 - 1 + 5} = \frac{12}{12} = 1$   
 Therefore, the value  $\frac{6 \times 2}{8 - 1 + 5}$  is 1.
12.  $1800 \div (11 \times 24 \div 8 \times 3 - 69)^2 = 1800 \div (11 \times 3 \times 3 - 69)^2$   
 $= 1800 \div (99 - 69)^2 = 1800 \div (30)^2 = 1800 \div 900 = 2$
13.  $240 \div 8 \times 512 \div 4 = 30 \times 128 = 3840$
14.  $0.25 \div 0.0025 \times 0.025 \times 25 = 100 \times 0.025 \times 25 = 2.5 \times 25 = 62.5$
15.  $25 \div 10 - \left\{ \frac{7}{4} \times \frac{1}{3} \right\} \times \frac{6}{5} + \frac{14}{3} \times \frac{9}{10} - \left\{ \frac{1}{5} \div \frac{1}{25} \right\}$   
 $\Rightarrow 25 \div 10 - (7/12) \times (6/5) + (14/3) \times (9/10) - 5$   
 $\Rightarrow (5/2) - (7/10) + (21/5) - 5 \Rightarrow 67/10 - 7/10 - 5 \Rightarrow 1$
16.  $15 - 6.3 \div 7 + 3 \times 1.3 - 2 \Rightarrow 15 - 0.9 + 3.9 - 2 \Rightarrow 15 + 3 - 2 \Rightarrow 16$
17.  $17 - 4 \times (5.4 \div 9) + 6 \times 1.9 \Rightarrow 17 - 4 \times 0.6 + 11.4$   
 $\Rightarrow 17 - 2.4 + 11.4 \Rightarrow 17 + 9 \Rightarrow 26$
18. Here, we have  $18 - [6 - \{4 - (8 - (6 + 3))\}]$   
 $\Rightarrow 18 - [6 - \{4 - (8 - 9)\}] \Rightarrow 18 - [6 - \{4 + 1\}] \Rightarrow 18 - [6 - 5] \Rightarrow 18 - 1 = 17$
19.  $7 + 5 - 2 \times (7 + 89) - 94 \div 2 + (33 \div 3 + 9 \times 2 - 7) \div 11$   
 $\Rightarrow 7 + 5 - 2 \times 96 - 94 \div 2 + (33 \div 3 + 9 \times 2 - 7) \div 11$   
 $\Rightarrow 7 + 5 - 2 \times 96 - 94 \div 2 + (11 + 18 - 7) \div 11$   
 $\Rightarrow 7 + 5 - 2 \times 96 - 94 \div 2 + 22 \div 11$   
 $\Rightarrow 7 + 5 - 2 \times 96 - 47 + 2 \Rightarrow -227 + 2 \Rightarrow -225$
20. Here, we have  $105 \div 5 \times 3 + 39 - 46$   
 $\Rightarrow 21 \times 3 + 39 - 46 \Rightarrow 63 + 39 - 46 \Rightarrow 102 - 46 = 56$
21.  $\frac{46 + \frac{3}{4} \times 32 - 6}{37 - \frac{3}{4} \times (34 - 6)} \Rightarrow (46 + 3 \times 8 - 6) / (37 - 3/4 \times (28))$   
 $\Rightarrow (46 + 24 - 6) / (37 - 3/4 \times 7) \Rightarrow (46 + 24 - 6) / (37 - 3 \times 7)$   
 $\Rightarrow 64/16 \Rightarrow 4$
22.  $17 \times 8 - 6 + [(27 - 3) \div 6 - 4]$   
 $\Rightarrow 136 - 6 + [24 \div 6 - 4] \Rightarrow 130 + [4 - 4] \Rightarrow 130 + 0 \Rightarrow 130$
23.  $100 \div 10 - [-2 + \{-9 + (3 - 6 \text{ of } 2)\}] \Rightarrow 10 - [-2 + \{-9 + (3 - 12)\}] \Rightarrow 10 - [-2 + \{-9 - 9\}] \Rightarrow 10 - [-2 - 18] \Rightarrow 10 + 20 = 30$
24.  $80 \div (16 \div 2) + \{[(6 \times 5) - 15 \times 2 + 4] - 12\}$   
 $\Rightarrow 80 \div 8 + \{[30 - 30 + 4] - 12\} \Rightarrow 10 + \{4 - 12\}$   
 $\Rightarrow 10 - 8 \Rightarrow 2$
25.  $5 + 3 \times 72 \div 24 - 12 = ?$   
 $\Rightarrow 5 + 3 \times 3 - 12 = ?, \Rightarrow 5 + 9 - 12 = ?, \Rightarrow 14 - 12 = ?$   
 $\therefore 2 = ?$
26.  $1800 \div 10 \times \{45 \div (17 - 2)\} \times 2 + \{-2(1 + 2)\}$   
 $\Rightarrow 180 \times \{45 \div 15\} \times 2 + \{-2 \times 3\} \Rightarrow 180 \times 3 \times 2 - 6 \Rightarrow 1080 - 6 \Rightarrow 1074$
27.  $12 \div (3 \times 2) + 8 \times 4 - 4 \Rightarrow 12 \div 6 + 8 \times 4 - 4$   
 $\Rightarrow 2 + 8 \times 4 - 4 \Rightarrow 2 + 32 - 4 \Rightarrow 30$

28.  $108 \div (36 \times \frac{1}{4}) + \frac{2}{5} \times 3\frac{1}{4}$   
 $= 108 \div (9) + \frac{2}{5} \times 3\frac{1}{4}$   
 $= 12 + \frac{2}{5} \times \frac{13}{4}$   
 $= 12 + \frac{13}{10}$   
 $= \frac{133}{10}$   
 $= 13\frac{3}{10}$
29.  $? = (243)^2 \div (27)^2 \times 6 \div 18$   
 $\Rightarrow ? = 81 \times 6 \div 18 \Rightarrow ? = 27$
30.  $16 \div 4 \times 2 - 5 + 1 = 4 \times 2 - 5 + 1 \Rightarrow 8 - 5 + 1 \Rightarrow 4$   
 Now From the given options; Option 2:  
 $\{[(16 \div 4) \times 2] - 5\} + 1 \Rightarrow \{[(16 \div 4) \times 2] - 5\} + 1$   
 $\Rightarrow \{4 \times 2\} - 5 + 1 \Rightarrow \{8\} - 5 + 1 \Rightarrow 4 \Rightarrow \{ \text{Hence option } \{[(16 \div 4) \times 2] - 5\} + 1 \text{ is correct.}$
31.  $3x + 4 \times 8 \times \frac{1}{9} = x \times \frac{1}{3} - 1$   
 $\Rightarrow 3x + 32/9 = x/3 - 1 \Rightarrow 3x - (x/3) = -1 - (32/9)$   
 $\Rightarrow (9x - x)/3 = (-9 - 32)/9 \Rightarrow 8x/3 = -41/9$   
 $\Rightarrow x = (-41/9) \times (3/8) \Rightarrow x = -41/24$
32.  $15 - (6 + 6 \times 6) \div (2 + 5)$   
 $\Rightarrow 15 - (6 + 36) \times (1/7) \Rightarrow 15 - 42 \times (1/7) \Rightarrow 15 - 6 \Rightarrow 9$
33.  $[3 \div 5 - 8 \text{ of } 4 + 3 \times \{8 \div 2 - (4 + 3)\}]$   
 $\Rightarrow [3 \times (1/5) - 8 \times 4 + 3 \times \{8 \times (1/2) - (7)\}]$   
 $\Rightarrow [(3/5) - 32 + 3 \times \{4 - 7\}] \Rightarrow [(3/5) - 32 + 3 \times (-3)]$   
 $\Rightarrow [(3/5) - 32 - 9] \Rightarrow (3 - 160 - 45)/5 \Rightarrow -202/5$
34.  $4 \times 5 \div 2 - 8 \times 7 + 9 - (3 + 2)$   
 $\Rightarrow 4 \times 5 \times (1/2) - 56 + 9 - 5 \Rightarrow 10 - 56 + 4 \Rightarrow -46 + 4 \Rightarrow -42$
35.  $-4 = -7 + 3x \Rightarrow 3x = 7 - 4$   
 $x = 3/3 \Rightarrow 1$
36.  $180 \div 20 \{(15 - 6) + (24 - 18)\}$  is  $180 \div 20 \{(9 + 6)\}$   
 $\Rightarrow 180 \div 20 (15) \Rightarrow 180 \div 300 \Rightarrow 180 \times (1/300) \Rightarrow 18/30 \Rightarrow 9/15$
37. Here, we have  $216 \div 6 + 6 \times 4 - 10$   
 Now, apply the BODMAS rule,  
 $\Rightarrow 36 + 6 \times 4 - 10 \Rightarrow 36 + 24 - 10 \Rightarrow 60 - 10 = 50$
38.  $(7/9) \times (21/5) \times 25[(652 - 552)]$   
 $\Rightarrow (7/9) \times (21/5) \times 25[4225 - 3025]$   
 $\Rightarrow (7/9) \times (21/5) \times 25[1200] \Rightarrow (7/9) \times (21/5) \times 30000$   
 $\Rightarrow (147/45) \times 30000 \Rightarrow 3.266 \times 30000 = 98000$
39.  $7 - [3 - \{7 - (5 - (4 - 3))\}] = 7 - [3 - \{7 - (5 - (1))\}]$   
 $= 7 - [3 - \{7 - (4)\}] = 7 - [3 - \{3\}] = 7 - 0 = 7$
40.  $? = 24 + 7.2 \div 8 - 3 \times 2.3 + 5 \Rightarrow ? = 24 + 0.9 - 3 \times 2.3 + 5$   
 $\Rightarrow ? = 24 + 0.9 - 6.9 + 5 \Rightarrow ? = 29.9 - 6.9 \Rightarrow ? = 23$
41.  $186 - 7 \times (63 - 39) + 25 \div 5 \Rightarrow 186 - 7 \times 24 + 25 \div 5$   
 $\Rightarrow 186 - 7 \times 24 + 5 \Rightarrow 186 - 168 + 5 \Rightarrow 23$
42.  $200 \div (5.23 + 4.77) \times (3/5 - 2/10) + (5 - 2)$   
 $\Rightarrow 200 \div 10 \times (3/5 - 2/10) + (5 - 2) \Rightarrow 200 \div 10 \times 4/10 + 3$   
 $\Rightarrow 20 \times 4/10 + 3 \Rightarrow 8 + 3 \Rightarrow 11$
43.  $(4 + 2 - 16 \div 4 + 3) + \{(1 + 8 \times 7) \div 19\} \times \{(3 + 5 - 4) + (17 - 9 \times 4)\}$   
 $\Rightarrow (6 - 4 + 3) + \{(57) \div 19\} \times [4 - 19] \Rightarrow 5 + 3 \times (-15)$   
 $\Rightarrow 5 - 45 = -40$
44.  $(50 + 0.5 \times 20) \div 0.7 \Rightarrow (50 + 10) \div 0.7 \Rightarrow 60 \div 0.7 \Rightarrow 85.71$
45.  $(-4.6) \times (-4.6) \div (-4.6 + 0.6) \Rightarrow (-4.6) \times (-4.6) \div (-4)$   
 $\Rightarrow (-4.6) \times (1.15) \Rightarrow -5.29$
46.  $12 - [26 - \{2 + 5 \times (6 - 3)\}] \Rightarrow 12 - [26 - \{2 + 5 \times 3\}]$



$$\Rightarrow 12 - [26 - 17] \Rightarrow 12 - 9 \Rightarrow 3$$

$$47. 9876 - ? + 5431 = 5553 \Rightarrow 9876 + 5431 - 5553 = ? \Rightarrow ? = 9754$$

$$48. 2^2 - 3^3 + 4^3 - 6^2 = 4 - 27 + 64 - 36 = 5$$

$$49. 4923 \div 547 - 10 \Rightarrow 9 - 10 \Rightarrow (-1)$$

$$50. 69696 \times 9999 \Rightarrow 69696 \times (10000 - 1) \Rightarrow 696960000 - 69696 \Rightarrow 696890304$$

$$51. \frac{33800}{520} \Rightarrow 33800 / (5 \times 520) \Rightarrow 13$$

$$52. 0.592 \div 0.8 \Rightarrow 0.74$$

$$53. 374 \times 374 - 374 \times 174 \Rightarrow 374 \times (374 - 174) \Rightarrow 374 \times 200 \Rightarrow 74800$$

$$54. 7497 \div 147 - 8 \Rightarrow 51 - 8 \Rightarrow 43$$

$$55. 2^4 \div 2^{-1} \Rightarrow 2^{4+1} \Rightarrow 2^5 \Rightarrow 2 \times 2 \times 2 \times 2 \times 2 \Rightarrow 32$$

$$56. \text{Suppose, } 0.02\overline{36} = x \text{ ----(i)}$$

Multiply by 100 in equation (i), we get

$$100x = 2.\overline{36} \text{ ----(ii)}$$

Multiply by 100 in equation (ii), we get

$$10000x = 236.\overline{36} \text{ ----(iii)}$$

Subtract equation (ii) from equation (iii)

$$9900x = 234 \Rightarrow x = 234/9900 = 26/1100, x = 13/550$$

$$57. 35968 \div 562 \div 8 \Rightarrow 35968 \times 1/562 \times 1/8 \Rightarrow 8$$

$$58. 200 \times 20 \times 2 \times 0.2 \times 0.02 \times 0.002 \Rightarrow 0.064$$

$$59. (0.2 \times 0.2 \times 0.2) (0.06 \times 0.06 \times 0.06) \div (0.12 \times 0.12 \times 0.12) \Rightarrow (0.2 \times 0.2 \times 0.2) \times (0.06 \times 0.06 \times 0.06) / (0.12 \times 0.12 \times 0.12) \Rightarrow 0.008 \times 1/8 \Rightarrow 0.001$$

$$60. \{13 + [25 \div (3 + 7)] - (2 \times 6)\} \Rightarrow \{13 + [25 \div 10] - 12\} \Rightarrow \{13 + 2.5 - 12\} \Rightarrow 3.5$$

$$61. 87654 \times 99999 \Rightarrow 87654 \times (100000 - 1) \Rightarrow 8765400000 - 87654 \Rightarrow 8765312346$$

$$62. 5/7 + 21/31 + 52/33$$

LCM of 7, 31 and 33 is 7161

$$\Rightarrow \frac{(5 \times 31 \times 33) + (21 \times 7 \times 33) + (52 \times 7 \times 31)}{7161}$$

$$\Rightarrow (5115 + 4851 + 11284) / 7161 \Rightarrow 21250 / 7161$$

$$63. 237.43 + 7453.32 + 54.12 - 987.23$$

$$\Rightarrow (237 + 7453 + 54 - 987) + (0.43 + 0.32 + 0.12 - 0.23) \Rightarrow 6757 + 0.64 \Rightarrow 6757.64$$

$$64. 84 - 4 \div 2 \times 3 + 7 \Rightarrow 84 - 2 \times 3 + 7 \Rightarrow 91 - 6 = 85$$

$$65. 2.04 + 5.019 - 3.001 \times 2.04$$

$$\Rightarrow 2.04 - 3.001 \times 2.04 + 5.019 \Rightarrow 2.04(1 - 3.001) + 5.019 \Rightarrow 2.04(-2.001) + 5.019 \Rightarrow -4.08204 + 5.019 \Rightarrow 0.93696 \sim 1 \therefore 2.04 + 5.019 - 3.001 \times 2.04 = 1$$

$$66. (3 + 11) \times 4 \div (6 + 1) - 21 \Rightarrow (14 \times 4) \div 7 - 21 \Rightarrow 56 \div 7 - 21 \Rightarrow 8 - 21 = -13$$

$$67. 18.01 \times 3.99 + 9.99 \times 3.99$$

$$\Rightarrow (18 + 0.01) \times (4 - 0.01) + (10 - 0.01) \times (4 - 0.01) \Rightarrow 72 - 0.18 + 0.04 - 0.0001 + 40 - 0.1 - 0.04 + 0.0001 \Rightarrow 112 - 0.18 - 0.1 \Rightarrow 112 - 0.28 = 111.72 \approx 112$$

$$68. 2 + [2 + 2 \div \{2 + 2 \div (2 + \frac{1}{3})\}] \Rightarrow 2 + [2 + 2 \div \{2 + 2 \div (\frac{6+1}{3})\}]$$

$$\Rightarrow 2 + [2 + 2 \div \{2 + 2 \div (\frac{7}{3})\}] \Rightarrow 2 + [2 + 2 \div \{2 + (0.86)\}] \Rightarrow 2 + [2 + 2 \div \{2.86\}]$$

$$\Rightarrow 2 + [2 + 0.69] \Rightarrow 2 + 2.69$$

$$\Rightarrow 4.69 \text{ approximately } 4.7$$

$$69. 4.99 + .99 - 4.01 \times 2 + 3.59$$

After replacing the signs from left to right and using the BODMAS rule,

$$= 4.99 + .99 - 4.01 \times 2 + 3.59 = 4.99 + .99 - 8.02 + 3.59$$

$$= 5.98 - 8.02 + 3.59 = -2.04 + 3.59 = 1.55$$

The closest approximate value for 1.55 is 2.

$$70. \Rightarrow 53 - 92 + (12 \div 4)2 - 32 + 8 \times 0 \Rightarrow 53 - 92 + (3)2 - 32 + 8 \times 0 \Rightarrow 53 - 92 + 9 - 32 + 8 \times 0 \Rightarrow 125 - 81 + 9 - 32 + 0 \Rightarrow 134 - 113 + 0 \Rightarrow 21$$

$$71. 47 + \{7 + [61 - (21 \div 3)] \div 9\}$$

$$= 47 + \{7 + [61 - 7] \div 9\} = 47 + \{7 + 54 \div 9\} = 47 + \{7 + 6\}$$

$$= 47 + 13 = 60$$

Hence, the required value is 60.

$$72. (279 \div 31) + (363 \div 33) - (512 \div 16)$$

$$= 9 + 11 - 32 = 20 - 32 = -12$$

73. Now, using BODMAS rule

$$5 + (12 - 3 \times 4) - 6 \div 2, 5 + (12 - 12) - 6 \div 2$$

$$= 5 + 0 - 6 \div 2 = 5 + 0 - 3 = 5 - 3 = 2$$

Hence, the correct answer is "option 3".

74. we will solve division first

$$= 5.18 \times 4 + 2.06 \times 5 - (10 \div 2) + 1 = 5.18 \times 4 + 2.06 \times 5 - 5 + 1$$

now multiplication will be solved

$$= (5.18 \times 4) + (2.06 \times 5) - 5 + 1 = 20.72 + 10.3 - 5 + 1$$

now addition will be solved

$$= 32.02 - 5 = 27.02$$

26 is closest from the options.

75. Now, according to the question,

$$34 - 66 \div 6 + 18 \times 8 \Rightarrow 34 - 11 + 144 \Rightarrow 167$$

$$76. 27.92 \times 4 + 3.96 \times 5 - 18 \div 2 + 1$$

$$= 27.92 \times 4 + 3.96 \times 5 - 9 + 1 = 111.68 + 19.80 - 9 + 1$$

$$= 111.68 + 19.80 + 1 - 9 = 132.48 - 9 = 123.48 \sim 124$$

$$77. (6 - 3) \div [(9 - 6) \div \{(6 - 4) \div (2 + \frac{8}{13})\}]$$

$$\Rightarrow 3 \div [(3) \div \{(2) \div (\frac{26+8}{13})\}] \Rightarrow 3 \div [(3) \div \{2 \div \frac{34}{13}\}]$$

$$\Rightarrow 3 \div [3 \times \frac{17}{13}] \Rightarrow 3 \times [\frac{13}{3 \times 17}] \Rightarrow \frac{13}{17}$$

$$78. [(12 \div 4) \times \{\frac{12}{3} + \frac{5}{3} \times (7 - 4)\}] \Rightarrow$$

$$[(12 \div 4) \times \{\frac{12}{3} + \frac{5}{3} \times (3)\}] \Rightarrow 27$$

$$79. 3 + 3 \times [(11 - 2) \div 3] - 2 \times 3$$

$$= 3 + 3 \times \{[9] \div 3\} - 2 \times 3 = 3 + 3 \times [3] - 6 = 3 + 9 - 6 = 12 - 6 = 6$$

$$80. 23.96 + 24.96 + 23.16 - 18.89 \times 3.04 + 36.13 \div 6.1$$

$$= 23.96 + 24.96 + 23.16 - 18.89 \times 3.04 + 5.92$$

$$= 23.96 + 24.96 + 23.16 - 57.425 + 5.92$$

$$= (23.96 + 24.96 + 23.16 + 5.92) - 57.425$$

$$= 78 - 57.425 = 20.575 \sim 21$$

Thus, the required closest value is 21.

$$81. 26.52 \times 3.89 - 7.79 \times 2 + 27.39$$

$$\Rightarrow 103.16 - 7.79 \times 2 + 27.39 \Rightarrow 103.16 + 27.39 - 15.58$$

$$\Rightarrow 130.55 - 15.58 \Rightarrow 114.97$$

Thus, the closest approximate value to 114.97 is 119.

$$82. 11 - \{7 - 56 \div (2 \times 3 + 1)\}$$

$$= 11 - \{7 - 56 \div (6 + 1)\} = 11 - \{7 - 56 \div 7\}$$

$$= 11 - \{7 - 8\} = 11 - \{-1\} = 11 + 1$$

$$= 12$$

$$83. 40 - [3 - \{4 - (6 - \overline{6 - 4})\}]$$

$$\Rightarrow 40 - [3 - \{4 - (6 - 2)\}] \Rightarrow 40 - [3 - \{4 - 4\}] \Rightarrow 40 - 3 = 37$$

84. For the given expression, comparing it with the formula of  $(a - b)^3$ ,

$$\Rightarrow (3.7)^3 - 3 \times (3.7)^2 \times (0.7) + 3(3.7) \times (0.7)^2 - (0.7)^3$$

$$\Rightarrow a = 3.7 \text{ and } b = 0.7$$

$$\Rightarrow (3.7)^3 - 3 \times (3.7)^2 \times (0.7) + 3(3.7) \times (0.7)^2 - (0.7)^3 = (3.7 - 0.7)^3$$

$$\Rightarrow (3.7 - 0.7)^3 = 3^3 = 27$$

**85.** As,  $\sqrt{360} = 18.97$  and  $\sqrt{170} = 13.03$

Here, we have

$$(\sqrt{360} + 12 \div 6 \times 3 - \sqrt{170}) \div 2, (18.97 + 12 \div 6 \times 3 - 13.03) \div 2$$

$$(18.97 + 2 \times 3 - 13.03) \div 2, (18.97 + 6 - 13.03) \div 2$$

$$(24.97 - 13.03) \div 2 \Rightarrow 11.94 \div 2 = 5.97 \approx 6$$

**86.**  $-48 \div [4 \times (6 - 5 + 1)] \div 24$

using the BODMAS rule,

$$= -48 \div [4 \times (6 - 5 + 1)] \div 24 = -48 \div [4 \times 2] \div 24 = -48 \div 8 \div 24$$

$$= -6 \div 24 = -\frac{1}{4}$$

**87.**  $\{[(54.36 \times 0.4) + 0.256] \div \sqrt{121}\}$

$$= \{[(54.36 \times 0.4) + 0.256] \div 11\} = \{[21.744 + 0.256] \div 11\}$$

$$= [22 \div 11] = 2$$

**88.** Here, we have  $\frac{[(0.68)^2 + (0.32)^2 + 16 \times 0.0136]}{[(0.68)^3 - (0.32)^3] \div (0.3)^2}$

Now, multiply by  $(0.68 - 0.32)$  in both numerator and denominator respectively

$$\Rightarrow \frac{(0.68 - 0.32)[(0.68)^2 + (0.32)^2 + 0.2176]}{(0.68 - 0.32)[(0.68)^3 - (0.32)^3] \div (0.3)^2}$$

Now, the numerator of this equation is in the form of

$$(a - b)(a^2 + b^2 + ab) = (a^3 - b^3)$$

Where  $a = 0.68$  and  $b = 0.32$

$$\Rightarrow \frac{[(0.68)^3 - (0.32)^3]}{(0.68 - 0.32)[(0.68)^3 - (0.32)^3] \div (0.3)^2} = \frac{1}{0.36 \div 0.09} = 1/4$$

**89.** On solving L.H.S

$$0.045 + 0.154 - 0.09 + 1.5 - (0.3 \times 0.8), 0.199 - 1.59 - (0.24), -1.631$$

$$\text{R.H.S, } x - 0.231$$

$$\text{L.H.S} = \text{R.H.S, } -1.631 = x - 0.231, X = -0.231 + 1.631 = 1.400$$

**90.**  $\{[(324 \div 9) \div 4] \times 25 + 186\}, \{[36 \div 4] \times 25 + 186\}$

$$[9 \times 25 + 186], 225 + 186, 411$$

**91.**  $143 - 144 \div 16 \times 3 - 1$

using the BODMAS rule,

$$= 143 - 144 \div 16 \times 3 - 1 = 143 - 9 \times 3 - 1 = 143 - 27 - 1$$

$$= 116 - 1 = 115$$

**92.**  $(\sqrt{142} + 52 \div 26 \times 5 - \sqrt{80}) \times 2 \Rightarrow (11.9 + 52 \div 26 \times 5 - 8.9) \times 2$

$$\Rightarrow (11.9 + 2 \times 5 - 8.9) \times 2 \Rightarrow (11.9 + 10 - 8.9) \times 2$$

$$\Rightarrow (21.9 - 8.9) \times 2 \Rightarrow 13 \times 2 \Rightarrow 26$$

**93.**  $5 + \frac{5 \times 5}{5} - 5 \Rightarrow 5 + \frac{25}{5} - 5$

$$\Rightarrow 5 + 5 - 5 = 5$$

**94.**  $2.06 - 3.16 + 4.59 - 1.79 \Rightarrow 2.06 + 4.59 - 3.16 - 1.79 \Rightarrow 6.65 - 4.95 \Rightarrow 1.70$

**95.**  $36 \div (8 \times 3) - [3 \div \{4 \times \{3 \times 4 \div (5 - 9) + 6\}\}] \Rightarrow 36 \div 24 - [3 \div \{4 \times \{3 \times 4 \div (-4) + 6\}\}] \Rightarrow 36 \div 24 - [3 \div \{4 \times \{-3 + 6\}\}]$

$$\Rightarrow 36 \div 24 - (1/4) \Rightarrow 5/4 \Rightarrow 1.25$$

Hence, 1.25 lies between 1 and 1.3

**96.**  $\frac{2}{3} + \frac{4}{9} \div \left(\frac{7}{2} - \frac{5}{6}\right) \Rightarrow \frac{2}{3} + \frac{4}{9} \div \left(\frac{21 - 5}{6}\right) \Rightarrow \frac{2}{3} + \frac{4}{9} \times \frac{6}{16}$

$$\Rightarrow \frac{5}{6}$$

**97.**  $17.821 + 178.21 - ? = 169.93 \Rightarrow 18 + 178 - ? = 170 \Rightarrow 26 = ?$

**98.**  $\Rightarrow (4 + 2) \text{ of } 9 - 6 \times 2 + \frac{5}{5} = 6 \text{ of } 9 - 6 \times 2 + \frac{5}{5}$

$$\Rightarrow 54 - 6 \times 2 + \frac{5}{5} = 54 - 12 + 1 = 43$$

**99.**  $49 - [35 + \{12 \div 3 \text{ of } (6 + \sqrt{121})\}] \Rightarrow 49 - [35 + \{12 \div 3 \text{ of } (6 + 11)\}] \Rightarrow 49 - [35 + \{12 \div 3 \text{ of } (6 + 5)\}] \Rightarrow 49 - [35 + \{12 \div 3\}] \Rightarrow 49 - [35 + 4]$

$$\Rightarrow 10$$

**100.**  $\frac{\left(\frac{11}{12} \times 1\frac{3}{13} \div \frac{2}{4}\right) \div \left(\frac{7}{10} \div \left(\frac{3}{4} \times 1\frac{2}{5}\right)\right)}{\frac{1}{4} \times \frac{2}{3} \times 2\frac{2}{5}}$

$$\frac{\left(\frac{143}{12} \times \frac{16}{13} \times \frac{4}{11}\right) \div \left(\frac{7}{10} \div \frac{21}{20}\right)}{\frac{1}{4} \times \frac{2}{3} \times 2\frac{2}{5}}$$

$$\frac{\left(\frac{16}{3}\right) \div \left(\frac{2}{3}\right)}{\frac{1}{4} \times \frac{2}{3} \times 2\frac{2}{5}}$$

$$\frac{8}{\frac{1}{4} \times \frac{2}{3} \times \frac{12}{5}}$$

$$\Rightarrow 20$$

**101.**  $131/3 \div [35 + 3 \times 24/4 + (42 \div 7 - 16/3)]$

$$\Rightarrow 131/3 \div [35 + 3 \times 6 + (6 - 16/3)] \Rightarrow 131/3 \div [35 + 18 + (18 - 16)/3]$$

$$\Rightarrow 131/3 \div [53 + 2/3] \Rightarrow 131/3 \div [159 + 2]/3 \Rightarrow 131/3 \div 161/3$$

$$\Rightarrow 131 \div 161 = 131/161$$

**102.**  $(15 \div 3) - \{[(19 - 1) \div 2] - \{5 \times 20 - (7 \times 9 - (-2))\}\}$

$$\Rightarrow (5) - \{[(18) \div 2] - \{100 - (63 + 2)\}\} \Rightarrow (5) - \{[9] - \{100 - 65\}\}$$

$$\Rightarrow 31$$

**103.**

$$\frac{3}{4} \times 2\frac{2}{3} \div \frac{5}{9} \text{ of } 1\frac{1}{5} - \frac{3}{5} \text{ of } \left(\frac{2}{3} \div \frac{2}{3} \text{ of } \frac{3}{2}\right) + \frac{4}{5} \times 1\frac{1}{9} \div \frac{8}{15} - \frac{2}{3} \times \frac{2}{3}$$

$$\Rightarrow \frac{3}{4} \times \frac{8}{3} \div \frac{5}{9} \text{ of } \frac{6}{5} - \frac{2}{5} + \frac{4}{5} \times \frac{10}{9} \div \frac{8}{15} - \frac{2}{3}$$

$$\Rightarrow \frac{3}{4} \times \frac{8}{3} \div \frac{2}{3} - \frac{2}{5} + \frac{4}{5} \times \frac{10}{9} \div \frac{8}{15} - \frac{2}{3}$$

$$\Rightarrow \frac{3}{4} \times 4 - \frac{2}{5} + \frac{4}{5} \times \frac{25}{12} - \frac{2}{3} \Rightarrow 3 - \frac{2}{5} + 1 \Rightarrow \frac{18}{5} = 3\frac{3}{5}$$

**104.**  $[10 - \{(3/4) + \{9/2 - (1/4 + 1/84)\}]\} \div 4$

$$\Rightarrow [10 - \{(3/4) + \{9/2 - (21 + 1)/84\}]\} \div 4$$

$$\Rightarrow [10 - \{(3/4) + \{9/2 - 11/42\}]\} \div 4 \Rightarrow [10 - \{(3/4) + 89/21\}]\} \div 4$$

$$\Rightarrow [10 - \{(63 + 356)/(21 \times 4)\}]\} \div 4 \Rightarrow [10 - (419/84)] \div 4$$

$$\Rightarrow [(840 - 419)/84] \div 4 \Rightarrow \frac{1}{336}$$

**105.**  $\frac{\frac{17}{2} \div \frac{15}{2} \times \frac{13}{2}}{\frac{17}{2} \div \left(\frac{15}{2} \times \frac{13}{2}\right)} \div \frac{169}{30} \Rightarrow \frac{17 \times 13}{15 \times 2} \times \frac{13 \times 15}{17 \times 2} \div \frac{169}{30} = 7\frac{1}{2}$

**106.**  $10 - 18 \div 3 \times 3 + 27 \div 32 \Rightarrow 10 - 6 \times 3 + 27 \div 9 \Rightarrow 10 - 18 + 3 \Rightarrow 13 - 18 = -5$

**107.**  $13/6 \times \{1\frac{19}{26} + 15/13 \times (5/7 \div 25/14)\}$

$$13/6 \times \{1\frac{19}{26} + 15/13 \times (5/7 \times 14/25)\}$$

$$\Rightarrow 13/6 \times \{45/26 + 15/13 \times 2/5\} \Rightarrow 13/6 \times \{45/26 + 30/65\}$$

$$\Rightarrow 13/6 \times \{(225 + 60)/(13 \times 5 \times 2)\} \text{ ----(Taking LCM of 26 and 65 = } 13 \times 5 \times 2)$$

$$\Rightarrow 13/6 \times 285/130 \Rightarrow 19/4$$

**108.**  $5/4 \times \left(\frac{23/4}{2K/7}\right) \div 23/8 - 15/4 = 13/4 \Rightarrow \frac{15}{4} \times \left(\frac{23}{4} \times \frac{7}{2k}\right) \div \frac{23}{8} - \frac{15}{4} = \frac{13}{4}$

$$\frac{5}{4} \times \frac{161}{8k} \times \frac{8}{23} - \frac{15}{4} = \frac{13}{4} \Rightarrow \frac{35}{4k} = \frac{15}{4} + \frac{13}{4} \Rightarrow k = \frac{35}{28} = \frac{5}{4}$$

Now, putting the value of k in  $(k + 1)/(k - 1)$

$$\left(\frac{5}{4} + 1\right) / \left(\frac{5}{4} - 1\right) = \frac{9}{4} / \frac{1}{4} = \frac{9}{4} \times 4 = 9$$

**109.**  $\left(1\frac{1}{3} \times 1\frac{4}{5} \div \frac{3}{5}\right) \times \frac{3}{8} - \frac{2}{3} \Rightarrow \left(\frac{4}{3} \times \frac{9}{5} \times \frac{5}{3}\right) \times \frac{3}{8} - \frac{2}{3} \Rightarrow 4 \times \frac{3}{8} - \frac{2}{3} \Rightarrow 5/6$

**110.**  $84 \div 32 \times 8 - 15 \div 8 \times (19 - 35) \Rightarrow 84 \div 32 \times 8 - 15 \div 8 \times (-16) \Rightarrow 21/8 \times 8 - (15/8) \times (-16) \Rightarrow 51$

**111.**  $72 \div 4 \times \{8 \times 4 - (14 - 19)\} \Rightarrow 72 \div 4 \times \{8 \times 4 - (-5)\} \Rightarrow 72 \div 4 \times \{32 + 5\} \Rightarrow 72 \div 4 \times 37 \Rightarrow 666$

**112.**  $\left[2\frac{7}{8} - \left\{3 - \left(1\frac{1}{4} - \frac{5}{8}\right)\right\}\right] + P \times \frac{1}{8} = 0$

$$\Rightarrow \left[2\frac{7}{8} - \left\{3 - \frac{5}{8}\right\}\right] + P \times \frac{1}{8} = 0$$

$$\Rightarrow \left[ \frac{23}{8} - \frac{19}{8} \right] + P \times \frac{1}{8} = 0$$

$$\Rightarrow \frac{1}{2} + P \times \frac{1}{8} = 0$$

$$\Rightarrow \frac{1}{2} + \frac{P}{8} = 0 \Rightarrow P = -4$$

$$113. 7\frac{3}{5} \times 4\frac{1}{2} - K = 26\frac{3}{4} \Rightarrow \frac{38}{5} \times \frac{9}{2} - K = \frac{107}{4}$$

$$\frac{342}{10} - \frac{107}{4} = K \Rightarrow K = \frac{684 - 535}{20} \Rightarrow K = \frac{149}{20} \Rightarrow K = 7\frac{9}{20}$$

$$114. \Rightarrow \frac{27}{5} \times \frac{15}{81} \div \left\{ \frac{14}{77} \times \frac{86}{72} \times \frac{99}{43} \right\} \Rightarrow \frac{27}{5} \times \frac{15}{81} \div \frac{1}{2} \Rightarrow$$

$$\frac{27}{5} \times \frac{15}{81} \times 2 = 2$$

$$115. (ab) \div c$$

$$\Rightarrow \frac{17}{99} \times \frac{13}{47} \div \frac{34}{33} \Rightarrow \frac{17}{99} \times \frac{13}{47} \times \frac{33}{34} \Rightarrow \frac{1}{3} \times \frac{13}{47} \times \frac{1}{2} = \frac{13}{282}$$

$$116. 30 \div 10 \times 4 - 6 + 4 \Rightarrow 3 \times 4 - 6 + 4 \Rightarrow 12 - 6 + 4 \Rightarrow 16 - 6 \Rightarrow 10$$

Hence, "option 2" is the correct answer.

$$117. 3.5 \times 0.5 \times (4.4 - 0.625 \div 1.5625)$$

$$\Rightarrow 3.5 \times 0.5 \times (4.4 - 0.4) \Rightarrow 3.5 \times 0.5 \times (4) \Rightarrow 3.5 \times 2 = 7$$

$$118. 5 - 10 \div 5 \times 2 - [12 \div 6 \text{ of } \{5 \times 6 \div (6 - 9) + 13\} \times (8 \div (4 \times 3))]$$

$$\Rightarrow 5 - 10 \div 5 \times 2 - [12 \div 6 \text{ of } \{5 \times 6 \div (6 - 9) + 13\} \times (8 \div 12)]$$

$$\Rightarrow 5 - 10 \div 5 \times 2 - [12 \div 6 \text{ of } \{5 \times 6 \div (-3) + 13\} \times 2/3]$$

$$\Rightarrow 5 - 10 \div 5 \times 2 - [12 \div 6 \text{ of } \{5 \times (-2) + 13\} \times 2/3]$$

$$\Rightarrow 5 - 10 \div 5 \times 2 - 4/9 \Rightarrow 5 - 2 \times 2 - 4/9 \Rightarrow 5 - 4 - 4/9$$

$$\Rightarrow 1 - 4/9 = 5/9$$

$$119. \left[ 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{5}}} \right] \div (1 + 6/11) = x/2 \Rightarrow \left[ 1 + \frac{1}{1 + \frac{1}{5}} \right] \div (1 + 6/11) =$$

$$x/2$$

$$\Rightarrow \left[ 1 + \frac{1}{1 + \frac{1}{5}} \right] \div \frac{17}{11} = x/2 \Rightarrow \frac{17}{11} \div \frac{17}{11} = x/2$$

$$\Rightarrow x = 1 \times 2 = 2.$$

$$120. 32\% \text{ of } 22.5 - \frac{2}{3} \times \sqrt[3]{512} \times \sqrt{81}$$

$$\Rightarrow (0.32 \text{ of } 22.5) - \frac{2}{3} \times \sqrt[3]{512} \times \sqrt{81}$$

$$\Rightarrow 7.2 - \frac{2}{3} \times 8 \times 9 \Rightarrow 7.2 - 48 \Rightarrow -40.8$$

$$121. \frac{9}{15} \times \frac{45}{81} \times \left\{ \frac{49}{6} \times \left( \frac{16}{7} - 2 \right) \right\} \times \frac{24}{5} \div \frac{16}{15}$$

$$\Rightarrow \frac{9}{15} \times \frac{45}{81} \times \left\{ \frac{49}{6} \times \left( \frac{16-14}{7} \right) \right\} \times \frac{24}{5} \div \frac{16}{15}$$

$$\Rightarrow \frac{9}{15} \times \frac{45}{81} \times \left\{ \frac{49}{6} \times \frac{2}{7} \right\} \times \frac{24}{5} \div \frac{16}{15}$$

$$\Rightarrow \frac{9}{15} \times \frac{45}{81} \times \frac{7}{3} \times \frac{24}{5} \div \frac{16}{15} \Rightarrow \frac{9}{15} \times \frac{45}{81} \times \frac{7}{3} \times \frac{24}{5} \times \frac{15}{16}$$

$$\Rightarrow \frac{1}{3} \times \frac{21}{2} \Rightarrow \frac{7}{2}$$

$$122. 27 \times 3 \times 896 \div \sqrt{3136} = y + 640 \Rightarrow 27 \times 3 \times 896 \div 56 = y +$$

$$640 \Rightarrow 27 \times 3 \times 16 = y + 640 \Rightarrow 1296 = y + 640 \Rightarrow y = 1296 - 640$$

$$\Rightarrow y = 656$$

$$123. (162 \div 9) \div 3 - (343 \div 49) \div 7$$

$$\Rightarrow 18 \div 3 - 7 \div 7 \Rightarrow 6 - 1 \Rightarrow 5$$

$$124. \text{ Let the number be } Q.$$

$$29.5\% \text{ of } Q = 0.59 \Rightarrow 0.295 \text{ of } Q = 0.59$$

$$\Rightarrow 0.295 \times Q = 0.59 \Rightarrow Q = 0.59/0.295 \Rightarrow Q = 2$$

$$125. 65 - [40 - (60 \div 5 - (18 - 24 \div 4) \div 6)]$$

$$\Rightarrow 65 - [40 - (60 \div 5 - (18 - 6) \div 6)]$$

$$\Rightarrow 65 - [40 - (60 \div 5 - 12 \div 6)] \Rightarrow 65 - [40 - (12 - 2)] \Rightarrow 35$$

$$126. 18 + 48 \div 12 \times (32 \div 4) - 8 \Rightarrow 18 + 48 \div 12 \times 8 - 8 \Rightarrow 18 +$$

$$4 \times 8 - 8 \Rightarrow 266$$

$$127. 30 \div (40 \div 4 \times 10 \div 5) \times 6 - 4 \Rightarrow 30 \div (10 \times 2) \times 6 - 4 \Rightarrow 30 \div$$

$$20 \times 6 - 4 \Rightarrow 30/20 \times 6 - 4 \Rightarrow 3/2 \times 6 - 4 = 5$$

$$128. [(7 \times 9) + (3 \times 8) + 3] \div [(9 \times 4) + (72 \div 8)]$$

$$\Rightarrow [(7 \times 9) + (3 \times 8) + 3] \div [(9 \times 4) + 9]$$

$$\Rightarrow [(7 \times 9) + (3 \times 8) + 3] \div (36 + 9) \Rightarrow [(7 \times 9) + (3 \times 8) + 3] \div 45$$

$$\Rightarrow [63 + (3 \times 8) + 3] \div 45 \Rightarrow [63 + (24 + 3)] \div 45$$

$$\Rightarrow (63 + 27) \div 45 \Rightarrow 90 \div 45 \Rightarrow 2$$

$$129. \frac{12 - [(3-5) \times 4] \div 8 - 8 + [6 \div (12 \times 2)]}{9 \times 15 \div (12 \times 10) - [12 \div (6 \times 2)]} \Rightarrow \frac{12 - [(3-5) \times 4] \div 8 - 8 + [6 \div 24]}{9 \times 15 \div (12 \times 10) - [12 \div 12]}$$

$$\Rightarrow \frac{12 - [(3-5) \times 4] \div 8 - 8 + 1/4}{9 \times 15 \div (12 \times 10) - 1} \Rightarrow \frac{12 - [-2 \times 4] \div 8 - 8 + 1/4}{9 \times 15 \div 120 - 1}$$

$$\Rightarrow \frac{12 - [-8] \div 8 - 8 + 1/4}{9 \times 1/8 - 1} \Rightarrow \frac{12 - [-1] - 8 + 1/4}{9/8 - 1}$$

$$\Rightarrow \frac{13 - 8 + 1/4}{9/8 - 1} \Rightarrow \frac{5 + 1/4}{9/8 - 1} \Rightarrow \frac{(20+1)/4}{(9-8)/8}$$

$$\Rightarrow \frac{21/4}{1/8} \Rightarrow 21/4 \times 8/1 \Rightarrow (21 \times 2) \Rightarrow 42$$

$$130. \frac{12 - 6 \div 2 + 4}{3^2 \times 3 - 7 + 6}$$

$$\Rightarrow \frac{12 - 3 + 4}{27 - 7 + 6} = \frac{13}{26} = \frac{1}{2}$$

$$131. 56 \div 14 \times 22 - 12 \times 6 \div 3 + 10$$

$$\Rightarrow 4 \times 22 - 12 \times 2 + 10 \Rightarrow 4 \times 4 - 12 \times 2 + 10 \Rightarrow 16 - 24 + 10 \Rightarrow 2$$

$$132. 1 - \frac{(4 \div 5 - 1 \times 3 + 2) \times 8}{3^2 \times 8 - 4 \times 2} \Rightarrow 1 - \frac{(0.8 - 1 \times 3 + 2) \times 8}{3^2 \times 8 - 4 \times 2}$$

$$\Rightarrow 1 - \frac{(0.8 - 3 + 2) \times 8}{9 \times 8 - 4 \times 2} \Rightarrow 1 - \frac{(-0.2) \times 8}{72 - 8}$$

$$\Rightarrow 1 - \frac{-1.6}{64} \Rightarrow 1 + \frac{1.6}{64} \Rightarrow 1 + 0.025$$

$$\Rightarrow 1.025 \Rightarrow \frac{41}{40}$$

$$133. 72 - 4(40 + 24 \div 8 \times 6 - 4 \times 4) + 20$$

$$\Rightarrow 72 - 4(40 + 3 \times 6 - 4 \times 4) + 20 \Rightarrow 72 - 4(40 + 18 - 16) + 20$$

$$\Rightarrow 72 - 4 \times 42 + 20 \Rightarrow 72 - 168 + 20 \Rightarrow (-76)$$

$$134. 95 \div 15 - 34 \div \{18 - 4 \div (3 \times 12) \times 9\} \times 2$$

$$\Rightarrow 95 \div 15 - 34 \div \{18 - 4 \div 36 \times 9\} \times 2$$

$$\Rightarrow 95 \div 15 - 34 \div \{18 - 1/9 \times 9\} \times 2$$

$$\Rightarrow 95 \div 15 - 34 \div \{18 - 1\} \times 2 \Rightarrow 95 \div 15 - 34 \div 17 \times 2$$

$$\Rightarrow 19/3 - 2 \times 2 \Rightarrow 19/3 - 4 \Rightarrow (19 - 12)/3 \Rightarrow 7/3 = 2\frac{1}{3}$$

$$135. \Rightarrow 56 \div [(1/3)\{15 + 12 - (9 + 6 - 12)\}] \Rightarrow 56 \div [(1/3)\{15 + 12 - (15 - 12)\}]$$

$$\Rightarrow 56 \div [(1/3)\{15 + 12 - 3\}] \Rightarrow 56 \div [(1/3)\{27 - 3\}]$$

$$\Rightarrow 56 \div [(1/3)(24)] \Rightarrow 56 \div 8 \Rightarrow 7.$$

$$136. 22 - [23 - \{24 - (27 - (-5))\}]$$

$$\Rightarrow 22 - [23 - \{24 - (27 + 5)\}] \Rightarrow 22 - [23 - \{24 - 32\}]$$

$$\Rightarrow 22 - [23 - (-8)] \Rightarrow 22 - [23 + 8] \Rightarrow 22 - 31$$

$$\therefore -9$$

$$137. (136 \div 17) + (17 \times 13) - (103 - 85) \times (62 + 145) \div 23,$$

$$\Rightarrow 8 + 221 - 18 \times 207 \div 23 \Rightarrow 8 + 221 - 18 \times 9 \Rightarrow 8 + 221 - 162 \Rightarrow$$

$$67$$

$$138. -15 - (-18 - 35 \div 5) \Rightarrow -15 - (-18 - 7) \Rightarrow -15 - (-25) \Rightarrow -15 + 25 = 10$$

$$139. 66 \div [67 - \{43 - (17 - 117 \div 9 \times 4)\}] = ?$$

$$\Rightarrow 66 \div [67 - \{43 - (17 - 13 \times 4)\}] = ? \Rightarrow 66 \div [67 - \{43 - (17 - 52)\}] = ?$$

$$\Rightarrow 66 \div [67 - \{43 - (-35)\}] = ? \Rightarrow 66 \div [67 - \{43 + 35\}] = ?$$

$$\Rightarrow 66 \div [67 - 78] = ? \Rightarrow 66 \div -11 = ? \Rightarrow -6 = ?$$

$$140. 119 \div [22 - \{90 \div (23 - 105 \div (7 \times 3))\}]$$

$$\Rightarrow 119 \div [22 - \{90 \div (23 - 105 \div 21)\}] \Rightarrow 119 \div [22 - \{90 \div (23 - 5)\}]$$

$$\Rightarrow 119 \div [22 - \{90 \div 18\}] \Rightarrow 119 \div [22 - 5] \Rightarrow 119 \div 17 = 7$$

$$141. 70 \div 5 \times (10 - 8 \div 2) \div 3 \Rightarrow 14 \times (10 - 4) \div 3 \therefore 14 \times 2 = 28$$

$$142. 63 - (-3)(-2 - 8 - 4) \div [3 \{5 + (-2)(-1)\}]$$

$$\Rightarrow 63 - (-3)(-2 - 8 - 4) \div [3 \{5 + 2\}] \Rightarrow 63 - (42) \div 21 = 61$$

$$143. 162 \div \left[ 51 - \left\{ 29 - \left( 9 - \overline{6+7} \right) \right\} \right]$$

$$\Rightarrow 162 \div [51 - \{29 - (9 - 13)\}]$$

$$\Rightarrow 162 \div [51 - \{29 - (-4)\}]$$

$$\Rightarrow 162 \div [51 - \{29 + 4\}]$$

$$\Rightarrow 162 \div [51 - \{33\}]$$

$$\Rightarrow 162 \div 18 \Rightarrow 9$$

$$144. 119 \div [22 - \{90 \div (23 - 105 \div \overline{7 \times 3})\}]$$

$$\Rightarrow 119 \div [22 - \{90 \div (23 - 105 \div 21)\}] \Rightarrow 119 \div [22 - \{90 \div (23 - 5)\}]$$

$$\Rightarrow 119 \div [22 - \{90 \div 18\}] \Rightarrow 119 \div [22 - \{5\}] \Rightarrow 119 \div [17] \Rightarrow 7$$

$$145. 15 \times 3 - 9 \times (5^2 \div 5) \div 5 \div (1 \div 3) + 10$$

$$\Rightarrow 15 \times 3 - 9 \times 5 \div 5 \div (1/3) + 10 \Rightarrow 15 \times 3 - 9 \times 1 \times 3 + 10$$

$$\Rightarrow 45 - 27 + 10 \Rightarrow 28$$

$$146. p = 36 - 2(20 + 12 \div 4 \times 3 - 2 \times 2) + 10$$

$$\Rightarrow p = 36 - 2(20 + 3 \times 3 - 2 \times 2) + 10$$

$$\Rightarrow p = 36 - 2(20 + 9 - 4) + 10 \Rightarrow p = 36 - 2 \times 25 + 10$$

$$\Rightarrow p = 36 - 50 + 10 \Rightarrow p = -4 \Rightarrow 2p = -8$$

$$147. 8 \text{ kg } 25 \text{ g} = 8 \times 1000 + 25 = 8025 \text{ g} \Rightarrow 8025 \text{ g} \times 25 = 200625 \text{ g} = 200.625 \text{ kg}$$

$$148. 22 - [23 - \{24 - (27 - 29 - 30)\}]$$

$$\Rightarrow 22 - [23 - \{24 - (27 - (-1))\}] \Rightarrow 22 - [23 - \{24 - 28\}]$$

$$\Rightarrow 22 - [23 - (-4)] \Rightarrow 22 - 27 \Rightarrow -5$$

$$149. 75 \div [35 - \{63 - (79 - 54 \div 9 \times 6)\}]$$

$$\Rightarrow 75 \div [35 - \{63 - (79 - 6 \times 6)\}] \Rightarrow 75 \div [35 - \{63 - (79 - 36)\}]$$

$$\Rightarrow 75 \div [35 - \{63 - 43\}] \Rightarrow 75 \div [35 - 20] \Rightarrow 75 \div 15 = 5$$

$$150. \Rightarrow [40 - (90 \div 5 \times 8 \div 2 \div 3)] \Rightarrow [40 - (90 \times \frac{1}{5} \times 8 \times \frac{1}{2} \times \frac{1}{3})]$$

$$\Rightarrow [40 - 24] \Rightarrow 16$$

$$151. (-18) [36 \div \{7 - (-2)\}] \div [(-4)\{19 - (-3) \times (-5)\}]$$

$$\Rightarrow (-18) [36 \div 9] \div [(-4)\{19 - 15\}] \Rightarrow (-18) \times 4 \div [(-4) \times 4]$$

$$\Rightarrow (-72) \div (-16) \Rightarrow 4.5$$

$$152. (-12)[11 + \{7 \times (-3)\}] \div [4 \{13 - (-3) \times (-6)\}]$$

$$\Rightarrow (-12)[11 + \{-21\}] \div [4 \{13 - 18\}] \Rightarrow (-12)[-10] \div [4 \times (-5)]$$

$$\Rightarrow 120 \div (-20) \Rightarrow -6$$

$$153. 80 \div [48 - \{56 - (60 - 36 \div 12 \times 4)\}]$$

$$\Rightarrow 80 \div [48 - \{56 - (60 - 3 \times 4)\}] \Rightarrow 80 \div [48 - \{56 - (60 - 12)\}]$$

$$\Rightarrow 80 \div [48 - \{56 - 48\}] \Rightarrow 80 \div [48 - 8] \Rightarrow 80 \div 40 \Rightarrow 2$$

$$154. \{52 - (9 - 2)\} \div [3 \times \{1 + (-2) \times (-2)\}]$$

$$\Rightarrow \{52 - 7\} \div [3 \times \{1 + 4\}] \Rightarrow 45 \div [3 \times 5] \Rightarrow 45 \div 15 \Rightarrow 3$$

$$155. \Rightarrow \frac{3}{12} \text{ of } \left(\frac{\frac{2}{5} + \frac{4}{15}}{\frac{3}{5} - \frac{2}{5}}\right) = \frac{3}{12} \text{ of } \frac{10}{\frac{1}{5}}$$

$$\Rightarrow \frac{3}{12} \times \frac{10}{15} \times \frac{5}{1} = \frac{5}{6}$$

$$156. 4 + 3 \times 4 + 3 \times 4^2 + 3 \times 4^3 + 3 \times 4^4 + 3 \times 4^5$$

$$\Rightarrow 4(1 + 3) + 3 \times 4^2 + 3 \times 4^3 + 3 \times 4^4 + 3 \times 4^5$$

$$\Rightarrow 4^2 + 3 \times 4^2 + 3 \times 4^3 + 3 \times 4^4 + 3 \times 4^5$$

$$\Rightarrow 4^2(1 + 3) + 3 \times 4^3 + 3 \times 4^4 + 3 \times 4^5$$

$$\Rightarrow 4^5(1 + 3)$$

$$\Rightarrow 4^6$$

$$157. 138 \div [35 - \{53 - (89 - 72 \div 9 \times 6)\}]$$

$$138 \div [35 - \{53 - (89 - 8 \times 6)\}], 138 \div [35 - \{53 - (89 - 48)\}]$$

$$138 \div [35 - \{53 - 41\}], 138 \div [35 - 12], 138 \div 23 = 6$$

$$158. \text{ If } 551 \div 29 = 19, \text{ then, } 55 \div 19 = 29, 55/19 = 29$$

$$5.51/(0.0019 \times 10^2) = 29, 5.51/(0.0019) = 2900$$

$$159. 7580 - X = 3440 \quad X = 4140$$

$$160. x + 5.42 - 3.56 = 10 \Rightarrow x + 1.86 = 10 \Rightarrow x = 10 - 1.86 \Rightarrow x = 8.14$$

$$161. \Rightarrow \left(\frac{2}{3} \times \frac{1}{6}\right) + \left(\frac{2}{3} \times \frac{7}{2}\right) - \left(\frac{13}{4} \times \frac{4}{3}\right) \Rightarrow \frac{1}{9} + \frac{7}{3} - \frac{13}{3}$$

$$\Rightarrow (1 + 21 - 39)/9 \Rightarrow -17/9$$

$$162. \Rightarrow 11/8 \times 4/11 \div 3/16 - 3/8 \Rightarrow 1/2 \div 3/16 - 3/8 \Rightarrow 1/2 \times 16/3 - 3/8$$

$$\Rightarrow 8/3 - 3/8$$

$$\Rightarrow (64 - 9)/24 \Rightarrow 55/24 \Rightarrow 2\frac{7}{24}$$

$$163. \left(\frac{3}{11} \times \frac{33}{6}\right) - \left(\frac{9}{4} \times \frac{12}{3}\right) + \left(\frac{5}{11} \times \frac{22}{10}\right)$$

$$\Rightarrow 3/2 - 9 + 1 \Rightarrow (3 - 18 + 2)/2 \Rightarrow (-13)/2$$

$$164. \Rightarrow \left(\frac{3}{2} \times \frac{1}{6}\right) + \left(\frac{5}{3} \times \frac{7}{2}\right) - \left(\frac{13}{4} \times \frac{4}{3}\right)$$

$$\Rightarrow 1/4 + 35/6 - 13/3 \Rightarrow (3 + 70 - 52)/12 \Rightarrow 21/12$$

$$165. |21 \div (-7) + 12| \times 21 + 5 \Rightarrow |-3 + 12| \times 21 + 5 \Rightarrow |9| \times 21 + 5$$

$$\Rightarrow 9 \times 21 + 5 \Rightarrow 189 + 5 \Rightarrow 194$$

$$166. 40 - (7 \times 3 + 24 \div 8 \times 3 - 4 \times 2) + 12$$

$$\Rightarrow 40 - (7 \times 3 + 3 \times 3 - 4 \times 2) + 12 \Rightarrow 40 - (21 + 9 - 8) + 12$$

$$\Rightarrow 40 - 22 + 12 \Rightarrow 52 - 22 \Rightarrow 30$$

$$167. 5.032 + 150.03 + 40.00 - 30.50 \Rightarrow 195.062 - 30.50 \text{ Required answer } 164.562$$

$$168. 4^2 \times \{(2 + 3) - 11\} \Rightarrow 4^2 \times \{5 - 11\} \Rightarrow 16 \times \{-6\} \text{ Required answer } = -96$$

$$169. 40 - 2(12 + 13 \div 5 \times 3 - 5 \times 2) + 19 \Rightarrow 40 - 2(12 + 39/5 - 5 \times 2) + 19$$

$$\Rightarrow 40 - 2(12 + 7.8 - 10) + 19 \Rightarrow 40 - 2(19.8 - 10) + 19$$

$$\Rightarrow 40 - 2 \times 9.8 + 19 \Rightarrow 40 - 19.6 + 19 \Rightarrow 59 - 19.6 \Rightarrow 39.4$$

$$170. 20 \div [\{2 \times (-4)\} - 15 + 25] \Rightarrow 20 \div [\{-8\} + 10] \Rightarrow 20 \div 2 \Rightarrow 10$$

$$171. 384 \div 25 \times 3 + 8 = ? \Rightarrow (384/32) \times 3 + 8 = ? \Rightarrow 12 \times 3 + 8 = ?$$

$$\Rightarrow 36 + 8 = ? \Rightarrow 44$$

$$172. 384 \div 25 \times 3 + 8 = ? \Rightarrow (384/32) \times 3 + 8 = ? \Rightarrow 12 \times 3 + 8 = ?$$

$$\Rightarrow 36 + 8 = ? \Rightarrow 44$$

$$173. 105 \times 2 / (3 \times 5) - 6 \Rightarrow (210 / 15) - 6 \Rightarrow 14 - 6 = 8$$

$$174. 66 \times 32 \div 2^3 + 8 = 66 \times 32 \div 8 + 8 = 66 \times 4 + 8 = 264 + 8 = 272$$

$$175. 3.0005 \times 10000 = 30005, 1.748 \times 10000 = 17480, 30005 - 17480 = 12525$$

$$\therefore 12525/10000 = 1.2525$$

$$176. (55/11) + (18 - 6) \times 9 \Rightarrow 5 + 12 \times 9 \Rightarrow 113$$

$$177. \{8 + (2^4 + 3)\} \div 9 \Rightarrow \{8 + (16 + 3)\} \div 9 \Rightarrow (8 + 19) \div 9 \Rightarrow 27 \div 9 \Rightarrow 3$$

$$178. 140 \div [61 - \{36 - (40 - 60 \div 12 \times 6)\}]$$

$$\Rightarrow 140 \div [61 - \{36 - (40 - 5 \times 6)\}] \Rightarrow 140 \div [61 - \{36 - (40 - 30)\}]$$

$$\Rightarrow 140 \div [61 - \{36 - 10\}] \Rightarrow 140 \div [61 - 26] \Rightarrow 140 \div 35 \Rightarrow 4$$

$$179. 77 \div [46 - \{66 - (52 - 63 \div 9 \times 3)\}] \Rightarrow 77 \div [46 - \{66 - (52 - 7 \times 3)\}]$$

$$\Rightarrow 77 \div [46 - \{66 - (52 - 21)\}] \Rightarrow 77 \div [46 - \{66 - 31\}]$$

$$\Rightarrow 77 \div [46 - 35] \Rightarrow 77 \div 11 \Rightarrow 7$$

$$180. ? = (-5) \{20 - (-2) \times (-8)\} \Rightarrow (-5) \{20 - (16)\} \Rightarrow (-5) \{4\} \therefore ? = -20$$

$$181. 2 - [3 - \{6 - (5 - 4 - 3 + 10)\}]$$

$$\Rightarrow 2 - [3 - \{6 - (15 - 4 - 3)\}] \Rightarrow 2 - [3 - \{6 - (15 - 7)\}]$$

$$\Rightarrow 2 - [3 - \{6 - 8\}] \Rightarrow 2 - [3 + 2] \Rightarrow 2 - 5 \Rightarrow -3$$

$$182. 111 \div [-(5^2) + (-4) \text{ of } \{33 \div (-22 \div -2)\}]$$

$$\Rightarrow 111 \div [-25 + (-4) \text{ of } \{33 \div 11\}] \Rightarrow 111 \div [-25 + (-4) \text{ of } 3]$$

$$\Rightarrow 111 \div [-25 - 12] \Rightarrow 111 \div (-37) \Rightarrow (-3)$$

$$183. \{39 - (19 - 44)\} \div \{-4 \times 3 - (-4)\} \Rightarrow \{39 + 25\} \div \{-12 + 4\}$$

$$\Rightarrow 64 \div (-8) \Rightarrow (-8)$$

$$184. \frac{51}{50} - \frac{1}{50} \Rightarrow 50/50 \Rightarrow 1$$

$$185. 8 \times \{7 - (-2) \times (-4)\} \Rightarrow 8 \times \{7 - 8\} \Rightarrow 8 \times (-1) \Rightarrow (-8)$$

$$186. 92 - [71 + \{4 - (5 - (4 - 2))\}]$$

$$\Rightarrow 92 - [71 + \{4 - (5 - 2)\}] \Rightarrow 92 - [71 + \{4 - 3\}]$$

$$\Rightarrow 92 - [71 + 1] \Rightarrow 92 - 72 \Rightarrow 20$$

**187.**  $x = 63.5535/13.05, \therefore x = 4.87$

**188.**  $\Rightarrow 84 \div [50 - \{4^3 - (30 - 128 \div 32)\}]$   
 $\Rightarrow 84 \div [50 - \{64 - (30 - 4)\}] \Rightarrow 84 \div [50 - \{64 - 26\}]$   
 $\Rightarrow 84 \div [50 - 38] \Rightarrow 84 \div 12 \Rightarrow 7$

**189.**  $2.4 - 0.15 + 7.5 \Rightarrow 9.75$

**190.**  $\{(99 - 1)/7^2\} \times 2 + 8 = ? , \Rightarrow ? = \{98/49\} \times 2 + 8$   
 $\Rightarrow ? = 2 \times 2 + 8, \Rightarrow ? = 4 + 8 = 12$

**191.**  $104 \div [68 - \{29 - (45 - 56 \div 7 \times 4)\}] = ?$   
 $\Rightarrow ? = 104 \div [68 - \{29 - (45 - 8 \times 4)\}] \Rightarrow ? = 104 \div [68 - \{29 - 13\}]$   
 $\Rightarrow ? = 104 \div [68 - 16] \Rightarrow ? = 104 \div 52 \Rightarrow ? = 2$

**192.**  $129 \div [46 - \{93 \div (35 - 132 \div 33)\}]$   
 $\Rightarrow 129 \div [46 - \{93 \div (35 - 4)\}] \Rightarrow 129 \div [46 - \{93 \div 31\}]$   
 $\Rightarrow 129 \div [46 - 3] \Rightarrow 129 \div 43 \Rightarrow 3$

**193.**  $\Rightarrow \frac{16}{9} + \frac{5}{12} + \frac{7}{18} \Rightarrow (64 + 15 + 14)/36 \Rightarrow 93/36$

**194.**  $75 - (96 - 3 - 58) \div 5 + 4 \times 17 = ?$

$$\Rightarrow 75 - 35 \div 5 + 4 \times 17 = ? \Rightarrow 75 - 7 + 4 \times 17 = ?$$

$$\Rightarrow 75 - 7 + 68 = ? \Rightarrow 143 - 7 = ? \Rightarrow 136 = ?$$

**195.**  $\Rightarrow 30 - [29 - \{28 - (25 + 1)\}] = ? \Rightarrow 30 - [29 - \{28 - 26\}] = ?$   
 $\Rightarrow 30 - [29 - 2] = ? \Rightarrow 30 - 27 = ? \Rightarrow 3 = ?$

**196.**  $3 + [32 \div 8 \times 52 \div (4 + 9)] \Rightarrow 3 + [32 \div 8 \times 52 \div 13]$   
 $\Rightarrow 3 + [4 \times 4] \Rightarrow 3 + 16 \Rightarrow 19$

**197.**  $\{20 - (25 - 33)\} \div \{-5 \times 4 - (-6)\} + 56 \div (-27 + 13)$   
 $\Rightarrow \{20 - (-8)\} \div \{-5 \times 4 + 6\} + 56 \div (-14)$   
 $\Rightarrow \{20 + 8\} \div \{-20 + 6\} + 56 \div (-14)$   
 $\Rightarrow \{28\} \div \{-14\} + 56 \div (-14) \Rightarrow -2 - 4 \Rightarrow -6$

**198.** Step 1 : 7 of 4 =  $7 \times 4 = 28$ , Step 2 :  $112/28 = 4$   
 Step 3 :  $25 - 4 = 21$ , Step 4 :  $37 - 21 = 16$   
 Step 5 :  $40 - 16 = 24$ , Step 6 :  $144/24 = 6$

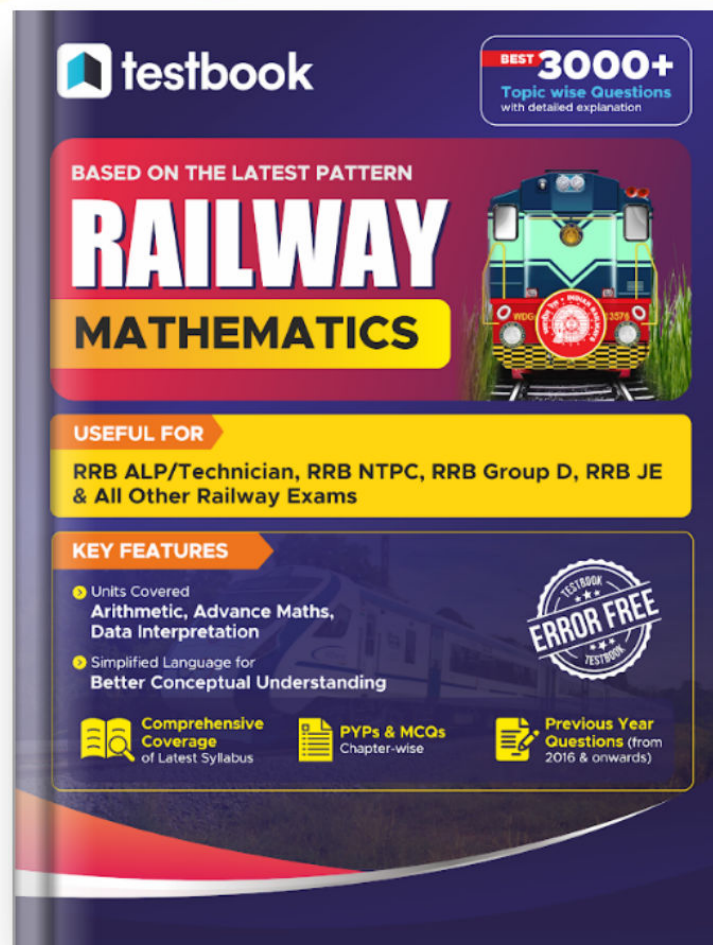
**199.**  $396 - 39.6 - 3.96 - 0.396 = ? \Rightarrow 396 - 43.956 = ? \Rightarrow 352.044 = ?$

**200.**  $(3.6 + 6.4)(3.6 - 6.4) - (3.6 - 6.4)^2 = ?$   
 $\Rightarrow 10 \times (-2.8) - (-2.8)^2 = ? \Rightarrow -28 - 7.84 = ? \Rightarrow -35.84 = ?$



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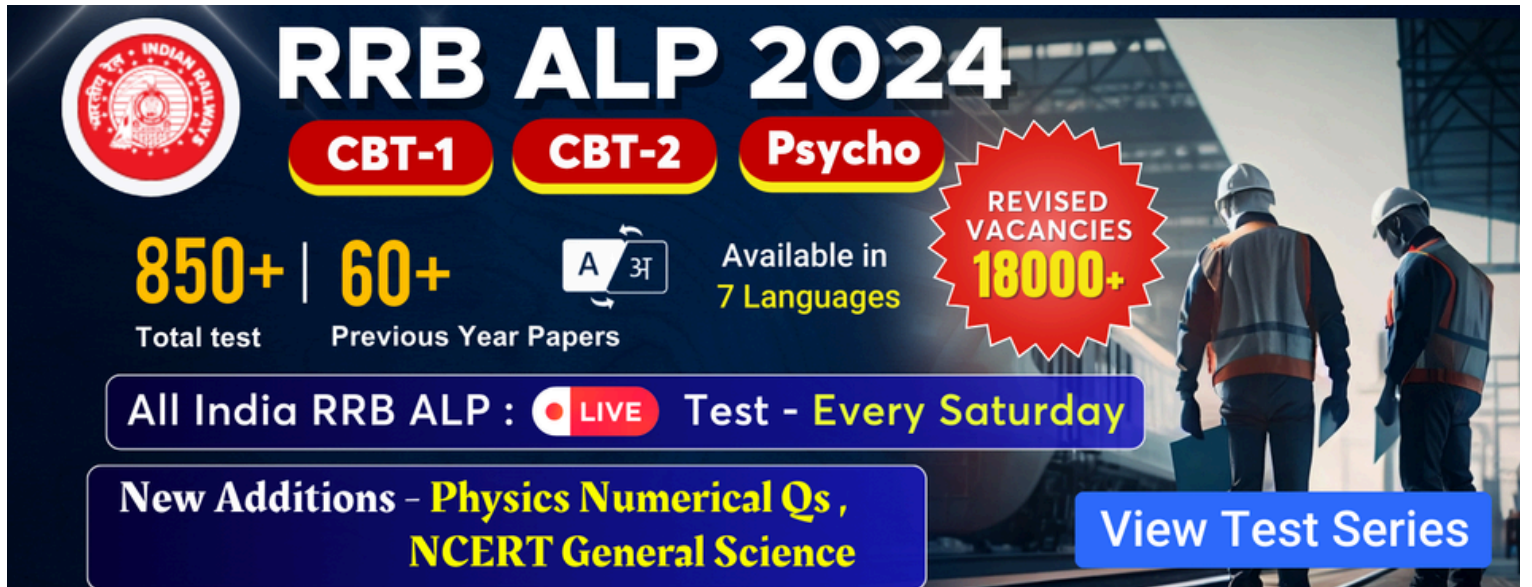
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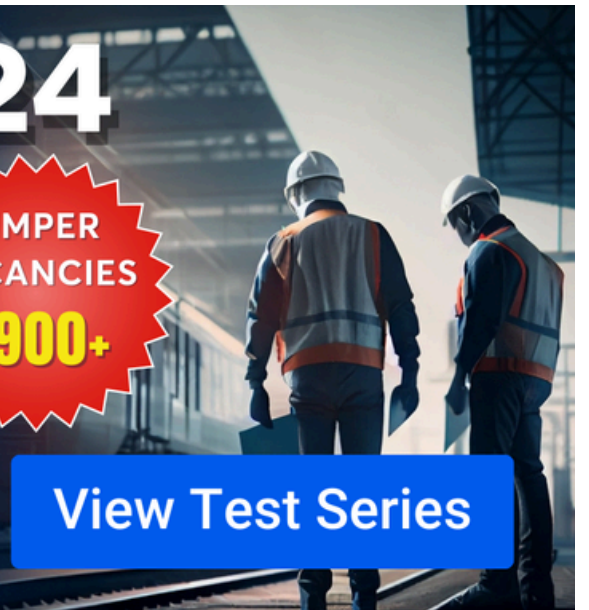
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