

Speed Enhancement Test - I
(Recommended time : 20 min.)

Questions 1 to 5: Additions/Subtractions

1. $9152 + 6843 + 2461 + 3008 = ?$
2. $2222 + 3333 + 8888 + 9999 = ?$
3. $3542 - 7156 - 2188 + 6843 = ?$
4. $53629 + 39431 + 8068 - 6543 + 6129 = ?$
5. $7849 - 2731 - 4132 - 1763 = ?$

Questions 6 to 10: Multiplications/Squares

6. $84 \times 126 = ?$
7. $644 \times 72 = ?$
8. $981 \times 992 = ?$
9. $473^2 = ?$
10. $213 \times 148 = ?$

Questions 11 to 15: Find the LCM and HCF of the given set of numbers.

		LCM	HCF
11.	38, 114, 190		
12.	26, 44, 64		
13.	70, 112, 168		
14.	20, 120, 144		
15.	280, 350, 490		

Questions 16 to 20: Percentages

16. 11% of 341 = ?
17. 18% of 83 = ?
18. What percentage of 151 is 71?
19. What percentage of 1234 is 569?
20. Find 12.5% of 968.

Questions 21 to 25: Fractions

21. $\frac{14}{16} + \frac{18}{32} + \frac{31}{48} = ?$
22. $\frac{16}{19} + \frac{23}{38} + \frac{76}{95} = ?$
23. $\frac{7}{12} + \frac{11}{18} + \frac{23}{42} = ?$
24. $\frac{8}{26} + \frac{12}{65} + \frac{17}{91} = ?$
25. $\frac{13}{36} + \frac{27}{54} - \frac{16}{81} = ?$

Speed Enhancement Test - 2
(Recommended time : 20 min.)

Questions 1 to 5: Additions/Subtractions

1. $3384 + 7295 + 8275 - 6845 - 5346 =$
2. $1784 + 3369 + 4328 + 7364 - 2965 =$
3. $9999 - 2345 - 1234 - 3456 - 123 = ?$
4. $7329 + 3563 + 8472 + 9245 + 2967 = ?$
5. $8253 + 7964 - 3489 - 6347 - 5732 = ?$

Questions 6 to 10: Multiplications

6. $378 \times 444 = ?$
7. $638 \times 428 = ?$
8. $991 \times 199 = ?$
9. $663 \times 369 = ?$
10. $483 \times 834 = ?$

Questions 11 to 15: Simplify the following till two decimal points.

11. 63 is what percentage of 142?
12. 85 is what percentage of 240?
13. 78 is what percentage of 715?
14. 69 is what percentage of 609?
15. 53 is what percentage of 270?

Questions 16 to 20: Find the least fraction.

16. $\frac{12}{21}, \frac{15}{23}, \frac{23}{37}, \frac{27}{45}$

17. $\frac{16}{39}, \frac{68}{167}, \frac{37}{91}, \frac{42}{111}$

18. $\frac{26}{48}, \frac{93}{104}, \frac{163}{241}, \frac{48}{63}$

19. $\frac{85}{62}, \frac{78}{42}, \frac{95}{79}, \frac{88}{54}$

20. $\frac{14}{23}, \frac{15}{24}, \frac{16}{25}, \frac{17}{26}$

Directions for questions 21 to 25: From the given choices, select the correct alternative which gives an appropriate value to replace the question mark (?).

21. $16 + 3(4 \times 3 - 8 \div 2) = ?$
(A) 54 (B) 40 (C) 76 (D) 80

22. $1500\% \text{ of } \left[\frac{3}{5}(8 - 5 \times 4 \div 2 + 7 \times 6) \right] = ?$
(A) 180 (B) 210 (C) 232 (D) 360

23. $\frac{1}{7}(8 \times 6 - 6 + 14 \times 8 - 42 \div 6) = ?$
(A) 21 (B) 40 (C) 42 (D) 28

24. $16.66\% \text{ of } 216 - 412 \div (208 \div 52) = ?$
(A) 101 (B) 118 (C) -67 (D) -57

25. $83.33\% \text{ of } 36 \times 5 - \frac{1}{11} \text{ of } 7777 + ? = -557.$
(A) 1 (B) 180 (C) 0 (D) 150

Speed Enhancement Test - 3
(Recommended time : 20 min.)

Questions 1 to 5: Multiplications

1. $632 \times 421 = ?$
2. $143 \times 321 = ?$
3. $728 \times 296 = ?$
4. $241 \times 233 = ?$
5. $678 \times 665 = ?$

Questions 6 to 10: Percentages

6. 15.3% of 285 = ?
7. 26.78% of 896 = ? (to the nearest integer)
8. 84.33% of 666 = ? (Upto one place of decimal)
9. 57.15% of 7280 = ?
10. 30 is what percentage of 243? (Upto one place of decimal)

Questions 11 to 13: Find the maximum of the following fractions.

11. $\frac{15}{34}, \frac{16}{38}, \frac{17}{39}, \frac{40}{96}, \frac{25}{63}$
12. $\frac{19}{72}, \frac{21}{85}, \frac{37}{159}, \frac{63}{253}$
13. $\frac{91}{76}, \frac{87}{70}, \frac{63}{57}, \frac{74}{69}$

Questions 14 and 15: Which among the following is neither the least nor the highest?

14. $\frac{27}{82}, \frac{28}{83}, \frac{37}{111}$
15. $\frac{19}{78}, \frac{67}{277}, \frac{33}{134}$

Questions 16 to 20: Find the LCM and HCF of the following numbers.

		LCM	HCF
16.	168, 72, 96		
17.	34, 63, 42		
18.	69, 75, 108		
19.	24, 65, 85		
20.	44, 52, 78		

Questions 21 to 25: Additions/Subtractions

21. $672 + 893 + 5640 + 3753 - 1254 = ?$
22. $6431 + 2194 + 3312 + 6317 + 123 + 2401 = ?$
23. $15632 + 69146 + 42913 + 63129 = ?$
24. $63512 + 9123 + 62 + 3146 + 331 = ?$
25. $342 - 6123 + 44196 - 33217 + 6247 = ?$

Speed Enhancement Test - 4
(Recommended time : 20 min.)

Questions 1 to 5: From the given choices, select the correct alternative which gives an approximate value to replace the question mark (?).

1. $16.002 \times 14.998 - 12.01 \times 4.980 = ?$
(A) 170 (B) 180
(C) 160 (D) 190
2. $24.998 \div 5.001 + 3.98 \times 2.01 = ?$
(A) 16 (B) 17 (C) 11 (D) 13
3. $\sqrt{35.87} \times \sqrt{49.01} + 5.10 \times 3.99 = ?$
(A) 66 (B) 65
(C) 62 (D) 64
4. $213.98 \div 106.9 + 8.03 \div 3.98 = ?$
(A) 3 (B) 2 (C) 4 (D) 5
5. $323.14 + 417.01 - 624.9 = ?$
(A) 115 (B) 110
(C) 120 (D) 118

Questions 6 to 10: Fractions

6. $\frac{7}{12} + \frac{9}{28} + \frac{3}{18} = ?$
7. $\frac{8}{36} + \frac{8}{48} + \frac{14}{27} = ?$
8. $\frac{7}{12} + \frac{5}{27} + \frac{4}{15} = ?$
9. Find the smallest among the following fractions.
 $\frac{5}{17}, \frac{7}{23}, \frac{9}{29}, \frac{14}{51}$

10. Arrange the following fractions in the ascending order.

$$\frac{67}{155}, \frac{39}{141}, \frac{71}{152}, \frac{83}{206}, \frac{47}{142}$$

Questions 11 to 15: Additions/Subtractions

11. $8729 + 7184 + 3345 + 4764 + 5253 = ?$
12. $6565 + 1113 + 8247 + 7617 + 1593 = ?$
13. $1536 + 8577 + 2345 + 6666 + 2936 = ?$
14. $1727 + 8476 - 444 - 6259 + 2759 = ?$
15. $354 + 752 - 928 - 336 + 414 = ?$

Questions 16 to 20: Percentages

16. 19.81% of 2400 = ?
17. 28% of 844 = ?
18. 4.44% of 1512 = ?
19. 92.5% of 3364 = ?
20. 152 is what percentage of 685? (Upto one place of decimal)

Questions 21 to 25: Multiplications

21. $378 \times 576 = ?$
22. $634 \times 783 = ?$
23. $167 \times 349 = ?$
24. $214 \times 487 = ?$
25. $167 \times 1421 = ?$

Speed Enhancement Test - 5

(Recommended time : 20 min.)

Questions 1 to 5: Percentage calculations

1. What is $56\frac{2}{3}\%$ of 720?
2. What is 57.5% of 350?
3. What is 98.5% of 775?
4. What is 90.66% of 840?
5. What is 34.33% of 570?

Questions 6 to 10: Multiplications

6. $384 \times 673 = ?$
7. $175 \times 425 = ?$
8. $513 \times 1008 = ?$
9. $556 \times 634 = ?$
10. $666 \times 777 = ?$

Questions 11 to 15: Fractions

11. Arrange the following in ascending order.
 $\frac{19}{35}, \frac{21}{39}, \frac{23}{45}, \frac{25}{51}$
12. Arrange the following in descending order.
 $\frac{47}{56}, \frac{73}{82}, \frac{65}{76}, \frac{81}{92}$
13. If $\frac{353}{181} = \frac{612}{x}$, then find the value of x.
14. Arrange the following fractions in ascending order.
 $\frac{34}{55}, \frac{41}{66}, \frac{48}{77}$

15. Arrange the following fractions in descending order.

$$\frac{40}{79}, \frac{41}{80}, \frac{42}{81}, \frac{43}{82}$$

Questions 16 to 20: Additions/Subtractions

16. $1584 + 1926 + 2323 - 4565 + 666 = ?$
17. $1268 + 979 + 3244 + 1873 + 65 = ?$
18. $965 + 1237 + 89554 + 96 = ?$
19. $7649 + 1865 + 2865 - 9273 = ?$
20. $6852 + 9634 + 5762 + 4358 - 7243 = ?$

Questions 21 to 25: Find the LCM and HCF of the following numbers.

		LCM	HCF
21.	32, 42, 72		
22.	36, 54, 81		
23.	48, 63, 99		
24.	77, 187, 110		
25.	18, 48, 72		

Speed Enhancement Test - 6
(Recommended time : 20 min.)

Questions 1 to 5: Multiplications

1. $123 \times 431 = ?$
2. $622 \times 729 = ?$
3. $823 \times 863 = ?$
4. $(342 \times 631) - (621 \times 334) = ?$
5. $(213 \times 414) - (316 \times 203) = ?$

Questions 6 to 10: Additions/Subtractions

6. $3652 + 9312 + 2213 + 2163 = ?$
7. $8742 + 8957 + 6394 + 3187 = ?$
8. $632 + 149 + 387 - 6123 + 8419 - 323 = ?$
9. $61 + 342 + 366 + 3842 + 33192 = ?$
10. $61215 - 3124 + 342 - 1463 + 129 = ?$

Questions 11 to 15: Percentages

11. 65.4% of 1578 = ?
12. 21.8% of 841 = ?
13. 48.8% of 1247 = ?
14. What percentage of 1134 is 463?
15. 561 is what percent of 384?

Questions 16 to 20: Fractions

16. Arrange the following in ascending order.
 $\frac{5}{9}, \frac{17}{19}, \frac{8}{9}, \frac{13}{15}, \frac{73}{85}$
17. Arrange the following in descending order.
 $\frac{9}{7}, \frac{13}{11}, \frac{23}{21}, \frac{49}{45}, \frac{89}{85}$
18. If $\frac{47}{140} = \frac{x}{237}$, then find x.
19. $\frac{21}{36} + \frac{2}{3} - \frac{25}{48} = ?$
20. $\frac{323}{675} - \frac{37}{75} + \frac{118}{225} = ?$

Questions 21 to 25: Find the LCM and HCF of the given set of numbers.

21. 77, 182, 286
22. 208, 312, 416
23. 408, 204, 816
24. 253, 506, 759
25. $\frac{306}{23}, \frac{187}{2}, \frac{198}{31}$

Speed Enhancement Test - 7
(Recommended time : 20 min.)

Questions 1 to 5: Percentages

1. What percentage of 729 is 630?
2. What percentage of 880 is 242?
3. What percentage of 549 is 81?
4. What percentage of 676 is 156?
5. What percentage of 999 is 562?

Questions 6 to 10: Multiplications

6. $123 \times 638 = ?$
7. $341 \times 441 = ?$
8. $678 \times 734 = ?$
9. $96 \times 431 = ?$
10. $112 \times 116 = ?$

Questions 11 to 15: Additions/Subtractions

11. $632 + 1293 + 8567 + 312 + 6178 = ?$
12. $3122 + 4163 + 3184 + 2122 + 1296 = ?$
13. $4138 + 7852 + 4293 + 8562 + 1374 = ?$
14. $61423 - 21496 + 31242 - 12978 = ?$
15. $613 - 2148 + 31824 - 61321 + 81429 = ?$

Questions 16 to 20: Fractions

16. Simplify : $\frac{73}{96} + \frac{17}{24} - \frac{31}{36}$
17. Simplify : $\frac{13}{85} - \frac{19}{51} + \frac{21}{34}$

18. Arrange the following in ascending order.

$$\frac{21}{10}, \frac{31}{15}, \frac{41}{20}, \frac{81}{40}, \frac{61}{30}$$

19. Arrange in descending order

$$\frac{101}{186}, \frac{71}{147}, \frac{19}{27}, \frac{43}{67}, \frac{39}{53}$$

20. Compare the following sets of fractions,

(a) $\frac{31}{73}$ and $\frac{67}{91}$

(b) $\frac{131}{348}$ and $\frac{159}{528}$

Directions for questions 21 to 25: From the given choices, select the correct alternative which gives an appropriate value to replace the question mark (?).

21. $\frac{5}{10} + \frac{7}{28} + \frac{8}{12} - \frac{6}{18} = ?$

- (A) 0.083 (B) 0.954 (C) 1.083 (D) 1.74

22. $\frac{3^2 \times 2^4 + 5 \times 3 \times 4^2}{24} = ?$

- (A) 15 (B) 24 (C) 8 (D) 16

23. $843.25 + ? - 234.75 = 436.50 + 624.25$

- (A) 452.25 (B) 464.75
(C) 475.25 (D) 484.25

24. $2187 - 3142 + 4286 - 3265 = ?$

- (A) 76 (B) 66 (C) 86 (D) 26

25. $2346 + 5421 + 7289 + 6453 - 2321 = ?$

- (A) 17688 (B) 23188 (C) 20088 (D) 19188

Speed Enhancement Test - 8
(Recommended time : 20 min.)

Questions 1 to 5: Multiplications

1. $249 \times 261 = ?$
2. $1421 \times 179 = ?$
3. $478 \times 563 = ?$
4. $888 \times 555 = ?$
5. $347 \times 373 = ?$

Questions 6 to 10: Percentages

6. 44% of 3564 = ?
7. $76\frac{2}{3}\%$ of 786 = ?
8. 67% of 387 = ?
9. 27% of 834 = ?
10. 20% of $\frac{25}{79} = ?$

Questions 11 to 15: Fractions

11. Arrange the following in ascending order.
 $\frac{8}{31}, \frac{9}{40}, \frac{23}{100}, \frac{57}{160}$
12. Arrange the following in descending order.
 $\frac{9}{32}, \frac{10}{41}, \frac{24}{101}, \frac{58}{161}$
13. $\frac{17}{90} + \frac{8}{45} - \frac{2}{135} = ?$

14. $\frac{13}{24} + \frac{7}{16} + \frac{1}{8} + \frac{11}{48} + \frac{3}{4}$

15. Arrange the following fractions in descending order.

$\frac{12}{131}, \frac{15}{173}, \frac{11}{127}, \frac{17}{203}, \frac{19}{238}$

Questions 16 to 20: Find the HCF and LCM of the given set of numbers.

	HCF	LCM
16. 260, 65, 195		
17. 238, 357, 187		
18. $\frac{665}{138}, \frac{399}{253}, \frac{532}{299}$		
19. 58, 69, 174		
20. 186, 279, 372		

Questions 21 to 25: Additions/Subtractions

21. $3485 + 6123 + 8769 + 1723 + 2443 = ?$
22. $8752 + 6197 + 31872 + 12964 = ?$
23. $4197 - 6382 + 1294 - 2345 + 8753 = ?$
24. $213 - 6178 + 4183 - 2127 + 61842 = ?$
25. $13576 - 3129 - 8845 + 6163 = ?$

Speed Enhancement Test - 9
(Recommended time : 20 min.)

Questions 1 to 5: Fractions

- $\frac{4}{35} + \frac{2}{15} - \frac{8}{105} = ?$
- $\frac{5}{144} - \frac{7}{288} + \frac{1}{48} =$
- If $\frac{323}{452} = \frac{685}{x}$, then $x = ?$ (to the nearest integer)
- Arrange the following fractions in ascending order.
 $\frac{8}{21}, \frac{11}{32}, \frac{17}{48}, \frac{19}{58}, \frac{22}{65}$
- Arrange the following fractions in descending order.
 $\frac{28}{19}, \frac{43}{22}, \frac{87}{43}, \frac{18}{11}, \frac{120}{67}$

Questions 6 to 10: Additions

- $312 + 3314 + 31423 + 6129 - 12121 = ?$
- $318 - 213 + 617 - 412 + 885 - 642 = ?$
- $4382 + 6123 + 1398 + 1212 + 664 = ?$
- $21345 - 31269 + 230 - 3892 + 61243 = ?$
- $6678 + 7789 + 8890 + 1012 - 2314 = ?$

Questions 11 to 15: Multiplications

- $312 \times 463 = ?$
- $773 \times 482 = ?$
- $654 \times 567 = ?$

14. $127 \times 963 = ?$

15. $86 \times 93 = ?$

Questions 16 to 20: Percentages

16. 41.66% of 372

17. 63.52% of 888

18. 24.91% of 780

19. 77.20% of 531

20. 81% of 777

Directions for questions 21 to 25: From the choices, select the one which gives an appropriate value to replace the question mark (?).

21. $\left[27 \div [4 \text{ of } 5 - \overline{16-4} + 2 \times 4 - 7] \right] \div$

$\left\{ 36 + 3 [17 - \{32 - \overline{34-6}\} - 2(5+6) - 2] \right\} = ?$

- (A) 2 (B) 3 (C) 1 (D) 4

22. $\left[18 \div 3 \text{ of } 6 - 321 + 8 \times 40 \right] \times \left[3^2 + 5^2 - 2^5 + 1 \right] = ?$

- (A) 1 (B) 0 (C) 2 (D) 3

23. $\left[60^2 - 54 \times 33 \right] + \left[6^2 + 27 \times 66 \right] = ?$

- (A) 1818 (B) 2727 (C) 3636 (D) 4545

24. $\left[(33 + 27)^2 + (33 - 27)^2 \right] \text{ of } 1/2 \div 303 = ?$

- (A) 4 (B) 12 (C) 3 (D) 6

25. $\frac{16.5^3 + 17.5^3 + 18.5^3 - 49.5 \times 17.5 \times 18.5}{16.5^2 + 17.5^2 + 18.5^2 - 16.5 \times 17.5 - 17.5 \times 18.5 - 18.5 \times 16.5} = ?$

- (A) 25.5 (B) 52.5 (C) 51.5 (D) 28.5

Speed Enhancement Test - 10
(Recommended time : 20 min.)

Questions 1 to 5: Percentages

1. 165 is what percentage of 792?
2. 87% of 4564?
3. 38.38% of 990 = ? (to the nearest integer)
4. 44% of 32.96 = ?
5. 78 is what percentage of 708 = ?

Questions 6 to 10: Find the LCM and HCF of the given set of numbers and complete the table.

		LCM	HCF
6.	30, 160, 75		
7.	54, 45, 44		
8.	36, 84, 64		
9.	13, 15, 17		
10.	48, 50, 54		

Questions 11 to 15: Fractions

11. Simplify : $\frac{11}{72} + \frac{4}{27} + \frac{5}{144}$
12. Simplify : $\frac{7}{36} + \frac{4}{45} - \frac{13}{120}$

13. Simplify : $\frac{8}{30} + \frac{15}{25} - \frac{22}{66}$

14. Arrange the fractions in ascending order.

$\frac{9}{34}, \frac{10}{38}, \frac{11}{42}, \frac{13}{48}$

15. Which of the following fractions is the smallest.

$\frac{88}{31}, \frac{113}{48}, \frac{97}{40}, \frac{263}{112}$

Questions 16 to 20: Multiplications

16. $1004 \times 972 =$
17. $496 \times 375 =$
18. $1828 \times 59 =$
19. $444 \times 720 =$
20. $1123 \times 43 =$

Questions 21 to 25: Additions/Subtractions

21. $844 + 569 - 282 - 464 = ?$
22. $7268 + 3993 + 856 - 2757 + 94 = ?$
23. $326584 + 179378 - 3029 = ?$
24. $3496 + 6357 - 7953 + 582 = ?$
25. $354 + 631 + 248 + 139 + 9765 = ?$

Speed Enhancement Test - 11
(Recommended time : 18 min.)

Questions 1 to 5: Additions/Subtractions

1. $8592 + 6834 + 3845 - 7263 + 2723 = ?$
2. $428 - 306 - 742 + 96.3 - 84 = ?$
3. $647 + 3378 + 9309 + 8247 - 119 = ?$
4. $7581 + 1636 - 4525 - 3.33 - 8294 = ?$
5. $-647 + 4686 + 742 - 7263 + 9309 = ?$

Questions 6 to 10: Find the LCM and HCF of the following numbers.

		LCM	HCF
6.	32, 48, 60		
7.	63, 24, 75		
8.	21, 35, 140		
9.	44, 9, 33		
10.	27, 36, 45		

Questions 11 to 15: Fractions

11. Find the smallest of the following fractions.
 $\frac{38}{85}, \frac{41}{92}, \frac{23}{57}, \frac{47}{97}, \frac{36}{71}$
12. Arrange the following fractions in descending order.
 $\frac{16}{53}, \frac{230}{427}, \frac{78}{163}, \frac{49}{101}, \frac{93}{222}$

13. If $\frac{87}{260} = \frac{162}{x}$, then $x = ?$

14. $\frac{25}{104} + \frac{17}{156} - \frac{43}{624} = ?$

15. Arrange the following in Descending order.
 $\frac{23}{72}, \frac{36}{103}, \frac{55}{168}, \frac{84}{225}, \frac{5}{18}$

Questions 16 to 20: Percentages

16. 33% of 784 =
17. 3.57% of 560 =
18. 54.16% of 480 =
19. 85% of 16 =
20. 69 is what percentage of 320? (Upto two places of decimals).

Questions 21 to 25: Multiplications

21. $325 \times 425 = ?$
22. $645 \times 15 = ?$
23. $625 \times 375 = ?$
24. $984 \times 988 = ?$
25. $152 \times 153 = ?$

Speed Enhancement Test - 12
(Recommended time : 18 min.)

Questions 1 to 5: Multiplications

1. $480 \times 620 =$
2. $144 \times 1728 =$
3. $93 \times 97 = ?$
4. $135 \times 490 =$
5. Thousand's digit of the product 384×857 is

Questions 6 to 10: Percentages

6. $58\frac{1}{3}\%$ of 1926 =
7. 40.08% of 2400 =
8. $4\frac{1}{2}\%$ of 856 =
9. 48 is what percentage of 104? (upto two places of decimals)
10. 128 is what percentage of 1850? (upto one place of decimal)

Questions 11 to 15: Fractions

11. Find the difference between the smallest and largest fractions of the following:
 $\frac{11}{23}, \frac{17}{40}, \frac{21}{62}, \frac{39}{125}, \frac{25}{92}$
12. $\frac{3}{249} + \frac{17}{166} - \frac{4}{83} = ?$

13. $\frac{4}{95} + \frac{5}{76} - \frac{7}{114} = ?$

14. If $\frac{67}{837} = \frac{91}{x}$, then $x = ?$

15. $\frac{23}{25} + \frac{17}{20} - \frac{11}{30} =$

Questions 16 to 20: Additions/Subtractions

16. $6347 + 9552 + 8263 + 7885 - 438 = ?$
17. $10084 + 3736 + 923 - 692 = ?$
18. $6565 + 8282 - 9393 - 319 - 63 = ?$
19. $889 + 2375 + 3742 + 1036 + 7781 = ?$
20. $-3256 - 4163 + 892 + 1525 + 3947 = ?$

Questions 21 to 25: Find the LCM and HCF of the following numbers.

		LCM	HCF
21.	32, 60, 72		
22.	49, 84, 63		
23.	112, 196, 77		
24.	26, 65, 104		
25.	45, 75, 225		

Speed Enhancement Test - 13
(Recommended time : 18 min.)

Directions for questions 1 to 5: From the given choices, select the correct alternative which gives an approximate value to replace the question mark (?).

1. $18.041 \div 3 - 42.85 = ?$
(A) -48 (B) -37 (C) -36 (D) -16
2. $482.71 + 281.33 - 825.38 + 71.9 = ?$
(A) 132 (B) -31 (C) -81 (D) 11
3. $(77.77\% \text{ of } 81.42 + 31 - 8) \div ? = 2$
(A) 46 (B) -134 (C) 43 (D) -27
4. $8.333\% \text{ of } 4836 \div 2 - 23.821 = ?$
(A) 169 (B) 179 (C) 64 (D) -14
5. $42.93 - 82.66 + 729.82 \div 9 \times 2 = ?$
(A) 122 (B) 816 (C) 431 (D) 139

Questions 6 to 10: Percentages

6. 855 is what percentage of 2736?
7. 159 is what percentage of 951? (correct to one place of decimal)
8. 22.5% of 832 = ?
9. 69.23% of 1443 = ? (round off to the nearest integer)
10. 37% of 625 =

Questions 11 to 15: Additions/Subtractions

11. $3384 + 7295 + 8275 - 6845 - 5346 =$
12. $1784 + 3369 + 4328 + 7364 - 2965 =$
13. $9999 - 2345 - 1234 - 3456 - 123 = ?$

14. $7329 + 3563 + 8472 + 9245 + 2967 = ?$

15. $8253 + 7964 - 3489 - 6347 - 5732 = ?$

Questions 16 to 20: Multiplications

16. $378 \times 444 = ?$

17. $638 \times 428 = ?$

18. $991 \times 199 = ?$

19. $663 \times 369 = ?$

20. $483 \times 834 = ?$

Questions 21 to 25: Fractions

21. $5\frac{1}{9} \times 1\frac{4}{17} \div 1\frac{5}{37} \div 1\frac{5}{18} = ?$

22. Arrange the following in ascending order.

$$\frac{17}{20}, \frac{61}{72}, \frac{265}{312}, \frac{340}{399}$$

23. Find x given that $\frac{297}{399} = \frac{693}{x}$.

24. Find the greatest and the least of the following

fractions $\frac{83}{75}, \frac{165}{151}, \frac{37}{33}, \frac{141}{125}$

25. Find given that $\frac{x}{12} = \frac{501}{792}$.

Speed Enhancement Test - 14
(Recommended time : 18 min.)

Questions 1 to 5: Fractions

1. $\frac{13}{75} + \frac{12}{50} + \frac{11}{25} = ?$
2. $\frac{156}{25} + \frac{237}{50} + \frac{526}{125} + \frac{431}{100} = ?$
3. $\frac{7}{180} + \frac{11}{60} + \frac{13}{90} = ?$
4. $\frac{4}{57} + \frac{1}{12} = ?$
5. $7\frac{1}{3} + 5\frac{1}{6} + 5\frac{1}{2} + 4\frac{1}{6} - 7\frac{5}{6} = ?$

Questions 6 to 10: Find the LCM and HCF of the given numbers.

6. $\frac{17}{25}, \frac{13}{35}, \frac{11}{45}$
7. 234, 156, 273 (Express the answer as product of prime factors)
8. 255, 425, 595 (Express the answer as product of prime factors)
9. 270, 540, 216
10. 360, 324, 288

Questions 11 to 15: Multiplications

11. $738 \times 84 =$
12. $945 \times 1055 =$
13. $101 \times 909 =$
14. $984 \times 108 =$
15. $728 \times 772 =$

Questions 16 to 20: Percentages

16. 48% of 8420 = ?
17. 16.5% of 784 = ?
18. 20.63% of 1890 = (to the nearest integer)
19. 423 is what percentage of 2285?
20. 648 is what percentage of 1344?

Questions 21 to 25: Additions and subtractions

21. $3742 + 6138 + 9898 + 9654 + 3819 = ?$
22. $1987 + 8942 + 4796 + 9834 + 3999 = ?$
23. $31642 + 38943 - 6183 + 42976 - 32134 = ?$
24. $617 + 178 + 789 - 895 + 63129 - 4216 = ?$
25. $85 - 63 + 219 - 632 + 4196 - 3123 = ?$

Speed Enhancement Test - 15
(Recommended time : 18 min.)

Questions 1 to 5: Find the LCM and HCF of the following numbers.

		LCM	HCF
1.	42, 70, 105		
2.	36, 75, 90		
3.	26, 104, 156		
4.	45, 75, 135		
5.	24, 66, 88		

Questions 6 to 10: Percentages

6. 58. $\frac{1}{3}$ % of 1926 =
7. 40.08% of 2400 =
8. 4½% of 856 =
9. 48 is what percentage of 104? (upto two places of decimals)
10. 128 is what percentage of 1850? (upto one place of decimal)

Questions 11 to 15: Additions/Subtractions

11. 3856 + 4972 – 5273 – 8295 + 7796 = ?
12. 3201 + 7873 + 5279 + 4364 + 6894 = ?
13. 443 + 784 + 992 + 856 – 738 – 549 = ?

14. $-7123 + 8243 + 9963 - 4583 + 3333 = ?$

15. $984 + 1032 - 3746 + 6925 + 4736 = ?$

Questions 16 to 20: Fractions

16. Find the value of x to two decimal places

$$\frac{x}{507} = \frac{12}{649}$$

- (A) 9.34 (B) 9.36 (C) 9.37 (D) 9.40

17. Find the value of x to one decimal place $\frac{x}{53} = \frac{153}{47}$.

18. Arrange the following fractions in ascending order.

$$\frac{7}{26}, \frac{23}{87}, \frac{25}{93}, \frac{13}{48}$$

19. Find the value of the expression

$$\frac{(1.75^2 + 1.85^2 + 1.95^2 + 3.5 + 1.85 + 3.7 \times 1.95 + 3.9 \times 1.75)}{5.555}$$

20. $\frac{5}{39} + \frac{7}{65} + \frac{3}{2} = ?$

Questions 21 to 25: Multiplications

21. $993 \times 96 =$

22. $68 \times 132 =$

23. $209 \times 231 =$

24. $486 \times 243 =$

25. $994 \times 1008 =$

Speed Enhancement Test - 16
(Recommended time : 18 min.)

Questions 1 to 5: Percentages

1. 54.16% of 1320 = ? (to the nearest integer).
2. 52.8% of 2499 = ? (Round off to the next integer).
3. 42.44% of 3690 = ? (to the nearest integer)
4. 234 is what percentage of 888?
5. 16 is what percentage of 1849? (Upto two places of decimal)

Questions 6 to 10: Additions/Subtractions

6. $6719 + 8752 + 9637 + 1864 = ?$
7. $3195 - 3126 + 6313 - 4215 + 5739 = ?$
8. $6123 - 37142 + 14216 - 3127 + 7795 =$
9. $2172 + 8543 + 9794 + 6142 + 3897 = ?$
10. $4385 + 9796 + 7863 - 31264 = ?$

Questions 11 to 15: Multiplications

11. $307 \times 333 =$
12. $93 \times 1024 =$
13. $997 \times 994 =$
14. $538 \times 492 =$
15. $612 \times 268 =$

Questions 16 to 20: Find the LCM and HCF of the following numbers.

	GCD	LCM
16. 24, 39, 65		
17. 9, 29, 99		
18. 44, 64, 24		
19. 42, 72, 12		
20. 16, 54, 88		

Questions 21 to 25: Fractions

21. Arrange the following fractions in ascending order.

$$\frac{395}{38}, \frac{447}{43}, \frac{343}{33}, \frac{52}{5}$$

22. Find x given that $\frac{x}{123} = \frac{131}{205}$.

23. Find the value of x to one decimal place given that

$$\frac{x}{100} = \frac{282}{825}$$

24. $\frac{5}{33} + \frac{7}{55} + \frac{19}{165} = ?$

25. Arrange the following fractions in descending order.

$$\frac{20002}{10201}, \frac{200}{101}, \frac{2000600}{1030301}$$

Speed Enhancement Test - 17
(Recommended time : 18 min.)

Questions 1 to 5: Percentages

1. 16.78% of 567 = ?
2. 35.33% of 780 = ?
3. 71.66% of 1236 = ?
4. What percentage of 1354 is 861?
5. By what percentage is 1151 less than 1823?

Questions 6 to 10: Additions/Subtractions

6. $73923 + 80453 + 19685 + 23889 = ?$
7. $4324 + 7288 + 9346 + 6289 = ?$
8. $10238 + 5792 - 1601 - 8784 = ?$
9. $3312 + 2298 + 5587 - 9963 = ?$
10. $16385 - 972 + 6727 - 858 = ?$

Questions 11 to 15: Multiplications

11. $55 \times 631 = ?$
12. $334 \times 672 = ?$
13. $196 \times 195 = ?$
14. $238 \times 742 = ?$
15. $231 \times 122 = ?$

Questions 16 to 20: Fractions

16. Arrange the following fractions in ascending order.
 $\frac{17}{11}, \frac{25}{19}, \frac{59}{41}, \frac{67}{49}$
17. Arrange the following fractions in descending order.
 $\frac{15}{11}, \frac{13}{9}, \frac{444}{301}, \frac{764}{505}$
18. Find the approximate value of x, if $\frac{x}{12} = \frac{16}{215}$.
(A) 0.86 (B) 0.87 (C) 0.88 (D) 0.89
19. Find the fractional value of x satisfying the equation
 $\frac{187x}{221} = \frac{247}{2197}$.
20. Arrange in descending order $\frac{69}{73}, \frac{41}{51}, \frac{88}{103}, \frac{58}{93}$

Questions 21 to 25: LCM and GCD

21. Find the LCM of 112, 77 and 175.
22. Find the GCD of 726, 1155 and 1386.
23. Find the LCM of 96, 18 and 144.
24. Find the GCD of 336, 666 and 996.
25. Find the LCM and HCF of 564, 705 and 282?

Speed Enhancement Test - 18
(Recommended time : 18 min.)

Questions 1 to 5: Multiplications

1. $621 \times 342 = ?$
2. $732 \times 123 = ?$
3. $129 \times 632 = ?$
4. $1024 \times 128 = ?$
5. $134 \times 872 = ?$

Questions 6 to 10: Percentages

6. 47.19% of 1640 = ?
7. 26.8% of 580 = ?
8. 39.6% of 760 = ?
9. What percentage of 534 is 949?
10. By what percentage is 138 less than 461?

Questions 11 to 15: Additions/Subtractions

11. $772 + 845 - 69 + 524 + 437 = ?$
12. $2203 + 3202 + 2302 + 2032 + 3022 = ?$
13. $6798 + 7524 + 918 - 3451 + 2692 = ?$
14. $50623 - 38452 + 19266 + 24075 + 937 = ?$
15. $3582 + 7464 - 9247 + 8325 - 1712 = ?$

Questions 16 to 20: Fractions

16. Arrange the following fractions in ascending order.
 $\frac{41}{55}, \frac{48}{65}, \frac{63}{85}, \frac{71}{95}$
17. Arrange the following fractions in descending order.
 $\frac{43}{76}, \frac{38}{66}, \frac{48}{86}, \frac{53}{96}$

18. Find x given that $\frac{684}{225} = \frac{x}{102}$.

19. Find x given that $\frac{89}{235} = \frac{x}{48}$.
(A) 17.8 (B) 17.65 (C) 17.75 (D) 18.2

20. Find x given that $\frac{x}{108} = \frac{127^2 - 19^2}{216^2}$.

Directions for questions 21 to 25: From the choices, select the one which gives an appropriate value to replace the question mark (?).

21. $\frac{15(27+13) - 6(92-41)}{42(8-6) - 7(63-72)} = ?$
(A) 2 (B) 3 (C) 1 (D) 4

22. $\left(13 \text{ of } \frac{40}{26} - 19 \text{ of } \frac{44}{76} + 35 \text{ of } \frac{1}{5}\right) \times$
 $\left[-7 + \{18 - 35 \div 7 - 3\}\right] = ?$
(A) 24 (B) 16 (C) 8 (D) 48

23. $\left(2\% \text{ of } 3\% \text{ of } 4\% \text{ of } 5\% \text{ of } \frac{10000000}{12}\right) -$
 $\left(38 \times 42 \div 7 - \frac{(326+128)}{2}\right) = ?$
(A) 2 (B) 0 (C) 1 (D) 3

24. $\left(8\% \text{ of } 20\% \text{ of } 15\% \text{ of } 25\% \text{ of } 10\% \text{ of } \frac{(100)^3}{60}\right) \div$
 $\left(186 - \{192 + (-41 + 90 \text{ of } \frac{1}{3})\}\right) = ?$
(A) 1/5 (B) 1/4 (C) 1/3 (D) 1/2

25. $\left(3 - 5 - \{21 - \frac{35-6}{7}\} \text{ of } \frac{7}{8}\right) \times$
 $\left(\frac{540(10^4 - 2 \times 400 + 4^3)}{(108)^3 - 2400 \times 108}\right) = ?$
(A) 5 (B) 25 (C) 1 (D) 15

Speed Enhancement Test - 19
(Recommended time : 18 min.)

Questions 1 to 3: Fractions

1. $\frac{13}{24} + \frac{5}{48} + \frac{7}{96} + \frac{19}{192} = ?$
2. $\frac{7}{54} + \frac{5}{36} = ?$
3. Arrange the following in ascending order.
 $\frac{9}{28}, \frac{16}{49}, \frac{23}{70}, \frac{30}{91}$

Questions 4 and 5: Find the approximate value of x.

4. $\frac{x}{201} = \frac{375}{621}$
5. $\frac{231}{X} = \frac{123}{419}$

Questions 6 to 10: LCM and HCF.

6. Find LCM of 64, 56 and 72.
7. Find LCM of 27, 108 and 162.
8. Find the HCF and LCM of 108, 144 and 96.
9. Find the HCF and LCM of 170, 255, 425
10. 1212, 1236, 1284 (Express the LCM as a product of prime factors.)

Questions 11 to 15: Multiplications

11. $889 \times 463 = ?$
12. $342 \times 985 = ?$
13. $124 \times 638 = ?$
14. $442 \times 741 = ?$
15. $63 \times 431 = ?$

Questions 16 to 20: Additions/Subtractions

16. $3456 + 8852 + 3312 + 6819 = ?$
17. $352 + 457 + 639 + 783 + 1023 = ?$
18. $2134 - 6132 + 6319 - 1237 + 6877 + 143 = ?$
19. $21212 + 12346 - 31875 + 10023 = ?$
20. $12 - 234 + 6124 - 3123 = ?$

Questions 21 to 25: Percentages

21. 38.38% of 836 = ?
22. 14.85% of 548 = ?
23. 76.66% of 1158 = ?
24. 1548 is what percentage of 3891?
25. By what percentage should 4128 be increased to become 5971?

Speed Enhancement Test - 20
(Recommended time : 18 min.)

Questions 1 to 5: Multiplications

1. $342 \times 768 = ?$
2. $989 \times 898 = ?$
3. $432 \times 324 = ?$
4. $588 \times 858 = ?$
5. $906 \times 609 = ?$

Questions 6 to 10: Fractions

6. $\frac{27}{100} + \frac{43}{125} - \frac{89}{250} = ?$
7. $\frac{23}{112} + \frac{85}{168} - \frac{93}{140} = ?$
8. If $\frac{257}{640} = \frac{x}{525}$, find x.
9. Find y given that $\frac{459}{152} = \frac{y}{380}$.
10. Find y given that $\frac{39}{18} = \frac{y}{271}$.

Questions 11 to 15: Find the LCM and HCF of the following numbers.

		LCM	HCF
11.	12, 45, 36		
12.	48, 40, 72		
13.	30, 50, 75		
14.	60, 48, 180		
15.	125, 45, 225		

Questions 16 to 20: Percentages

16. 127.5% of 1232 = ?
17. 13.28% of 638 = ?
18. 41.6% of 279 = ?
19. What percent of 237 is 197?
20. 348 when increased by 31.4% becomes _____?

Questions 21 to 25: Additions/Subtractions

21. $123 + 842 + 631 + 928 + 742 + 338 = ?$
22. $6854 + 3219 + 8852 + 7413 + 6129 = ?$
23. $8123 + 3876 + 5455 + 6123 - 1287 = ?$
24. $61823 - 2344 - 3126 + 123 - 3888 = ?$
25. $3182 - 6123 + 1294 - 7123 + 9126 + 26 = ?$

Speed Enhancement Test - 21
(Recommended time: 15 min.)

Questions 1 to 5: Percentages

1. 23.1% of 738 = ?
2. 49.4% of 479 = ?
3. 41.25% of 672 = ?
4. 237 is what percentage of 371?
5. What percentage of 561 is 329?

Questions 6 to 10: Find the GCD and LCM of the following sets of numbers.

		GCD	LCM
6.	34, 51, 85		
7.	24, 60, 80		
8.	48, 36, 90		
9.	63, 54, 72		
10.	121, 88, 66		

Questions 11 to 15: Additions/Subtractions

11. $223 + 784 - 915 + 638 + 425 - 716 = ?$
12. $4837 + 6255 + 9623 + 8515 + 5962 = ?$
13. $7515 - 6823 + 9216 - 642 + 881 = ?$
14. $2361 - 75 + 943 + 8272 + 3643 = ?$

15. $-3959 + 7231 + 8246 + 2398 + 4658 = ?$

Questions 16 to 20: Multiplications

16. $126 \times 174 = ?$
17. $182 \times 128 = ?$
18. $169 \times 961 = ?$
19. $426 \times 684 = ?$
20. $136 \times 464 = ?$

Directions for questions 21 to 25: From the choices select the one which gives an approximate value to replace the question mark (?)

21. $1432 \div 13 \times 5.62 - 59.99 = ?$
(A) 200 (B) 600 (C) 1600 (D) 1800
22. $3.14 \times 3.14 \times 3.14 + 5.26 \times 5.26 \times 5.26 + 3 \times 3.14 \times 3.14 \times 5.26 + 3 \times 3.14 \times 5.26 \times 5.26 = ?$
(A) 8.4 (B) 592.704
(C) 70.56 (D) 78.96
23. $0.00684 \div 30 \times 10^6 = \sqrt{?}$
(A) 228 (B) 19842 (C) 23521 (D) 51984
24. $\sqrt{576} \times 15 = 19.87 \times ?$
(A) 18 (B) 21 (C) 16 (D) 24
25. $\frac{971.98}{54} \times 123.12 + 235.68 - 134.05 = ?$
(A) 2316 (B) 3216 (C) 2614 (D) 4316

Speed Enhancement Test - 22
(Recommended time : 15 min.)

Questions 1 to 5: Multiplications

1. $632 \times 498 = ?$
2. $313 \times 896 = ?$
3. $673 \times 432 = ?$
4. $774 \times 668 = ?$
5. $378 \times 196 = ?$

Questions 6 to 10: Additions/Subtractions

6. $19763 + 45289 + 31267 + 94374 = ?$
7. $6164 + 3132 - 1993 + 8898 - 1234 = ?$
8. $4143 + 8421 + 1248 + 9631 - 3345 = ?$
9. $6166 - 2854 + 6432 - 7887 + 9436 = ?$
10. $63 + 263 + 1263 + 41263 - 41865 = ?$

Questions 11 to 15: Fractions

11. Arrange the following in descending order.
 $\frac{15}{29}, \frac{17}{39}, \frac{21}{49}, \frac{41}{69}$
12. Arrange the following in ascending order.
 $\frac{11}{60}, \frac{15}{83}, \frac{17}{90}, \frac{13}{70}$
13. If $\frac{274}{411} = \frac{x}{221}$, then find the value of x.
14. Arrange the following fractions in descending order.
 $\frac{71}{193}, \frac{93}{201}, \frac{57}{139}, \frac{63}{161}, \frac{89}{206}$

15. $\frac{27}{66} + \frac{31}{102} = ?$

Questions 16 to 20: Give the correct answer for the following

16. A four digit number is a perfect square. Its first two digit form a perfect square. Its base two digits, being non-zeros, also form a perfect square. Find the number given its square root is less than 60.
17. The sum of the square of a number and the cube of another natural number is 793. If the difference between both the numbers is a prime number, find the sum of the two numbers.
18. The square of a two-digit natural number exceeds the cube of another single digit natural number by 9. Find the sum of the two numbers.
19. Find the value of $\sqrt{49284}$.
20. Find the value of the cube root of 1092727.

Questions 21 to 25: Percentages

21. What is 35% of 870 ?
22. What is 62% of 442?
23. What is 57% of 670?
24. What is 23% of 1024?
25. What is 18% of 1008?

Speed Enhancement Test - 23
(Recommended time : 15 min.)

Questions 1 to 5: What will come in the place of question mark (?) ?

1. $(367 \times 123) - 1234 = ?$
2. $(378 \times 12) - 234 = ?$
3. $(6 + 342 + 1296) \div 3 - \frac{2364}{4} = ?$
4. $(281 \times 362) + 1237 = ?$
5. $\frac{(15.38)^3 + (14.62)^3}{236.5444 - (15.38)(14.62) + 213.7444} = ?$

Questions 6 to 10: Percentages

6. What is 42% of 436 ?
7. What is 63% of 231?
8. What is 28% of 431?
9. What is 72% of 888?
10. What is 56% of 784?

Questions 11 to 15: Find the LCM and HCF of the following numbers.

		LCM	HCF
11.	21, 35, 42		
12.	8, 24, 36		
13.	22, 88, 121		
14.	26, 65, 78		
15.	28, 63, 77		

Questions 16 to 20: Additions/Subtractions

16. $61423 + 98198 + 89412 - 63875 - 21432 = ?$
17. $876 - 4359 + 61854 - 3129 + 31426 = ?$
18. $631 - 48596 + 6894 - 68 + 31426 = ?$
19. $41848 - 61363 + 24323 - 43848 + 77474 = ?$
20. $48 + 63 + 72 + 91 + 106 + 318 - 2342 + 6819 - 3342 = ?$

Questions 21 to 25: Multiplications

21. $613 \times 34 = ?$
22. $499 \times 8230 = ?$
23. $78 \times 92 = ?$
24. $94 \times 994 = ?$
25. $235 \times 265 = ?$

Speed Enhancement Test - 24
(Recommended time : 15 min.)

Questions 1 to 5: Additions/Subtractions

1. $4782 + 396 + 4436 + 6118 + 2613 = ?$
2. $2648 + 1056 - 544 + 2149 - 268 = ?$
3. $62 + 79 - 82 + 91 - 46 - 73 + 58 = ?$
4. $407 + 76 - 561 - 81 + 975 - 57 = ?$
5. $12568 + 11280 - 20589 + 689 = ?$

Directions for questions 6 to 10: In each of the questions, there are four parts numbered (A), (B), (C) and (D) of which three are exactly equal. Mark the number of that part which is not equal to the remaining three parts as the answer.

6. $(3050 \div 25 - 2) \div 15 + 50 \times 60 \div 300 \times 5 - 30 =$
(A)
 $210 \div 14 + 5 - 16 + 50 \div 25 + 70 \div 5 = 16 \times 12 +$
(B)
 $100 \div 10 + 30 \div 2 - 197 = (25 \times 12 - 150 \times 2 \div 3) \div$
(C) (D)
 $50 + 16$
7. $12 \times 28 \div 36 - 42 + 46 \div 12 + 257 \div 6 = 34 \times 17 \div$
(A)
 $68 + 14 - 32 \div 96 - 49 \div 6 = 12 \times 15 - 125 \div 75$
(B) (C)
 $+15 - 21 \div 63 - 179 = 22 \times 24 \div 52 \times 26 + 27 \div 54$
(D)
 $- 219$
8. $320 - 145 - 90 = 420 - (245 - 90) = 220 - 50 - 90 =$
(A) (B) (C)
 $280 - (105 + 90)$
(D)
9. $2/3 + 3/4 - 1/2 = 5/12 + 1/2 = 7/6 - 3/12 - 1/12 =$
(A) (B) (C)
 $13/12 - 1/6$
(D)
10. $4\% \text{ of } 40 + 400\% \text{ of } 4 + 40\% \text{ of } 1 = 1.8\% \text{ of } 1000$
(A) (B)
 $= 2\% \text{ of } 100 + 200\% \text{ of } 8 = 23\% \text{ of } 20 + 12\% \text{ of } 120$
(C) (D)

Questions 11 to 15: Multiplications/Squares

11. 9819×181
12. $324^2 + 576^2 + 324 \times 576$
13. 786×224
14. 156×166
15. 172×179

Questions 16 to 20: Percentages

16. Find 80% of 737?
17. Find 72% of 432?
18. Find 65% of 678?
19. Find 95% of 870?
20. Find 53% of 943?

Questions 21 to 25: Fractions

21. Arrange the following fractions in descending order.
 $\frac{31}{131}, \frac{51}{151}, \frac{61}{161}, \frac{71}{171}, \frac{81}{181}$
22. Arrange the following in descending order.
 $\frac{32}{39}, \frac{48}{57}, \frac{39}{47}$
23. Arrange the following fractions in ascending order.
 $\frac{22}{35}, \frac{28}{45}, \frac{17}{27}$
24. $\frac{27}{66} + \frac{31}{102} =$
25. $\left(\frac{9 \cdot 95^2 + 6 \cdot 25^2}{1 \cdot 85^2 + 8 \cdot 10^2} \right) + \left(\frac{3}{4} \right) - \frac{5}{6} =$

Speed Enhancement Test - 25
(Recommended time: 15 min.)

Questions 1 to 5: Multiplications

1. $4182 \times 2814 = ?$
2. $88888 \times 5555 = ?$
3. $547 \times 126 = ?$
4. $748 \times 528 = ?$
5. $128 \times 74 = ?$

Questions 6 to 10: Find the HCF and LCM of the given set of numbers.

6. 151, 181, 191
7. 779, 893, 247
8. 1904, 1955, 2057
9. 1002, 2018, 3020
10. 161, 301, 1204

Questions 11 to 15: Percentages.

11. 37% of 509 = ?
12. 98% of 637 = ?
13. 46% of 368 = ?
14. What percentage of 154 is 73.92 ?
15. What percentage of 271 is 62.33 ?

Questions 16 to 20: Additions

16. $2342 + 3652 + 7465 + 6328 + 8157 = ?$

17. $4215 - 612 + 3649 - 824 + 7168 = ?$
18. $18181818 + 181818 + 1818 + 18 = ?$
19. $2184 + 4567 + 3546 + 2468 + 7531 = ?$
20. $412 + 342 + 564 + 827 + 615 = ?$

Directions for questions 21 to 25: From the choices, select the one which gives an appropriate value to replace the question mark (?).

21. $\frac{20 \times 20 \times 20 \times 20 - 20 \times 20}{483 + 14 + 12} = ?$
(A) 312.55 (B) 313.55
(C) 310.55 (D) 310.66
22. $\sqrt{2.3689} = ?$
(A) 1.549 (B) 1.339
(C) 1.449 (D) 1.539
23. $\left(\frac{\sqrt{144} \times \sqrt{25}}{\sqrt[3]{64} \times \sqrt{64}} \right)$ of $4^3 + 3^2 - 5^3 = ?$
(A) $\frac{10}{8}$ (B) 4 (C) $\frac{-195}{2}$ (D) 14
24. $384 \div 4$ of 4 of $8 + 2^3 \times 10 = ?$
(A) 83 (B) 82 (C) 84 (D) 4
25. $864 \div 9$ of $7 \div \frac{1}{5} \times 2 - 3 + 10 = ?$
(A) $\frac{1009}{7}$ (B) 24 (C) $\frac{1011}{7}$ (D) 26

Speed Enhancement Test - 26
(Recommended time : 15 min.)

Questions 1 to 5: Fractions

1. $\frac{31}{68} + \frac{17}{52} + \frac{43}{78} - \frac{21}{34} = ?$
2. $\frac{4}{55} - \frac{7}{45} - \frac{9}{66} + \frac{2}{9} = ?$
3. $8\frac{1}{9} - 7\frac{1}{4} + 2\frac{1}{18} + 1\frac{1}{36} = ?$
4. $\frac{5}{62} - \frac{9}{93} + \frac{6}{155} + \frac{1}{12}$
5. $\frac{1}{36} + \frac{7}{60} + \frac{5}{72} = ?$

Questions 6 to 10: Additions/Subtractions

6. $3425 + 564 + 6512 + 7415 + 1057 = ?$
7. $642 + 42 + 564 - 748 - 372 - 91 = ?$
8. $6217 + 7384 + 9246 - 1636 - 8247 = ?$
9. $12624 + 15285 - 16234 + 90724 + 16385 = ?$
10. $387 + 643 + 738 - 924 - 848 + 523 = ?$

Questions 11 to 15: Percentages

11. 27.775% of 4500 = ?
12. 41.66% of 2436 = ?

13. 698.65 is what percentage of 2409? (Express as integer)

14. 32 is what percentage of 224?

15. 95 is approximately what percentage of 3041?

Questions 16 to 20: Find the LCM and HCF of the following numbers.

		LCM	GCD
16.	48, 96, 72		
17.	21, 168, 196		
18.	42, 48, 36		
19.	63, 36, 30		
20.	64, 72, 48		

Questions 21 to 25: Multiplications

21. $9983 \times 984 = ?$
22. $432 \times 189 = ?$
23. $464 \times 446 = ?$
24. $287 \times 427 = ?$
25. $813 \times 719 = ?$

Speed Enhancement Test - 27
(Recommended time : 15 min.)

Directions for questions 1 to 5: From the choices, select the one which gives an appropriate value to replace the question mark (?).

1. $\frac{3}{5}$ of $\left\{ \left(48 \div 36 \div 9 \times \frac{1}{6} \right) + \frac{1}{3} \right\} = ?$

2. $\frac{4}{45}$ of $\frac{3}{28}$ of $\frac{180}{9}$ of $\frac{392}{15} \left\{ \left(\frac{36}{7} - \frac{25}{7} \right) + \frac{1}{7} \right\} = ?$

3. $\frac{12}{17}$ of $\frac{51}{72} \left\{ \frac{48}{9} \div \left(\frac{2}{9} - \frac{1}{18} \right) \right\} + \frac{8}{7} = ?$

4. $\frac{9}{16}$ of $\frac{64}{81}$ of $\{ 9 \times 8 - 6 \times 6 \} + \left(5 \times 6 - \frac{1}{4} \text{ of } 96 \div 12 \right) = ?$

5. $\frac{25}{19} \div \frac{625}{152} \left\{ \frac{4}{7} \times \frac{28}{32} + \left(\frac{1}{4} + \frac{3}{6} \right) \right\} = ?$

Questions 6 to 10: Percentages

6. 51.92% of 520 = ?

7. 16.75% of 5680 = ?

8. $10\frac{10}{17}\%$ of 68.34 = ?

9. What percentage of 432.1 is 129.6?
(Express your answer to the nearest integer)

10. 46.44% of 729 = ? (Express your answer to the nearest integer)

Questions 11 to 15: Multiplications

11. $2652 \times 2658 = ?$

12. $735 \times 609 = ?$

13. $556 \times 638 = ?$

14. $734 \times 274 = ?$

15. 9728×10272

Questions 16 to 20: Fractions:

16. $2\frac{1}{3} + 3\frac{1}{6} - 4\frac{1}{9} + 4\frac{1}{15} = ?$

17. $\frac{5}{22} - \frac{1}{176} + \frac{1}{132} = ?$

18. $\frac{4}{7} + 3\frac{1}{3} - \frac{1}{21} - \frac{2}{3} = ?$

19. $\frac{5}{14} + \frac{3}{28} + \frac{9}{56} = ?$

20. $\frac{2}{15} + \frac{9}{60} - \frac{4}{135} = ?$

Questions 21 to 25: Additions/Subtractions

21. $374 + 923 + 884 + 423 + 179 = ?$

22. $1584 + 1975 - 2364 - 1848 + 6797 = ?$

23. $56789 + 12345 + 98765 - 87654 = ?$

24. $358 + 457 - 522 + 297 - 122 = ?$

25. $6420 + 7323 - 4566 + 5417 - 3179 = ?$

Speed Enhancement Test - 28
(Recommended time : 15 min.)

Questions 1 to 5: Find the HCF and LCM of the following numbers.

		HCF	LCM
1.	72, 48, 54		
2.	91, 77, 49		
3.	117, 104, 130		
4.	432, 504, 720		
5.	448, 1024, 768		

Questions 6 to 10: Multiplications

6. $871 \times 178 = ?$
7. $2025 \times 3025 = ?$
8. $1225 \times 7750 = ?$
9. $299 \times 899 = ?$
10. $556 \times 655 = ?$

Questions 11 to 15: Additions/Subtractions

11. $3781 - 6321 + 8163 - 3908 + 1680 = ?$
12. $8163 - 3684 + 4192 - 8649 + 1364 = ?$
13. $34574 - 12360 + 41674 - 56730 + 38741 = ?$
14. $8163 - 13270 + 698 + 4986 = ?$
15. $65888 - 13739 + 80560 - 70061 = ?$

Questions 16 to 20: Miscellaneous

16. P, Q, R, S and T are single digit whole numbers. If $(PQ)^2 = RSTQ$, which of the following can be the value of Q if RS is a perfect square?
(A) 5
(B) 1
(C) 0
(D) More than one of the above
17. P, Q, R and S are single digit natural numbers. If $(PQ)^2 = SRS$ and $R = 2S$, find all the possible value of S?
18. 123456×11111 has the left most digit equal to which of the following?
(A) 1 (B) 2 (C) 3 (D) 4
19. A, B, C, D and E are single digit natural numbers. Find the sum of all values of CD if $(AB) \times (CD) = EEE$ and $AB > CD$ and AB as well as CD are less than 50.
20. Find the approximate number of thousands in the product of 333 and 9180.

Questions 21 to 25: Percentages

21. 144.89 is what percentage of 414?
22. 22.55% of 8877 = ?
23. 31.31% of 3100 = ?
24. 27% of 1296 = ?
25. 164% of 5672 = ?

Speed Enhancement Test - 29
(Recommended time : 15 min.)

Questions 1 to 5: Additions/Subtractions

1. $2967 - 5861 + 2346 + 3184 = ?$
2. $86003 + 3749 - 41078 + 3851 - 2136 = ?$
3. $5671 - 2136 - 2449 - 4167 = ?$
4. $5784 - 8448 + 9146 - 4138 = ?$
5. $48936 + 36849 - 63788 + 13526 + 21673 = ?$

Directions for questions 6 to 10: In each question, three expressions (denoted by (A), (B), (C) and (D)) separated by "=" sign are given. Three of the expressions are equal. The one that is not equal to the other three is to be marked as your answer choice.

6. $575 \div 23 - 14 \times 12 + 256 - 23$
(A)
 $= 17 \times 18 - 14 \times 15 + 96 - 204 \div 2$
(B)
 $= 65 + 153 \div 3 \times 4 - 512 + 333$
(C)
 $= 25 \times 6 - 210 \div 5 + 62 - 90$
(D)
7. $55 \times 6 - 11 \times 22 \div 44 \times 36 + 13$
(A)
 $= (45 + 33 \div 11) \times 3 + 72 \times 5 - 359$
(B)
 $= 144 \div 3 + 96 - 29 \times 5 + 140$
(C)
 $= 36 + 63 + 193 - 43 \times 5 + 204 \div 3$
(D)
8. $22 - 158 + 260 \div 5 + 26 \times 3 + 12$
(A)
 $= 666 - 333 + 999 \div 9 - 88 \times 5$
(B)
 $= 840 + 650 - 12 \times 8 \div 72 \times 96 - 1356$
(C)
 $= 2112 \div 16 + 128 \times 3 - 170 \times 3$
(D)
9. $166 \times 4 - 52 \times 5 + 232 \div 8 - 4800 \div 12$
(A)
 $= 112 \div 16 \times 49 - 295 \div 5 - 251$
(B)
 $= 34 \times 6 - 154 - 468 \div 26 + 33$
(C)
 $= (1855 \div 53 + 172) \div 3 - 108 \div 3$
(D)
10. $(232 \times 6 \div 12 - 46) \div 10 + 10$
(A)
 $= (109 + 115) \div 16 \times 6 - 350 \div 5$
(B)
 $= ((125 + 378) - 2750 \div 22 - 300) \div 6 + 1$
(C)
 $= 360 \div 18 + 80 - 43 \times 3 + 43$
(D)

Questions 11 to 15: Multiplications

11. $1012 \times 984 = ?$
12. $991 \times 983 = ?$
13. $3725 \times 3775 = ?$
14. $813 \times 887 = ?$
15. $284 \times 516 = ?$

Questions 16 to 20: Percentages

16. 68.2% of 687 = ?
17. 154.5% of 618 = ?
18. 83.9% of 539 = ?
19. 46.8% of 1184 = ?
20. 18.4% of 184 = ?

Directions for questions 21 to 25: From the choices, select the one which gives an approximate/appropriate value to replace the question mark(?)

21. $\frac{124}{284} + \frac{151}{144} = ?$
(A) 1.5852 (B) 1.4852
(C) 1.4952 (D) 14862
22. $\frac{12}{24} = \frac{?}{44}$
(A) 12 (B) 55 (C) 22 (D) 66
23. If $a = 4/5$, $b = 6/7$ and $c = 2/3$, then the ascending order of a, b and c is _____.
(A) abc (B) cab (C) bca (D) cba
24. $\frac{5}{122} \times \frac{4}{30} \times \sqrt{25} \div \frac{5}{2} = ?$
(A) $\frac{2}{185}$ (B) $\frac{2}{181}$ (C) $\frac{1}{183}$ (D) $\frac{2}{183}$
25. If $a = \frac{6}{31}$, $b = \frac{4}{23}$ and $c = \frac{13}{77}$, then the descending order of a, b and c is _____.
(A) abc (B) cab (C) bca (D) cba

Speed Enhancement Test - 30
(Recommended time : 15 min.)

Questions 1 to 5: Percentages

1. 71.5% of 2960 =
2. 3.125% of 2576 =
3. 75 is what percentage of 248? (to the nearest integer)
4. 72 is what percentage of 456 ?
5. Find the value of 112.5% of 1100.

Questions 6 to 10: Find the ten's digit of the following products.

6. $819 \times 918 =$
7. $172 \times 127 =$
8. $432 \times 342 =$
9. $1158 \times 32 =$
10. $991 \times 994 =$

Directions for questions 11 to 15: From the choices, select the one which gives an appropriate value to replace the question mark (?).

11. $\left\{ \frac{32}{17} \text{ of } 40\% \text{ of } 340 \left[\frac{3}{8} + \frac{5}{16} \right] \right\} - \frac{1}{6} = ?$
 (A) $175 \frac{5}{6}$ (B) $167 \frac{2}{3}$
 (C) $523 \frac{1}{2}$ (D) $237 \frac{2}{5}$
12. $171 \div 19 \times 15 + 1623 - 121 \times 14 = ?$
 (A) 46 (B) 34 (C) 64 (D) 45
13. $2070 \div 230 \times 16 + 2678 - 1824 \times 9 + 360 \div 12 = ?$
 (A) -1264 (B) -13564 (C) 4625 (D) 52143

14. $\frac{5}{8} \text{ of } \left\{ \frac{36}{5} \text{ of } (28 - 16) \div 4 + \frac{1}{5} \right\} = ?$
 (A) 18 (B) $\frac{8}{109}$ (C) $\frac{121}{142}$ (D) $\frac{109}{8}$
15. $\frac{4}{325} \div \frac{8}{65} \left\{ \frac{144}{26} \text{ of } \frac{7}{8} \text{ of } \frac{104}{12} + 728 \right\} = ?$
 (A) 22 (B) 33 (C) 97 (D) 77

Questions 16 to 20: Find the LCM and HCF of the following numbers.

	LCM	HCF
16. 21, 28, 91		
17. 46, 92, 115		
18. 28, 77, 42		
19. 32, 44, 16		
20. 126, 72, 90		

Questions 21 to 25: Additions/Subtractions

21. $5136 - 3249 + 6784 - 2931 = ?$
22. $3547 - 6341 + 8149 - 3671 = ?$
23. $7568 - 213 + 4231 - 264 + 5457 = ?$
24. $121 - 243 + 1214 - 783 = ?$
 (A) 209 (B) 121
 (C) 309 (D) 144
25. $5234 + 1234 - 1325 - ? = -3073$
 (A) 8425 (B) 8025
 (C) 8216 (D) 8325