SET 1

MODEL PRACTICE SET

QUANTITATIVE APTITUDE

Directions (1 – 5) : What should come in place of the question mark (?) in the following questions ?

1. 89% of 541 = ?
   (1) 450.65 (2) 437.72
   (3) 445.67 (4) 481.49
   (5) None of these
2. 1386 ÷ (36 × 0.50) = ?
   (1) 74 (2) 76
   (3) 78 (4) 80
   (5) None of these
3. $17^{17} \times 17^{5} = ?$
   (1) 17^{12} (2) 17^{85}
   (3) 17^{22} (4) 17^{10}
   (5) None of these
4. 9.3 × ? = 523.59
   (1) 56.3 (2) 68.9
   (3) 42.7 (4) 74.8
   (5) None of these
5. 43.34 + 44.33 + 343.43 = ?
   (1) 456.01 (2) 431.1
   (3) 444.33 (4) 428.9
   (5) None of these
6. 338 × 97 – 1835 = ?
   (1) 30951 (2) 31951
   (3) 29951 (4) 32951
   (5) None of these
7. 68.8 × 14.7 × 7.1 = ?
   (1) 7108.565 (2) 7018.665
   (3) 7180.656 (4) 7081.556
   (5) None of these
8. 35% of 411 – ?% of 272 = 84.01
   (1) 42 (2) 36
   (3) 18 (4) 22
   (5) None of these
9. 156 ÷ 6 ÷ 0.65 = ?
   (1) 45 (2) 54
   (3) 38 (4) 61
   (5) None of these
10. $7\frac{3}{4} \div 12\frac{2}{5} = ?$
    (1) $\frac{6}{7}$ (2) $\frac{5}{8}$
    (3) $\frac{7}{8}$ (4) $\frac{6}{11}$
    (5) None of these
11. 16 × ? = 8736 ÷ 6
    (1) 79 (2) 91
    (3) 103 (4) 115
    (5) None of these
12. 10354 – 6815 – 1359 = ?
    (1) 2270 (2) 1940
    (3) 1720 (4) 2190
    (5) None of these
13. 3.7 × 8.2 × 10.8 – 29.921 =?
    (1) 287.951 (2) 307.951
    (3) 297.751 (4) 317.951
    (5) None of these
14. 3596 + 2123 + 5472 = ?
    (1) 11911 (2) 19111
    (3) 11119 (4) 11191
    (5) None of these
15. $\frac{3}{8}$ of $\frac{4}{5}$ of $\frac{5}{6}$ of 1150 = ?
    (1) 287.5 (2) 341.65
    (3) 312.75 (4) 267.95
    (5) None of these
16. $36^3 \times 5^3 - 2400^2 = ?$
    (1) 720 (2) 720000
    (3) 7200 (4) 72000
    (5) None of these
17. ? ÷ 32 × 16 = 284
    (1) 572 (2) 566
    (3) 554 (4) 548
    (5) None of these
18. 837.54 – 426.31 + 164.71 = ?
    (1) 575.94 (2) 545.64
    (3) 595.74 (4) 515.84
    (5) None of these
19. 48096 ÷ $\sqrt{?}$ = 167 × 9
    (1) 1646 (2) 1432
    (3) 1024 (4) 1208
    (5) None of these
20. 3674 ÷ 44 = ?
    (1) 85 (2) 83.5
    (3) 79.75 (4) 73
    (5) None of these
21. 59% of 693 + ? = 630
    (1) 221.13 (2) 234.84
    (3) 256.78 (4) 288.97
    (5) None of these
22. 11256 + 5838 – 623 = ? × 91
    (1) 174 (2) 163
    (3) 196 (4) 181
    (5) None of these
23. 58321 + 69386 = ? + 37098
    (1) 91619
    (2) 90609
    (3) 92609
    (4) 89619
    (5) None of these
24. 1834 + 2458 = ? × 74
    (1) 84 (2) 76
    (3) 58 (4) 62
    (5) None of these
25. $\sqrt{?} + 28 = \sqrt{1681}$
    (1) 13 (2) 225
    (3) 216 (4) 14
    (5) None of these
26. What is the least number to be added to 8200 to make it a perfect square ?
    (1) 81 (2) 100
    (3) 264 (4) 154
    (5) None of these
27. What would be the compound interest on an amount of Rs. 5,500 at the rate of 5 p.c.p.a. after 2 years?
    (1) Rs. 588
    (2) Rs. 645
    (3) Rs. 563.75
    (4) Rs. 545.5
    (5) None of these
28. If $(18)^3$ is subtracted from the square of a number, the answer so obtained is 3577. What is the number ?
    (1) 89 (2) 94
    (3) 101 (4) 107
    (5) None of these
29. The product of two consecutive even numbers is 9408. What is the greater number ?

(1) 94 (2) 102
(3) 104 (4) 98
(5) None of these

30. A car covers a distance of 1204 km in 28 hours. What is the speed of the car ?
(1) 61 kmph
(2) 43 kmph
(3) 56 kmph
(4) Cannot be determined
(5) None of these

31. The owner of a furniture shop charges his customer 29% more than the cost price. If a customer paid Rs. 7,482 for a computer table, then what was the cost price of the computer table?
(1) Rs. 6,000
(2) Rs. 5,700
(3) Rs. 6,250
(4) Rs. 5,675
(5) None of these

32. The average age of a woman and her daughter is 24 years. The ratio of their ages is 3 : 1 respectively. What is the daughter's age?
(1) 12 years (2) 24 years
(3) 36 years (4) 48 years
(5) None of these

33. A canteen requires 42 dozens of apples for a week. How many dozens of apples will it require for 39 days ?
(1) 294 (2) 273
(3) 504 (4) 234
(5) None of these

34. The difference between 71% of a number and 58% of the same number is 299. What is 67% of that number ?
(1) 1608 (2) 1407
(3) 1541 (4) 1474
(5) None of these

35. The average of 5 consecutive odd numbers A, B, C, D and E is 95. What is the product of C and E?
(1) 9215 (2) 9405
(3) 9120 (4) 9603
(5) None of these

36. The cost of 15 cell phones and 10 watches is Rs. 60,675. What is the cost of 3 cell phones and 2 watches?
(1) Rs. 18,745
(2) Rs. 20,225
(3) Rs. 12,135
(4) Cannot be determined
(5) None of these

37. If an amount of Rs. 96,216 is distributed equally amongst 38 persons, how much amount would each person get ?
(1) Rs. 2,253
(2) Rs. 2,523
(3) Rs. 2,352
(4) Rs. 2,532
(5) None of these

38. In an examination it is required to get 447 of the aggregate marks to pass. A student gets 394 marks and is declared failed by 5% marks. What are the maximum aggregate marks a student can get ?
(1) 1140
(2) 1060
(3) 1230
(4) Cannot be determined
(5) None of these

39. Ms. Sanjna deposits an amount of Rs. 41,700 to obtain a simple interest at the rate of 12 p.c.p.a. for 6 years. What total amount will Ms. Sanjna get at the end of 6 years ?
(1) Rs. 71,724
(2) Rs. 30,024
(3) Rs. 56,894
(4) Rs. 43,472
(5) None of these

40. What is 411 times 108 ?
(1) 43488 (2) 44838
(3) 44883 (4) 43848
(5) None of these

41. What **approximate** value should come in place of the question mark (?) in the following question ?
$5811 \div 309 \times (19)^2 = ?$
(1) 9990 (2) 8650
(3) 5430 (4) 7560
(5) 6790

42. If $(49)^2$ is added to the square of a number, the answer so obtained is 9125. What is the number ?
(1) 6724 (2) 95
(3) 4624 (4) 82
(5) None of these

43. What would be the simple interest obtained on an amount of Rs. 9,850 at the rate of 7 p.c.p.a. after 6 years ?
(1) Rs. 3,546 (2) Rs. 4,538
(3) Rs. 4,137 (4) Rs. 3,447
(5) None of these

44. There are 2240 employees in an organisation, out of which 35% got transferred to different places. How many such employees are there who got transferred ?
(1) 784 (2) 1008
(3) 896 (4) 672
(5) None of these

45. Find the average of the following set of scores :
232, 149, 208, 301, 399, 415
(1) 296 (3) 284
(3) 272 (4) 260
(5) None of these

46. Hriday invests Rs. 5,724, which is 18% of his monthly income, in mutual funds. What is his monthly income ?
(1) Rs. 26,700
(2) Rs. 33,450
(3) Rs. 28,560
(4) Rs. 31,800
(5) None of these

47. In an examination Preeti scores a total of 595 marks. What is her **approximate** percentage in the examination ?
(1) 90 (2) 75
(3) 56 (4) 64
(5) 82

48. 51% of a number is 714. What is 28% of that number ?
(1) 351 (2) 378
(3) 392 (4) 364
(5) None of these

49. The total number of students in a school is 6020. If the number of girls in the school is 2800, then what is the respective ratio of the total number of boys to the total number of girls in the school ?
(1) 23 : 20 (2) 8 : 7
(3) 81 : 70 (4) 11 : 13
(5) None of these

50. If the fractions $\frac{2}{5}, \frac{3}{4}, \frac{4}{7}, \frac{5}{8}$ and $\frac{9}{11}$ are arranged in ascending order of their values, which one will be the second ?

(1) $\frac{2}{5}$ (2) $\frac{4}{7}$

(3) $\frac{5}{8}$ (4) $\frac{9}{11}$

(5) None of these

ANSWERS

1. (4)	**2.** (5)	**3.** (3)	**4.** (1)
5. (2)	**6.** (1)	**7.** (3)	**8.** (4)
9. (5)	**10.** (2)	**11.** (2)	**12.** (5)
13. (3)	**14.** (4)	**15.** (1)	**16.** (4)
17. (5)	**18.** (1)	**19.** (3)	**20.** (2)
21. (1)	**22.** (4)	**23.** (2)	**24.** (3)
25. (5)	**26.** (1)	**27.** (3)	**28.** (5)
29. (4)	**30.** (2)	**31.** (5)	**32.** (1)
33. (4)	**34.** (3)	**35.** (2)	**36.** (3)
37. (4)	**38.** (2)	**39.** (1)	**40.** (5)
41. (5)	**42.** (4)	**43.** (3)	**44.** (1)
45. (2)	**46.** (4)	**47.** (5)	**48.** (3)
49. (1)	**50.** (2)		

EXPLANATIONS

1. (4) $? = \frac{89}{100} \times 541 = 481.49$

2. (5) $? = 1386 \div (36 \times 0.50)$

$= 1386 \div (36 \times \frac{1}{2})$

$= 1386 \div 18$

$= \frac{1386}{18} = 77$

3. (3) $? = 17^{17} \times 17^{15}$

$= (17)^{17+5} = 17^{22}$

4. (1) $9.3 \times ? = 523.59$

$\Rightarrow ? = \frac{523.59}{9.3} = 56.3$

5. (2) $? = 43.34 + 44.33 + 343.43$

$= 431.1$

6. (1) $? = 338 \times 97 - 1835$

$= 32786 - 1835$

$= 30951$

7. (3) $? = 68.8 \times 14.7 \times 7.1$

$= 7180.656$

8. (4)

$\frac{35 \times 411}{100} - \frac{? \times 272}{100} = 84.01$

$\Rightarrow 35 \times 411 - ? \times 272 = 84.01 \times 100$

$\Rightarrow 14385 - ? \times 272 = 8401$

$\Rightarrow ? \times 272 = 14385 - 8401 = 5984$

$\Rightarrow ? = \frac{5984}{272} = 22$

9. (5) $? = \frac{156}{6 \times 0.65} = 40$

10. (2) $? = 7\frac{3}{4} \div 12\frac{2}{5}$

$= \frac{31}{4} \div \frac{62}{5} = \frac{31}{4} \times \frac{5}{62} = \frac{5}{8}$

11. (2) $16 \times ? = \frac{8736}{6}$

$\Rightarrow ? = \frac{8736}{6 \times 16} = 91$

12. (5) $? = 10354 - (6815 + 1359)$

$= 10354 - 8174$

$= 2180$

13. (3) $? = 3.7 \times 8.2 \times 10.8 - 29.921$

$= 327.672 - 29.921$

$= 297.751$

14. (4) $? = 3596 + 2123 + 5472$

$= 11191$

15. (1) $? = \frac{3}{8} \times \frac{4}{5} \times \frac{5}{6} \times 1150$

$= 287.5$

16. (4) $? = 36^3 \times 5^3 - 2400^2$

$= 5832000 - 5760000$

$= 72000$

17. (5) $\frac{?}{32} \times 16 = 284$

$\Rightarrow \frac{?}{2} = 284 \Rightarrow ? = 2 \times 284$

$= 568$

18. (1) $? = 837.54 + 164.71 - 426.31$

$= 1002.25 - 426.31$

$= 575.94$

19. (3) $\frac{48096}{\sqrt{?}} = 167 \times 9$

$\Rightarrow \frac{48096}{167 \times 9} = \sqrt{?}$

$\Rightarrow \sqrt{?} = 32$

$\Rightarrow ? = 32 \times 32 = 1024$

20. (2) $? = \frac{3674}{44} = 83.5$

21. (1) $\frac{59 \times 693}{100} + ? = 630$

$\Rightarrow 408.87 + ? = 630$

$\Rightarrow ? = 630 - 408.87 = 221.13$

22. (4) $11256 + 5838 - 623 = ? \times 91$

$\Rightarrow 16471 = ? \times 91$

$\Rightarrow ? = \frac{16471}{91} = 181$

23. (2) $58321 + 69386 = ? + 37098$

$\Rightarrow 127707 = ? + 37098$

$\Rightarrow ? = 127707 - 37098$

$= 90609$

24. (3) $1834 + 2458 = ? \times 74$

$\Rightarrow 4292 = ? \times 74$

$\Rightarrow ? = \frac{4292}{74} = 58$

25. (5) $\sqrt{?} + 28 = \sqrt{1681}$

$\Rightarrow \sqrt{?} + 28 = 41$

$\Rightarrow \sqrt{?} = 41 - 28 = 13$

$\Rightarrow ? = 13 \times 13 = 169$

26. (1) $90^2 < 8200 < 91^2$

$\Rightarrow 8100 < 8200 < 8281$

$\therefore$ Required number

$= 8281 - 8200 = 81$

27. (3) $CI = P\left[\left(1 + \frac{R}{100}\right)^T - 1\right]$

$= 5500\left[\left(1 + \frac{5}{100}\right)^2 - 1\right]$

$= 5500\left[(1.05)^2 - 1\right]$

$= 5500(1.1025 - 1)$

$= 5500 \times 0.1025$

$=$ Rs. 563.75

28. (5) Let the number be x.

According to the question,

$x^2 - 18^3 = 3577$

$\Rightarrow x^2 - 5832 = 3577$

$\Rightarrow x^2 = 5832 + 3577 = 9409$

$\Rightarrow x = \sqrt{9409} = 97$

29. (4) From the given alternatives,
$96 \times 98 = 9408$
$\therefore$ The greater number = 98

30. (2) Speed of car
$= \frac{\text{Distance covered}}{\text{time taken}}$
$= \left(\frac{1204}{28}\right)$ kmph
= 43 kmph

31. (5) Let the cost price of the computer table be Rs. x.
According to the question,
129% of x = 7482
$\Rightarrow \frac{129 \times x}{100} = 7482$
$\Rightarrow x = \frac{7482 \times 100}{129}$
= Rs. 5800

32. (1) Let the age of the woman and her daughter be $3x$ and x years repectively.
According to the question,
$3x + x = 2 \times 24$
$\Rightarrow 4x = 48$
$\Rightarrow x = \frac{48}{4} = 12$
$\therefore$ Daughter's age = 12 years

33. (4) $\because$ For 7 days, apples required are 42 dozens.
$\therefore$ For 39 days, apples required
$= \frac{42}{7} \times 39 = 234$ dozens

34. (3) Let the number be x,
According to the question,
$(71 - 58)$ % of $x = 299$
$\Rightarrow$ 13% of $x = 299$
$\Rightarrow \frac{13 \times x}{100} = 299$
$\Rightarrow x = \frac{299 \times 100}{13} = 2300$
$\therefore$ 67% of $2300 = \frac{67}{100} \times 2300$
= 1541

35. (2) Let five consecutive odd numbers be x, $x+2$, $x+4$, $x+6$ and $x+8$ respectively. According to the question,
$x + x + 2 + x + 4 + x + 6 + x + 8 = 5 \times 95$
$\Rightarrow 5x + 20 = 475$
$\Rightarrow 5x = 475 - 20 = 455$
$\Rightarrow x = \frac{455}{5} = 91$
$\therefore$ A = 91, B = 93, C = 95,
D = 97 and E = 99
$\therefore$ C × E = 95 × 99 = 9405

36. (3) Let the CP of the one cell phone be Rs. x and that of 1 watch be Rs. y.
According to the question,
$15x + 10y = 60675$
Dividing both sides by 5,
$3x + 2y = \frac{60675}{5} = 12135$

37. (4) Amount got by each person
$= \text{Rs.}\left(\frac{96216}{38}\right) = \text{Rs. } 2532$

38. (2) Let the maximum aggregate marks be x.
According to the question,
5% of $x = 447 - 394$
$\Rightarrow \frac{5 \times x}{100} = 53$
$\Rightarrow x = \frac{53 \times 100}{5} = 1060$

39. (1) Simple Interest
$= \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$
$= \frac{41700 \times 12 \times 6}{100}$
= Rs. 30024
Amount received by Sanjana
= Rs. (41700 + 30024)
= Rs. 71724

40. (5) 411 × 108 = 44388

41. (5) ? = 5811 ÷ 309 × 19^2
$= \frac{5811}{309} \times 19 \times 19$
= 6788.9 ≈ 6790

42. (4) Let the number be x.
According to the question,
$x^2 + 49^2 = 9125$
$\Rightarrow x^2 + 2401 = 9125$
$\Rightarrow x^2 = 9125 - 2401 = 6724$
$\therefore x = \sqrt{6724} = 84$

43. (3) SI $= \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$
$= \frac{9850 \times 7 \times 6}{100} = Rs.\ 4137$

44. (1) Number of transferred employees $= \frac{35 \times 2240}{100} = 784$

45. (2) Required average
$= \frac{232 + 149 + 208 + 301 + 399 + 415}{6}$
$= \frac{1704}{6} = 284$

46. (4) Let Hriday's monthly income be Rs. x.
According to the question,
18% of x = 5724
$\Rightarrow x = \frac{5724}{18} \times 100 = \text{Rs. } 31800$

47. (5) Preeti's percentage of marks
$= \frac{595}{730} \times 100 \approx 82$

48. (3) Let the number be x.
$\therefore$ 51% of x = 714
$\Rightarrow \frac{51 \times x}{100} = 714$
$\Rightarrow x = \frac{714 \times 100}{51} = 1400$
$\therefore$ 28% of 1400 $= \frac{28 \times 1400}{100} = 392$

49. (1) Number of students = 6020
Number of girls = 2800
$\therefore$ Number of boys
= 6020 − 2800 = 3220
$\therefore$ Required ratio = 3220 : 2800
= 23 : 20

50. (2) Decimal equivalent of each fraction :
$\frac{2}{5} = 0.4$; $\frac{3}{4} = 0.75$
$\frac{4}{7} = 0.57$; $\frac{5}{8} = 0.625$; $\frac{9}{11} = 0.82$
Clearly,
0.4 < 0.57 < 0.625 < 0.75 < 0.82
or,
$\frac{2}{5} < \frac{4}{7} < \frac{5}{8} < \frac{3}{4} < \frac{9}{11}$
$\therefore$ The second fraction = $\frac{4}{7}$

□□□