

PRACTICE TEST PAPER NO. 1

Mathematical Ability

Q. 1-10. What should come in place of the question mark (?) in the following questions?

1. $(3158 + 4602 + ?) \div 39 = 347$
(1) 5483 (2) 5883
(3) 5783 (4) 5913
(5) None of these
2. $(0.08\% \text{ of } 363 + 0.6\% \text{ of } 241) \times 500 = ?$
(1) 846.2 (2) 868.2
(3) 84.62 (4) 86.82
(5) None of these
3. $\frac{18696}{20853} \times \frac{11916}{28728} = ?$
(1) $\frac{181}{331}$ (2) $\frac{164}{441}$
(3) $\frac{155}{246}$ (4) $\frac{161}{241}$
(5) None of these
4. $3\sqrt{328509} = ?$
(1) 63 (2) 59
(3) 73 (4) 69
(5) None of these
5. $(47045 \div 9.7) + (2035 \div 3.7) = ?$
(1) 5400 (2) 5445
(3) 54 (4) 54.45
(5) None of these
6. $1965 \div \sqrt{17161} \div 3 = ?$
(1) 15 (2) 9
(3) 5 (4) 12
(5) None of these
7. $\sqrt{4225} - \sqrt{1225} + 6 = \sqrt{?}$

- (1) 1156 (2) 1600
(3) 1444 (4) 1296
(5) None of these

8. $(31\% \text{ of } 260) \times ? = 12896$

- (1) 150 (2) 140
(3) 160 (4) 180
(5) None of these

9. $(16\frac{2}{5} - 12\frac{1}{5}) \div 3\frac{4}{81} = ?$

- (1) $1\frac{9}{19}$ (2) $3\frac{2}{19}$
(3) $2\frac{8}{13}$ (4) $1\frac{9}{13}$
(5) None of these

10. $(18)^3 \div ? = 43.2$

- (1) 135 (2) 136
(3) 137 (4) 138
(5) None of these

Q. 11-14. In each of the following number series one of the given numbers is **wrong**. Find out the **wrong** number.

11. 439 778 1456 2812 5624 10948

- (1) 5624 (2) 1456
(3) 778 (4) 2812
(5) None of these

12. 156 468 780 1094 1404 1716

- (1) 468 (2) 1094
(3) 1717 (4) 780
(5) None of these

13. 113 130 164 215 293 368

- (1) 215 (2) 130
(3) 164 (4) 293
(5) None of these

14. 36 54 135 472.15 2126.25 11694.375

- (1) 135 (2) 54
(3) 472.15 (4) 11694.375
(5) None of these

15. The average of four positive integers is 72.5. The highest integer is 117 and the lowest integer is 15. The difference between the remaining two integers is 12. Which is the higher of these two remaining integers?
- (1) 73 (2) 84
 (3) 70 (4) Cannot be determined
 (5) None of these
16. The population of a town is 8500. It increases by 20% in the first year and increases by another 25% in the second year. What would be the population of the town after two years?
- (1) 10950 (2) 12750
 (3) 11950 (4) 12550
 (5) None of these
17. The difference between the simple interest and compound interest obtained on a principal amount at 5 p.c.p.a. after 2 years is Rs. 35. What is the principal amount?
- (1) Rs. 15,000 (2) Rs. 10,000
 (3) Rs. 14,000 (4) Rs. 13,000
 (5) None of these
18. 'A' can complete a piece of work in 12 days. 'A' and 'B' together can complete the same piece of work in 4 days. In how many days can 'B' alone complete the same piece of work?
- (1) 6 days (2) 8 days
 (3) 15 days (4) 18 days
 (5) None of these
19. If $ab = 36$, which of the following proportions is correct?
- (1) $9 : a = 4 : b$ (2) $a : 18 = b : 3$
 (3) $a : 6 = b : 6$ (4) $a : 9 = 4 : b$
 (5) None of these

Q. 20-24. Study the following table carefully and answer the questions given below it.

Number of students from various schools playing various games

GAMES	SCHOOLS				
	A	B	C	D	E
Football	125	250	100	175	250
Basket ball	175	200	195	245	225
Cricket	250	200	225	215	200
Tennis	240	210	200	130	165
Badminton	75	125	55	45	100

20. If 20% of the students playing Football from School 'A', also play Badminton, what would be the total number of students playing Badminton from School 'A'?
- (1) 110 (2) 120

- (3) 95 (4) 100
(5) None of these

21. The number of students playing Basket ball from School 'C' is **approximately** what per cent of the students playing Basket ball from School 'E'?

- (1) 75 (2) 87
(3) 94 (4) 70
(5) 81

22. What is the difference between the average number of students playing Cricket from all the schools and the average number of students playing Tennis from all the schools?

- (1) 31 (2) 26
(3) 29 (4) 33
(5) None of these

23. The number of students playing Football from School 'D' is what per cent of the total number of students playing all the given games from that school? (Rounded off to 2 digits after decimal)

- (1) 20.61 (2) 21.59
(3) 22.60 (4) 20.59
(5) None of these

24. What is the difference between the average number of students playing all the given games from School 'B' and the number of students playing Badminton from the school?

- (1) 72 (2) 65
(3) 78 (4) 69
(5) None of these

Q. 25-29. Study the following graph carefully and answer the questions given below it.



25. In which year is the per cent increase in the profit from that of the previous year the highest?

- (1) 1998 (2) 2000
(3) 2002 (4) 2004
(5) None of these

26. If the expenditure in the year 2003 was Rs. 60 crores, how much was the income in crore Rupees?

- (1) 110 (2) 115
(3) 120 (4) 90
(5) None of these

27. If the income in the year 1999 was a Rs. 60 crores and the expenditure of that year equals the expenditure of the year 2001, what was the income of the company in crore Rupees in the year 2001?

- (1) 75 (2) 60
(3) 55 (4) 65
(5) None of these

28. What is **approximate** per cent increase in the profit in the year 2005 from that of the previous year?

- (1) 12 (2) 4
(3) 7 (4) 15
(5) 20

29. What is the **approximate** per cent of the year 2002, if the income of that year was Rs. 120 crores?

- (1) 51 (2) 47
(3) 63 (4) 85
(5) 71

Q. 30-34. What **approximate** value should come in place of the question mark (?) in the following questions? (You are not expected to calculate the exact value.)

30. $(9615.36 + 1247.18) \div (2435.72 + 1937.92) = ?$

- (1) 4 (2) 9
(3) 2 (4) 7
(5) 8

31. $\sqrt{5646} + \sqrt{3982} - 39 = ?$

- (1) 77 (2) 109
(3) 66 (4) 99
(5) 119

32. $(48 \times 296) \div (19 \times 173) = ?$

- (1) 2 (2) 4
(3) 8 (4) 9
(5) 3

33. $0.5\% \text{ of } 449 \times 8.2\% \text{ of } 674 = ?$

- (1) 124 (2) 139
(3) 146 (4) 115

(5) 100

34. $3784 \div 28 + 538 = ?$

(1) 600

(2) 623

(3) 651

(4) 636

(5) 673

Q. 35-39. Study the following tables carefully and answer the questions given below it.

Number of Adults and Children from various age groups living in various colonies

ADULTS

Age- Groups	Colonies			
	A	B	C	D
21-30	20	28	38	30
31-40	60	65	54	50
41-50	50	48	50	41
51-60	40	40	36	35
61-70	12	15	20	20

CHILDREN

Age- Groups	Colonies			
	A	B	C	D
1-5	10	15	12	11
6-10	15	21	10	16
11-15	21	26	20	18
16-20	16	10	15	8

35. What is the **approximate** difference between the average number of adults from the age-group of 31-40 from all the given colonies and the average number of children from the age-group of 6-10 from all the given colonies?

(1) 42

(2) 35

(3) 48

(4) 39

(5) 31

36. What is the respective ratio of the total number of adults from the age-group of 61-70 from colonies B and C to the total number of children from the age-group of 16-20 from the same colonies?

(1) 9 : 4

(2) 5 : 7

(3) 7 : 3

(4) 5 : 3

(5) None of these

37. The total number of children from colony 'D' is **approximately** what per cent of the total number of adults from the same colony?

(1) 20

(2) 15

(3) 25

(4) 30

(5) 35

38. What is the respective ratio of the total number of members from colony A (including children) to the total number of members from colony B (including children)?

- (1) 61 : 69 (2) 59 : 57
(3) 61 : 67 (4) 59 : 55
(5) None of these

39. The number of children from the age-group of 1-5 from colony C are what per cent of the total number of children from the same age group from all the colonies?

- (1) 20 (2) 15
(3) 30 (4) 35
(5) None of these

Q. 40-44. Read the following information carefully and answer the questions given below it.

One of the total number of 7800 girls in a college, 15% of the total number of girls are good at dancing and 20% of the number of girls good at dancing are also good in studies. 5% of the total number of girls in the college are good at drawing and 10% of the girls good at drawing are also good in studies. 35% of the total number of girls in the college are good at cooking and 20% of the girls good at cooking are also good in studies; also 30% of the girls good at cooking are good at dancing but not good in studies, 10% of the total number of girls in the college are good only at singing. 25% of the total number of girls in the college are good at sports and 16% of the number of girls good at sports are also good in studies. Rest of the girls from the college are only good at studies.

40. How many girls from the college are good at dancing?

- (1) 1755 (2) 1989
(3) 1170 (4) 1898
(5) None of these

41. How many girls from the college are good only at cooking?

- (1) 2730 (2) 2184
(3) 1365 (4) 1545
(5) None of these

42. How many girls from the college are good at drawing?

- (1) 351 (2) 380
(3) 400 (4) 341
(5) None of these

43. How many girls from the college are good at studies?

- (1) 1851 (2) 780
(3) 990 (4) 1911
(5) None of these

44. How many girls from the college are good only at singing?
(1) 780 (2) 750
(3) 700 (4) 800
(5) None of these
45. What is the least number to be added to 920 to make it a perfect square?
(1) 41 (2) 31
(3) 39 (4) 49
(5) None of these
46. The ratio of the number of students studying in schools A,B and C is 5 : 6 : 8 respectively. If the number of students studying in each of the schools is increased by 30%, 25% and 25% respectively, what will be the new ratio of students in schools A,B and C respectively?
(1) 14 :15 : 20 (2) 13 :15 : 20
(3) 13 : 14 :15 (4) 15 : 17 :19
(5) None of these
47. If the numerator of a fraction is increased by 140% and the denominator is increased by 150%, the resultant fraction is $\frac{4}{15}$, what is the original fraction?
(1) $\frac{3}{5}$ (2) $\frac{5}{16}$
(3) $\frac{4}{18}$ (4) $\frac{3}{10}$
(5) None of these
48. On a test consisting 150 questions carrying 1 mark each. Meenal answered 80% of the first 75 questions correctly. What per cent of the other 75 questions does she need to answer correctly to score 60% on the entire exam?
(1) 60 (2) 20
(3) 50 (4) 40
(5) None of these
49. If $16a + 16b = 48$, what is the average of a and b?
(1) 3 (2) 2.5
(3) 1.5 (4) 5
(5) None of these

ANSWERS

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

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