PRACTICE TEST PAPER - 3
Mathematical Ability

Qs. 1-5. What approximate value should come in place of the question –mark (?) in the following questions? (You are no0t expected to calculate the exact value).

1. $6,23,898 \times 99 = ? \times 60,000$

(1) 1000 (2) 1030
(3) 1050 (4) 1065
(5) 1010

2. $\frac{4}{5} \times \frac{3}{7} \div \frac{6}{7} \div \frac{5}{9} = ?$

(1) $\frac{9}{17}$ (2) $\frac{20}{49}$
(3) $\frac{18}{25}$ (4) $\frac{1}{2}$
(5) $\frac{4}{7}$

3. $(399.98)^2 = ?$

(1) 160000 (2) 159999
(3) 1600 (4) 1599
(5) 16000

4. $\sqrt{624.9995} + (4.9989)^2 = ?$

$$\div \frac{1}{4.990865}$$

(1) 6 (2) 50
(3) 10 (4) 125
(5) 15

5. $989.001 + 1.00982 \times 76.792 = ?$

(1) 1000 (2) 1100
(3) 1065 (4) 110
(5) 100

Qs.6-13. What will come in place of question mark (?) in the following questions?

6. $3\sqrt{19683} = ? \times 3$
   (1) 90 (2) 27
   (3) 3 (4) 18
   (5) None of these

7. $(1515)^2 = ? \div 1515$
   (1) 3030 (2) 2295225
   (3) 4485 (4) 5115
   (5) None of these

8. $60 = ?\%of\ 400$
   (1) 6 (2) 12
   (3) 20 (4) 15
   (5) None of these

9. $1400 \times ? = 1050$
   (1) $\frac{1}{4}$ (2) $\frac{3}{4}$
   (3) $\frac{3}{5}$ (4) $\frac{2}{3}$
   (5) None of these

10. 40% of ? = 240
    (1) 60 (2) 6000
    (3) 960 (4) 600
    (5) None of these

11. $35 + 15 \times 1.5 = ?$
    (1) 75 (2) 25.25
    (3) 57.5 (4) 51.5
    (5) None of these

12. $1984 + 523 - ? = 1899$
    (1) 718 (2) 608
    (3) 708 (4) 618
    (5) None of these

13. 3+33+333+3.33 =?
    (1) 362.3 (2) 372.33
    (3) 702.33 (4) 702
    (5) None of these

Qs. 14-20. What will come in place of the question mark (?) in the following number series?

14. 12 14 17 13 8 14 21 13 4 ?
(1) 14 (2) 13
(3) 15 (4) 2
(5) None of these

15. 4 6 12 30 90 315 ?
(1) 945 (2) 1102
(3) 1260 (4) 1417.5
(5) None of these

16. 25 16 ? 4 1
(1) 3 (2) 6
(3) 12 (4) 18
(5) None of these

17. 15 12 17 10 ? 8 21 6
(1) 3 (2) 7
(3) 21 (4) 19
(5) None of these

18. 1 ? 27 64 125
(1) 8 (2) 4
(3) 6 (4) 9
(5) None of these

19. 2 5 7 12 19 31 50 ?
(1) 53 (2) 81
(3) 69 (4) 74
(5) None of these

20. 1 6 36 240 1960 ?
(1) 19660 (2) 3680
(3) 36800 (4) 19600
(5) None of these

Qs. 21-25. In each of the following questions a question is followed by information given in three statements. You have to study the question alongwith the statements and decide, the information given in which of the statement(s) is necessary to answer the question.

21. What is the speed of the train?
I. Train crosses a pole in 10 seconds
II. Length of the train is 240 metres.
III. Train crosses a platform of equal length in 20 seconds.
(1) Only I and II (2) Only II and III
(3) All I, II and III (4) Any two of the three
(5) II and either I or III

22. What is the two digit number?
I. The number obtained by interchanging the digits of the number is greater than the original number by 18.
II. Sum of the two digits of the number is 14.
III. Difference between the two digits of the number is 2.
(1) Any two the three (2) Only I and II
(3) II and either I or III (4) All the three
(5) III and either I or II

23. In how many days can 16 men and 8 women together complete the piece of work?
I. 8 men complete the piece of work in 10 days.
II. 16 women complete the piece of work in 10 days.
III. 5 women take 32 days to complete the piece of work.
(1) Only I and II (2) Only I and III
(3) Only II and III (4) Only I and either II or III
(5) Any two of the three

24. What is the area of the square?
I. Measure of diagonal of the square is given.
II. Measure of one side of square is given.
III. Perimeter of the square is given.
(1) Only II (2) Only III
(3) Only I and III (4) Only II and III
(5) All one of the three

25. What is the rate of interest p.c.p.a ?
I. Simple interest earned per annum is Rs. 5,300.
II. The difference between the compound and simple interest on an amount is Rs. 1,060 at the end of 2 years.
III. An amount doubles itself in 5 years with simple interest.
(1) All the three (2) Only III
(3) Either II or III (4) Only III or I and II
(5) Question cannot be answered even with the information in all three statements

Qs. 26-30. Study the table carefully to answer the questions that follow:
Sale (in crores) of number of units by Six Different Companies over the years.

Year / Company	1997	1998	1999	2000	2001	2002
L	107.0	80.0	28.48	38.0	26.5	36.6
M	175.1	76.0	31.38	43.0	27.5	32.8
N	156.6	66.49	43.7	45.2	19.0	40.12
O	112.4	78.24	56.6	35.1	25.1	25.0
P	95.1	111.8	53.2	48.9	22.5	37.0
Q	192.0	72.18	31.04	42.2	17.0	30.0

26. Number of units sold by Company M in the year 2002 is what per cent of the total number of units sold by all the Companies together in that year? (rounded off to two digits after decimal)
(1) 14.16 (2) 21.48
(3) 16.28 (4) 26.26
(5) None of these

27. Which Company has sold the maximum number of units over the years?
(1) Q (2) M
(3) N (4) P
(5) None of these

28. Which year is the percentage increase/ decrease in number of units sold from the previous year the lowest by Company L?
(1) 2000 (2) 2002
(3) 2001 (4) 1998
(5) None of these

29. What is the **approximate** average number of units sold in the year 1999?
(1) 407300000 (2) 427400000
(3) 42740000 (4) 4073000000
(5) 40730000

30. What is the different between number of units sold by Company O in the year 1997 and the year 2000?
(1) 7730000000 (2) 703000000
(3) 7030000000 (4) 77300000
(5) None of these

Q. 31-35. What should come in place of the question mark (?) in the following questions?

31. 23% of 8040 + 42% of 545 = ? of 3000:
(1) 56.17 (2) 63.54
(3) 71.04 (4) 69.27
(5) None of these

32. $12\frac{1}{3}+10\frac{5}{6}-7\frac{2}{3}-1\frac{4}{7}=?$
(1) $13\frac{13}{14}$ (2) $13\frac{11}{14}$
(3) $11\frac{13}{14}$ (4) $14\frac{11}{13}$
(5) None of these

33. $\sqrt{\sqrt{1024+\sqrt{7921}}}\times 48.5=?$
(1) 586.5 (2) 423.5
(3) 348.5 (4) 521.5
(5) None of these

34. $3^{3.5}\times 21^{2}\times 42^{2.5}\div 2^{2.5}\times 7^{3.5}=21^{?}$
(1) 8 (2) 10
(3) 12.5 (4) 6.5
(5) None of these

35. $(56)^2+(89)^2=(?)^2=(94)^2-1132$
(1) 145 (2) 21025
(3) 135 (4) 24025
(5) None of these

36. In how many different ways can the letters of the word' PADDLED' be arranged?
(1) 910 (2) 2520
(3) 5040 (4) 840
(5) None of these

37. What would be the cost of building a 7 metres wide garden around a circular field with diameter equal to 280 metres, if the cost per sq metre for building the garden is Rs21?
(1) Rs 1,56,242 (2) Rs 2,48,521
(3) Rs 1,11,624 (4) Rs 2,06,118
(5) None of these

38. Vipul decided to donate 5% of his salary. On the day of donation he changed his mind and donated Rs. 1687.50 which was 75% of what he had decided earlier. How much is Vipul's salary?
(1) Rs 37,500 (2) Rs 45,000
(3) Rs 33,750 (4) Cannot be determined
(5) None of these

39. 9 children can complete a piece of work in 360 days. 18 men can complete the same piece of work in 72 days and 12 women can complete the piece of work in 162 days. In how many days can 4 men, 12 women and 10 children together complete the piece of work?
(1) 124 (2) 81
(3) 68 (4) 96
(5) None of these

40. The simple interest accrued on an amount of Rs. 14,800 at the end of three years is Rs. 6,216. What would be the compound interest accrued on the same amount at the same rate in the same period?
(1) Rs 6986.1142 (2) Rs 7042.2014
(3) Rs 7126.8512 (4) Rs 8321.4166
(5) None of these

Qs. 41-45. Study the following table carefully to answer these questions:

Number of Articles (in thousands) Manufactured (M) and Defective (D) by 5 units of a Company over the Years

Year	UNIT									
	I		II		III		IV		V	
	M	D	M	D	M	D	M	D	M	D
1996	53	21	45	12	76	38	56	21	46	18
1997	49	18	32	10	45	24	63	24	36	14
1998	50	18	48	18	55	16	68	30	34	15
1999	65	20	68	15	57	20	54	19	48	12
2000	70	31	72	13	82	22	48	27	58	10
2001	44	15	56	22	38	32	40	15	60	11

41. What is the average number of defective items from Unit II for the given years?
(1) 21,500 (2) 17,000
(3) 12,500 (4) 15,000
(5) None of these

42. What is the ratio between total number of article manufactured by Unit III to that by Unit V for all the years together?
(1) 353 : 282 (2) 282 : 353
(3) 457 : 215 (4) 215 : 457
(5) None of these

43. What was the percentage (rounded off to nearest integer) of defective articles over the number of articles manufactured by all units together in the year 2001?
(1) 42 (2) 40
(3) 37 (4) 33
(5) None of these

44. During which year was the percentage increase/ decrease in manufacture from the previous year the highest for Unit I?
(1) 1998 (2) 2001
(3) 1999 (4) 1997
(5) None of these

45. During which year the largest percentage of articles were defective out of the articles manufactured by Unit IV?
(1) 1996 (2) 1997
(3) 1998 (4) 1999
(5) 2000

Answers

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