Delhi Public School Gandhinagar
Academic Session 2024-25
Mathematics Aptitude Test (MAT)

Total Questions : 50 Guidelines for the Candidate				Time : 1 hr
PATTERN & MARKING SCHEME				
Section	(1) Logical Reasoning	(2) Mathematical Reasoning	(3) Everyday Mathematics	(4) Achievers Section
No.of Questions	14	20	11	5
Marks per Ques.	1	1	1	1
All the questions are compulsory.				

SECTION I: LOGICAL REASONING

1. What number should be added to 752 so that the sum becomes twice of 851?

   (A) 1603   (B) 99   (C) 950   (D) 653

2. If the numerator of the fraction is 2 more than its denominator, than fraction will be written as____

   (A) $\frac{4}{6}$ (B) $\frac{5}{8}$ (C) $\frac{9}{16}$ (D) None of these

3. In a park, Richard noticed that there were 46 legs. How many people and dogs were there?
   (A) 8 people and 4 dogs   (B) 9 people and 7 dogs
   (C) 10 people and 5 dogs   (D) 10 people and 6 dogs

4. Find the odd one out.

   7   9   4   6

   (A)   7   (B)   9   (C) 4   (D) 6

5. Find the missing character. If a certain rule is followed either row- wise or column - wise.

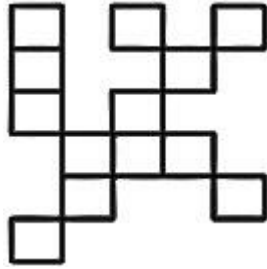| 6	3	8
11	4	12
E	?	D

   (A)   F   (B) G   (C) B   (D) A

6.   What angle is made by the minute hand in one hour?

(A) 90   (B) 270   (C) 360   (D) 180

7. Find the area of the given figure made up of equal squares such that the side of each square is 19 cm:

(A) 5,723 cm²   (B) 3,632 cm²   (C) 4,837 cm²   (D) 4,693 cm²

8. Add the first three common multiples of 4 and 6. Find what least number should be added to it so that it becomes the multiple of II?

(A)   5   (B) 7   (C) 10   (D) 1

9. Length of which one of the following can be measured?

(A)   Line   (B) Point   (C) Line segment   (D) Ray

10. Symbol of the Roman numbers CX is interchanged. By how much value the new Roman number is decreased?

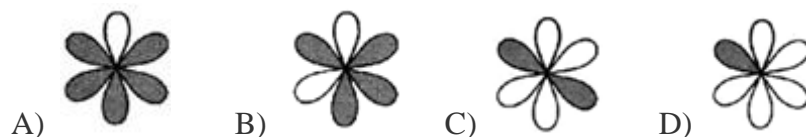(A)   10   (B) 5   (C) 15   (D) 20

11. Complete the series. 2, 9, 18, 29, __ 57.

(A)   40   (B) 41   (C) 42   (D) 43

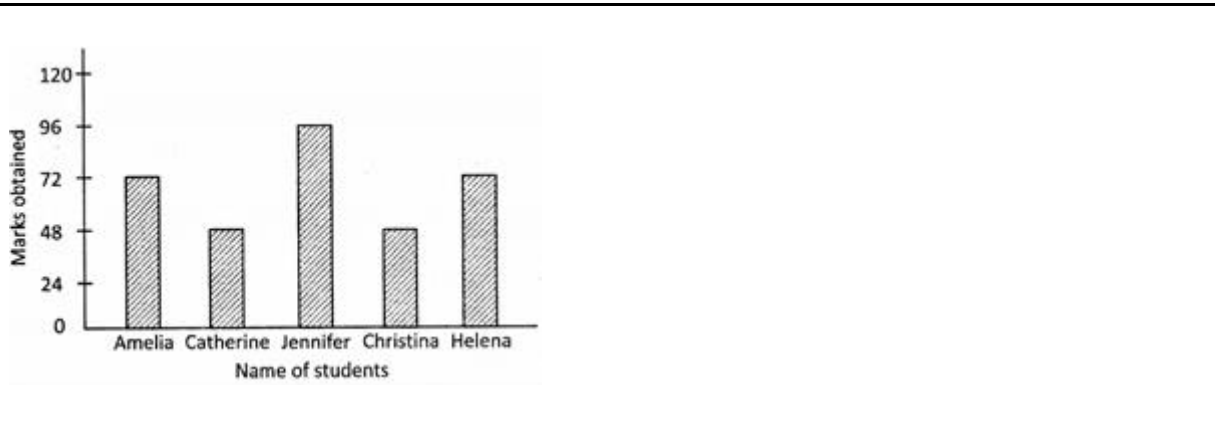**12.** If X = 97 and B = 30, then find the value of 2 (X+Y)

(A) 376   (B) 370   (C) 387   (D) 254

13.   In which of the following figures unshaded part represents unit fraction?

A)   B)   C)   D)

14.

Direction: In the following bar graph marks obtained by five students in an examination has been shown.

Marks obtained by Helena is how much less than the marks obtained by Jennifer?

(A) 25   (B) 30   (C) 24   (D) 20

SECTION II: MATHEMATICAL REASONING

15. An angle which measures more than 180 degree but less than 360 degree is called _____

(a) acute angle   (b) Obtuse angle   (c) reflex angle   (d) straight angle

16. Find the missing number.
    45 x 120 = 0.01 x _____
(a) 545   (b) 5400   (c) 54000   (d) 540000

17. Which of the following has greatest number of factors?
(a) 25   (b) 30   (c) 10   (d) 20

18. The length of a rectangle is thrice its breadth. If the length of the rectangle is 24 cm, find its area.
(a) 198 sq.cm   (b) 144 sq.cm   (c) 192 sq.cm   (d) 164 sq.cm

19. When 156 is subtracted from 3 times of a number, the result is 192. Find the number.
(a) 106   (b) 116   (c) 126   (d) 136

20.   0.0024 + 0.024 + 0.0204 = _____
(a) 0.048   (b) 0.0048   (c) 0.4068   (d) 0.0468

21. HCF of 104 and 128 is _____
(a) 4   (b) 6   (c) 8   (d) None of these

22. 238850 is written in words as
(a) Two lakh thirty eight thousand eight hundred and fifty
(b) Two lakh thirty eight thousand eight hundred and five
(c) Two lakh three thousand eight hundred and five
(d) Two lakh three hundred and eighty-eight and fifty

23. 1456.547 rounding off to the nearest hundredths gives
(a) 1456.5   (b) 1460   (c) 1460.55   (d) 1456.55

24. Which of the following Roman Numeral represents the given sum?
1140 + 869
(a) MMIX   (b) MCXL   (c) MCIX   (d) DXVI

25. 11. How many thousands are there in 9200 x 5?
(a) 460   (b) 406   (c) 4600   (d) 46

26. Ritu knits 848 stitches. If there are 32 stitches in each row of knitting, then how many complete rows have been knitted?
(a) 26   (b) 28   (c) 29   (d) 25

27. Vijay sold 786 cupcakes in each week. How many cupcakes did he sell in 48 weeks?
(a) 37728   (b) 48880   (c) 45324   (d) 43524

28. Varun cycled 63 km 322 m in a week. If he cycled the same distance everyday, then find the distance covered by him in one day.
(a) 6 km 49 m   (b) 4 km 69 m   (c) 9 km 46 m   (d) 9 km 460 m

29. A number is made up of 4 digits. The digit at the thousands place is third multiple of 2. The digit at the hundreds place is half the digit at ones place. The digit at tens place is 1 more than the digit at owns place. If the digit at tens place is 3, then what is the number?
(a) 6432   (b) 6423   (c) 6132   (d) 6234

30. What is the remainder when 432873 is divided by 9?
(a) 0   (b) 2   (c) 4   (d) 1

31. Find the value of 123 thousands + 48 thousands +14 hundreds + 65 tens +
    6 ones
(a) 172436   (b) 184376   (c) 173056   (d) 173456

32. In the addition of 23,125 and 35,624, find the place value of digit '7'.
(a) 0.07   (b) 0.70   (c) 7   (d) 0.37

33. What must be added to 87601 to make it one million?
(a) 901239   (b) 912399   (c) 901249   (d) 902391

34. What is the product of the 8th multiple of 13 and the 6th multiple of 4?
(a) 2028   (b) 3248   (c) 2426   (d) 2496

SECTION III: EVERYDAY MATHEMATICS

35.   In a parking lot,1 out of every 8 cars is blue. What percent of the cars in this lot are blue?

     (A) 1.25 %   (B) 7 %   (C) 9 %   (D) 12.5 %

36. A duck flew at 18 km per hour for 3 hours, then at 15 km per hour for 2 hours. How far did the duck fly in all?

     (A) 69 km   (B) 75 km   (C) 81 km   (D) 84 km

37. Mini took 35 minutes to complete her homework. She finished her homework at 12:05 p.m. What time did she start doing her homework?

     (A) 11:30 pm   (B) 11:30 am   (C) 12:40 am   (D) 12:40 pm

38. Every week Suhana saves ₹ 100 on Monday and ₹ 200 on Friday but spends 150 on Sunday. If this is her total weekly savings, how many weeks would she take to save enough to buy a ₹ 2100 mobile phone?

     (A) 52 weeks   (B) 7 weeks   (C) 42 weeks   (D) 14 weeks

39.   In a park, Richard noticed that there were 46 legs. How many people and dogs were there?
     (A) 8 people and 4 dogs   (B) 9 people and 7 dogs
     (C) 10 people and 5 dogs   (D) 10 people and 6 dogs

40. There are 1482 birdhouses made at a factory each hour. What is the total number of birdhouses made at the factory in 16 hours ?

     (A) 12372   (B) 21372   (C) 23712   (D) 23172

41. The temperature of water in a swimming pool is 53^0 F. Since the freezing point of water is 32^0 F, how many degrees would the temperature of the water have to drop to reach the freezing point ?
     (A) 9^0 F   (B) 21^0 F   (C) 20^0 F   (D) 19^0 F

42. Mrigank travelled 298 km north and Ajit travelled 890 km south from the same point. Find the distance between them now.

    (A) 700 m   (B) 789 m   (C) 989 m (D) 1188 m

43. A is a 3-digit number and B is the number formed by reversing the digits of A. The difference between their digits of ten's place is:

    (A) 9   (B) 1   (C) 0   (D) 2

44. In a school, number of boys is 564 more than that of girls. If there are 2500 girls in the school, find the total number of students in the school.

    (A) 5564   (B) 5560   (C) 5574   (D) 5770

45. Lara bought a second hand car for Rs. 976.75 and her overhead expense was Rs. 50.25. She sold it for Rs 1037.75. What was her gain or loss?

    (A) ₹ 10 Gain   (B) ₹ 10 Loss   (C) ₹ 15 Gain   (D) None of these

SECTION IV: ACHIEVERS SECTION

46. Select the correct match.
(a) 3560- MMMDXL
(b) 2625- MMCDXXV
(c) 2894 – MMDCCCXCIV
(d) 3665 – MMMDCXLV

47. If $\star + \star + \star \star + \star \star = 252$ and $\star = \square$, then find the value of $\square \star$

(a) 64   (b) 48   (c) 60   (d) 54

48. Read the following statements carefuuly.
P: The smallest number that can be divided by the given numbers without leaving any remainder is called the least common multiple.
Q: The greatest number which divides two or more numbers exactly without leaving any remainder is called the highest common factor.
Which of the following options hold?
(a) Only P is true.
(b) Only Q is true
(c) Both P and Q are true
(d) Neither P nor Q is true

49.

Find the value of $\dfrac{Q \times R - S + P}{3}$.

$$
\begin{array}{r}
2\;\boxed{R}\;3\;3\;\boxed{S} \\
128\,)\,3\,7\,5\,4\,6\,3\,8\,(\\
-\,2\,5\,\boxed{P} \\ \hline
1\,1\,9\,4 \\
-\,1\,1\,5\,2 \\ \hline
4\,2\,6 \\
-\,\boxed{Q}\,8\,4 \\ \hline
4\,2\,3 \\
-\,3\,8\,4 \\ \hline
3\,9\,8 \\
-\,3\,8\,4 \\ \hline
1\,4
\end{array}
$$

(a) 9   (b) 4   (c) 3   (d) 10

50.

The value of ▢ is _____.

pen	calculator	eraser	28
pen	eraser	calculator	32
pen	eraser	calculator	32
42	30	20	

(a) 2   (b) 12   (c) 10   (d) 15

ANSWER KEY

Question No.	Answer	Question No.	Answer
1	D	26	A
2	B	27	C
3	A	28	A
4	D	29	A
5	C	30	C
6	D	31	B
7	C	32	B
8	A	33	D
9	B	34	A
10	C	35	D
11	A	36	A
12	C	37	C
13	D	38	D
14	A	39	B
15	D	40	C
16	B	41	D
17	C	42	B
18	A	43	D
19	D	44	B
20	C	45	D
21	A	46	C
22	C	47	D
23	D	48	B
24	D	49	C
25	A	50	B