DELHI PUBLIC SCHOOL, GWALIOR
MODEL TEST PAPER
CLASS – VIII
SUBJECT – MATHEMATICS

Time: 3 hrs.   M.M.: 80

General Instructions

1. *All questions are compulsory.*
2. *The question paper consists of 28 questions divided into 4sections A, B, C and D.*
3. *There is no overall choice. However, internal choice has been provided in 2 questions of 2 marks each, 3 questions of 3 marks each and 2 questions of 4 marks each.*
4. *Use of calculator is prohibited.*

Section-A

1. Find the value of x , if $x – 5 = 0$

2. What is the upper limit of the class interval (250-275).

3. Find the cube root of 64.

4. Name the quadrilateral in which one of the angles is more than 180^0.

Section-B

5. Write four rational numbers less than 2.

6. Solve: $8x + 4 = 3(x–1)$

7. Find the measure of an exterior angle of a regular polygon of 9 sides.

8. A bag has 4 red balls and 2 white balls. A ball is drawn from the bag without looking into the bag. What is the probability of getting a red ball? Is it more or less than getting a white ball?

OR

Numbers 1 to 10 are written on 10 separate slips (one number on one slip), kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of getting 6?
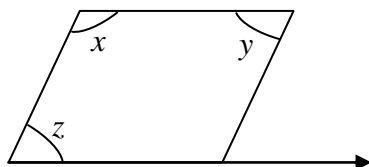
9. Name the quadrilaterals whose:
   (i)   Diagonals bisect each other at 90^0.
   (ii) Opposite sides are equal.

10. Express 121 as the sum of 11 odd numbers.

OR

How many numbers lie between squares of 25 and 26?

Section-C

11.	Find *z, x* and *y* for the following parallelogram

OR

The measures of two adjacent angles of a parallelogram are in the ratio 3:2. Find the measure of each of the angle of the parallelogram.

12.	Represent $\frac{-3}{5}$, $\frac{2}{5}$, $\frac{4}{5}$, $\frac{8}{5}$ on the number line.

13.	Insert 6 rational numbers between $\frac{2}{3}$ & $\frac{4}{5}$.

OR

Evaluate by using properties:
$\frac{-2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$

14.	Three consecutive integers add up to 51. What are these integers?

15.	Construct a quadrilateral ABCD, given that:
BC = 4.5cm, AD = 5.5 cm, CD = 5 cm, diagonal AC = 5.5 cm and diagonal BD = 7 cm.

16.	Three times the reciprocal of a rational number equals 2 times the reciprocal of 19. Find the number.

17.	A survey was made to find the brand of chocolate liked by 540 children.
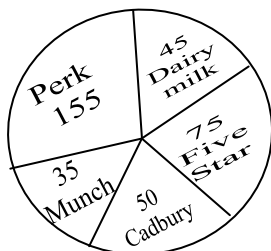
1.	Find the number of children who like Dairy Milk.
2.	How many more children are there who like Perk than Munch?

18	Write a Pythagorean triplet whose smallest member is 8.

OR

A gardener has 2025 plants. He wants to plant these in such a way that the number of rows and the numbers of columns remain same. Find the number of rows and the number of plants in each row.

Section-D

19.	The present age of Sahil's mother is three times the present age of Sahil. After 5 years their ages will add to 66 years. Find their present ages.

OR

The number of boys and girls in a class are in the ratio of 7:5. The number of boys is 8 more than the number of girls. What is the total class strength?

20. Find the values of the unknowns x, y, z in the given parallelogram. State the properties you use to find them.
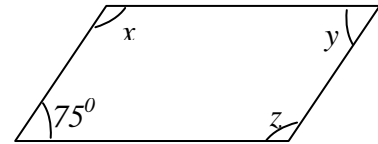
21. Construct a rectangle with adjacent sides of lengths 5 cm and 4 cm.

OR

Construct a quadrilateral ABCD where AB = 4cm, BC = 5cm, CD = 6.5cm and $\angle B = 105^0$ and $\angle C = 80^0$.

22. Draw a Histogram for the following frequency distribution table

Class interval	0-10	10-20	20-30	30-40	40-50	50-60	Total
Frequency	2	10	21	19	7	1	60

23. Find the least number that must be added to 1300 so as to get a perfect square. Also find the square root of the perfect square.

24. Is 53240 a perfect cube? If not, then by which smallest natural number should 53240 be divided so that the quotient is a perfect cube?

25. Find cube root of 8000 by prime factorization method.

26. Find m $\angle$ C in the given fig. if AB $\parallel$ CD.

(I)

(II)
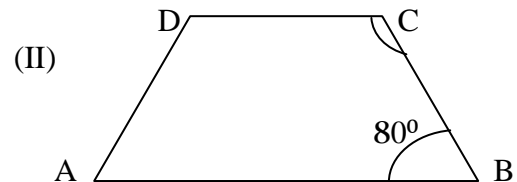
27. There are 500 children in school. For a P.T drill they have to stand in such a manner that the number of rows is equal to number of columns. How many children would be left out in this arrangement?

28. Baichung's father is 26 years younger than Baichung's Grandfather and 29 years older than Baichung. The sum of the years of the ages of all the three is 135 years. What is the age of each one of them?

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