



**DELHI PUBLIC SCHOOL, GWALIOR**  
**MODEL TEST PAPER**  
**CLASS – VII**  
**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 4 sections 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  $\frac{2}{5}$  of 10 litres
2. Write the equation for the statement “the sum of three times  $x$  and 11 is 32”.
3. Find the probability of getting an even number when a die is thrown.
4. Is the sum of any two angles of a triangle always greater than the third angle?

**Section – B**

5. (a) Write a pair of negative integers whose difference gives 8  
(b) Write a negative and a positive integer whose difference is  $-3$
6. Find the value of the following:  
(a)  $(-18) \times (-5) \times (-1)$   
(b)  $[(-36) \div 12] \div 3$
7. A rectangular sheet of paper is  $12\frac{1}{2}$  cm long and  $10\frac{2}{3}$  cm wide. Find its perimeter.

**OR**

If area of a square is  $625m^2$ . Find its side.

8. Solve the following:  
(a)  $2\frac{1}{5} \div 1\frac{1}{5}$   
(b)  $3\frac{1}{4} \times 6$
9. Find the mean of first 5 whole numbers

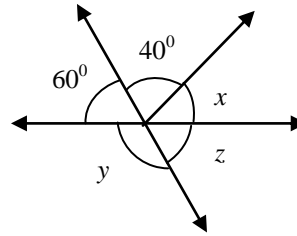
**OR**

Find the mode and median of the given data:  
13 , 16 , 12 , 14 , 19 , 12 , 14 , 13 , 14

10. Write the following statements in the form of equations:



Find the value of  $x$ ,  $y$  and  $z$  in the following figure:



**Section-D**

19. A cement company earns a profit of ₹ 8 per bag of white cement sold and a loss of ₹ 5 per bag of grey cement sold.
- (a) The company sells 3,000 bags of white cement and 5,000 bags of grey cement in a month. What is its profit or loss?
- (b) What is the number of white cement bags it must sell to have neither profit nor loss, if the number of grey bags sold is 6,400 bags?
20. Lipika reads a book for  $1\frac{3}{4}$  hours every day. She reads the entire book in 6 days. How many hours in all were required by her to read the book?

**OR**

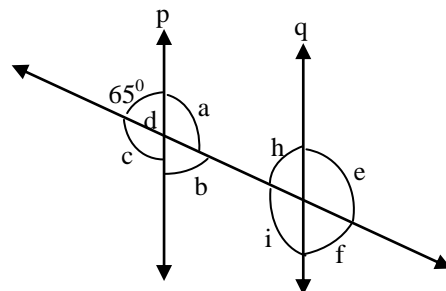
Shyama bought 5kg 300g apples and 3kg 250g mangoes. Sarala bought 4kg 800g oranges and 4kg 150g bananas. Who bought more fruits?

21. Construct two equations for each of the following:
- (i) Starting with  $x = 2$
- (ii) Starting with  $y = -3$
22. Sale of English and Hindi books in the years 1995, 1996, 1997 and 1998 are given below:

Years	1995	1996	1997	1998
English	350	400	450	620
Hindi	500	525	600	650

Draw a double bar graph and answer the following questions:

- (i) In which year was the difference in the sale of the two language books least?
- (ii) About how many books were sold in 1995?
23. In the adjoining figure,  $p \parallel q$ . Find the unknown angles.



24. A tree is broken at a height of 5m from the ground and its tip touches the ground at a distance of 12m from the base of the tree. Find the original height of the tree.

**OR**

Find the perimeter of the rectangle whose length is 40cm and a diagonal is 41cm.

25. The marks (out of 100) obtained by a group of students in a Science test are 85 , 76 , 90 , 85 , 39 , 48 , 56 , 98 , 81 and 75. Find:
- i) The highest and the lowest marks obtained by the students.
  - ii) Range of the marks obtained.
  - iii) Mean marks obtained by the group.
26. Solve the following equations:-
- (a)  $7m + \frac{19}{2} = 13$
  - (b)  $-4(2 + x) = 8$
27. Draw rough sketches for the following:
- (a) In  $\Delta ABC$ , BE is a median
  - (b) In  $\Delta PQR$ , PQ and PR are altitudes of the triangle
  - (c) In  $\Delta XYZ$  , YL is an altitude in the exterior of the triangle.
28. Solve the following:
- (a) Ram's father is 49 years old. He is 4 years older than three times Ram's age. What is Ram's age?
  - (b) Anwar thinks of a number. If he takes away 7 from  $\frac{5}{2}$  of the number, the result is 23, then find the number.

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