

**ST. ANTHONY'S SR. SEC. SCHOOL FATEHGARH CANTT**

**HALF YEARLY EXAMINATION 2020-2021**

**CLASS VIII**

**MATHEMATICS**

**Time:3Hrs**

**M.M:80**

**General Instructions**

- i)All the questions are compulsory.**
- ii)The question paper consists of 33 questions divided into Section A,B,C and D**
- iii)Section A Comprises of 6 Questions of 1 Mark each. Section B comprises of 12 Questions of 2 Marks each. Section C comprises of 10 Questions of 3 marks each. Section D comprises of 5 Questions of 4 Marks each.**

**SECTION A**

- 1.The value of y in the equation  $7y-5=16$  is \_\_\_\_\_.**
- 2.The additive inverse of  $\frac{3}{5}$  is \_\_\_\_\_.**
- 3.A \_\_\_\_\_ is the pictorial representation of data.**
- 4.Name the quadrilaterals whose diagonals are perpendicular bisectors of each other.**
- 5.\_\_\_\_\_ measurements can determine a quadrilateral uniquely.**
- 6.Which is the multiplicative identity for rational numbers?**

**SECTION B**

- 7.Find ten rational numbers between  $\frac{3}{5}$  and  $\frac{3}{4}$ .**
- 8.Three consecutive integers add up to 51. What are these integers ?**
- 9.Explane why a rectangle is a convex quadrilateral ?**
- 10.Solve  $\frac{x}{3} + 1 = \frac{7}{15}$  .**
- 11.Find the measure of each exterior angle of a regular polygon of**
  - (i) 9 sides**
  - (ii) 15 sides .**

12. Find the square root of 144 by repeated subtraction.
13. Construct a square PQRS with PQ=4cm (No need to write the steps).
14. Solve  $8x + 4 = 3(x - 1) + 7$ .
15. The measures of two adjacent angles of a parallelogram are in the ratio 3:7. Find the measures of each of the angles of the parallelogram.
16. Find the smallest square number that is divisible by 4, 9 and 10.
17. When a die is thrown, find the probability of getting  
(i) an even number (ii) a number less than 5.
18. Find the square root of 7744 by prime factorisation.

### SECTION C

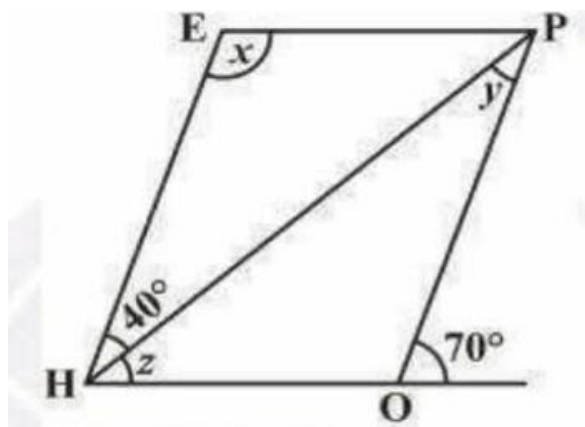
19. Find the smallest whole number by which 2028 should be multiplied so as to get a perfect square. Also find the square root of the new number.
20. The daily wages of 150 workers in a factory are given below.

Daily wages (in Rs.)	100-200	200-300	300-400	400-500	500-600
No. of workers	50	30	35	20	15

Draw a histogram for the data.

21. Solve  $\frac{3t-2}{4} - \frac{2t+3}{3} = \frac{2}{3} - t$ .

22. HOPE is a parallelogram. Find the angle measures  $x$ ,  $y$  and  $z$ . State the properties you use to find them.



23. A bag has 5 Red balls, 6 Blue balls and 9 Green balls. A ball is chosen at random. Find the probability of getting

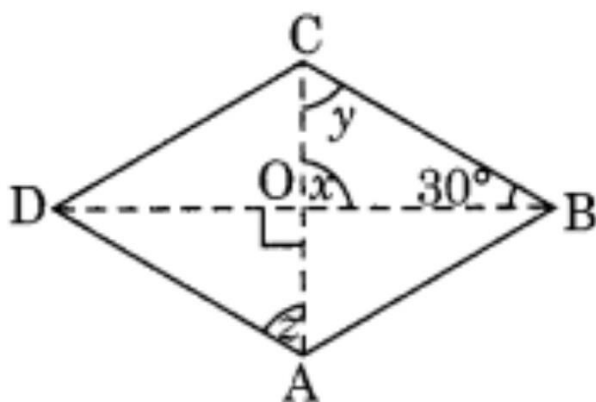
(i) a red ball (ii) a green ball (iii) a non blue ball

24. Represent  $-\frac{3}{4}$ ,  $\frac{1}{4}$  and  $\frac{3}{4}$  on the same number line.

25. Fifteen years from now Ravi's age will be four times his present age. What is Ravi's present age?

26. Construct a Rhombus ABCD with Diagonals AC=5.2cm and BD=6.4cm .

27. ABCD is a the following parallelogram, find the values of the unknowns x, y and z.



28. Construct a frequency distribution table for the data on weights(in kg) of 25 students of a class using intervals 30-35, 35-40 and so on.

40, 38, 33, 48, 60, 53, 31, 46, 34, 36, 49, 41, 55, 49, 65, 42, 44, 47, 38, 39, 67, 64, 54, 36, 42

## SECTION D

29. Using appropriate properties find  $\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$ .

30. Find the Square roots of (i) 5929 (ii) 9604 by prime factorisation.

31. Construct a quadrilateral PQRS with PQ=4cm, QR=3cm, SP=2.5cm, PR=4.5cm and QS=4cm. Also write the steps of constructions.

32.The ages of Anu and raj are in the ratio 5:7.Four years from now the ratio of their ages will be 3:4.Find their present ages.

33.The time spent by a child during a day is given.

Activity	Time
Sleep	8 hours
School	6 hours
Homework	4 hours
Play	2 hours
Others	4 hours
<b>Total</b>	<b>24 hours</b>
<b>Time</b>	

Draw a Pie chart for the given data.

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