

**KENDRIYA VIDYALAYA SEONI-MALWA**

Half Yearly Exam (2020-21)

**Class—VIII**

Time: Allowed-2:00 Hrs

Mathematics

MM: 80

**General Instructions:** *All questions are compulsory.*

**(SECTION -A)**

**Question numbers 1 to 10 carry 1 mark each**

**Choose the correct option**

1) How many diagonals does a pentagon have ?

- a) 4                      b) 5                      c) 6                      d) 7

2) The rational number that does not have a reciprocal

- a) 1                      b) -1                      c) 0                      d) none of these

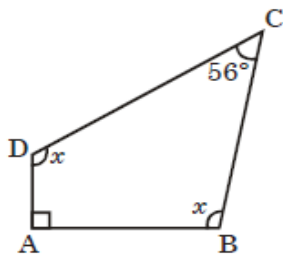
3) The solution of the equation  $\frac{3}{7} + x = \frac{17}{7}$  is

- a)  $x=1$                       b)  $x=2$                       c)  $x=3$                       d)  $x=4$

4) Which of the following are not a perfect cube

- a) 216                      b) 512                      c) 343                      d) 100

5) Value of x in the following figure is



- a) 70                      b) 71                      c) 72                      d) 73

6) When a die is thrown , the probability of getting a number greater than 5 is

- a)  $1/5$                       b)  $1/6$                       c)  $5/6$                       d) 1

7) 676 is square of

- a) 23                      b) 24                      c) 25                      d) 26

8) Which of the following is a property of a Trapezium

- a) both pair of opposite sides are parallel                      b) opposite angles are equal  
c) diagonals are equal                      d) one pair of opposite sides is parallel

9) What will be the one's digit in the square of 52698

- a) 1                      b) 2                      c) 3                      d) 4

- 10) The sum of all the exterior angles of a polygon  
a) 180            b) 360            c) 540            d) 720

**(SECTION -B)**

**Question numbers 11 to 20 carry 1 mark each.**

**Fill in the blanks**

- 11) The pictorial representation of data using symbol is called \_\_\_\_\_
- 12) \_\_\_\_\_ is the property under multiplication used in  $\frac{-13}{15} \times \frac{15}{-13} = 1$
- 13) The distance between highest and lowest value of the observation is called \_\_\_\_\_
- 14) The name of a regular polygon of 4 side is \_\_\_\_\_
- 15) Quadrilaterals whose diagonals are equal are \_\_\_\_\_ and \_\_\_\_\_
- 16) The perfect square number between 30 and 40 is \_\_\_\_\_
- 17) The value of  $\sqrt{7921}$  is \_\_\_\_\_
- 18) If  $(21)^3 = 1728$  , then 1728 is called \_\_\_\_\_
- 19) Discount = Marked Price - \_\_\_\_\_
- 20) The one's digit of the cube of 8888 is \_\_\_\_\_

**(SECTION -C)**

**Question numbers 21 to 30 carry 1 mark each**

**State whether True or False**

- 21) The rational number  $11/17$  lies on the left of zero on the number line
- 22) The sum of all interior angles of a Hexagon is  $540^\circ$
- 23) All Rectangles are not square
- 24) A quadrilateral is constructed when 3 sides and 2 angles are given
- 25) The size of the class interval 25 – 30 is 25
- 26) Squares of even numbers are always even
- 27) 1057 is a perfect square
- 28) If square of a number ends with 4 , then its cube ends with 8
- 29) Profit % =
- 30) If interest is compound half yearly , then double the rate

**(SECTION -D)**

**Question numbers 31 to 40 carry 1 mark each.**

- 31) Find the multiplicative inverse of  $-1 \times \frac{-2}{5}$
- 32) Find rational numbers between
- 33) State the name of a polygon of seven sides
- 34) What is the minimum exterior angle possible for a regular polygon ?
- 35) Write the formula for class mark of a class
- 36) Write the number of outcomes when two coins are tossed together
- 37) How many numbers lie between squares of 14 and 15
- 38) By estimation what is the cube root of 175616
- 39) Write the full form of VAT and GST
- 40) Express 25 as the sum of 5 odd numbers

**(SECTION -E)**

**Question numbers 31 to 40 carry 4 marks each**

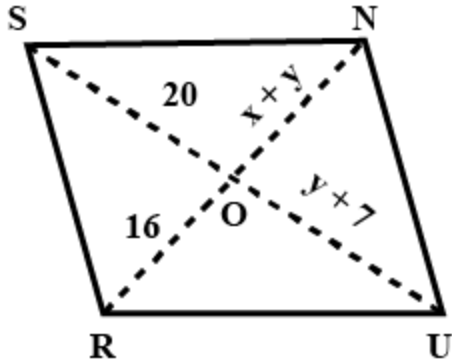
- 41) Using appropriate property ,find

$$\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$$

- 42) Sum of the digits of a two digit number is 9. When we interchange the digits , it is found that the resulting new number is greater than the original number by 27. What is the two digit number ?
- 43) Construct a quadrilateral ABCD when  $AB = 5.5 \text{ cm}$ ,  $BC = 3.7 \text{ cm}$  ,  $\angle A = 60^\circ$  ,  
 $\angle B = 105^\circ$  ,  $\angle D = 90^\circ$
- 44) The number of students in a hostel speaking different languages is given below. Display the data in a pie chart

Language	Hindi	English	Marathi	Tamil	Bengali	Total
Number of students	40	12	9	7	4	72

45) Given RUNS is a parallelogram. Find x and y

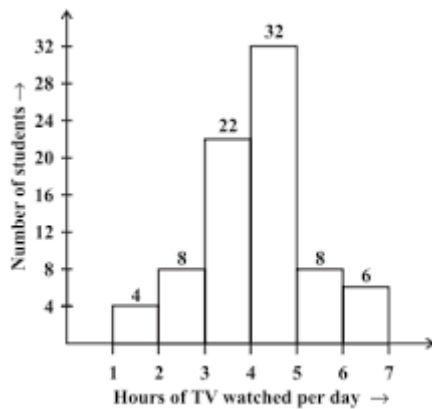


46) Construct a rhombus whose diagonals are 5.2 cm and 6.4 cm long.

47) Find the least number which must be subtracted from 4931 to make a perfect square.

48) Find the amount which Ram will get on Rs 4096, if he gave it for 18 months at  $12\frac{1}{2}\%$  per annum, interest being compounded half yearly.

49) The number of hours for which students of a particular class watched television during holiday is shown through the given graph.



Answer the following:

- For how many hours did the maximum number of students watch TV?
- How many students watched TV for less than 4 hours?
- How many students spent more than 5 hours in watching TV?
- For how many hours did the minimum number of students watch TV?

50) Find the smallest number by which 7803 must be multiplied to obtain a perfect cube.