



P.V.G.'s
Mukhtangan English School & Jr. College,
44, Vidyanagari, Parvati, Pune - 411009.
Summative Written Test - I (2025-26)
Standard - VII

Subject : Mathematics

Marks - 50

Date : 13.10.2025

Time : 8.00 am to 10.00 am

Q1. A) Fill in the blanks by selecting correct alternative and rewrite the statements. (5)

i. $-\frac{5}{4}$ and _____ are each other's multiplicative inverses.

($-\frac{4}{5}$, $\frac{5}{4}$, $\frac{4}{5}$)

ii. $a^{-1} =$ _____.

(a, -a, $\frac{1}{a}$)

iii. The sum of interior angles of pentagon is _____.

(360° , 720° , 540°)

iv. _____ number is neither a prime number nor a composite number.

(1, 2, 3)

v. At 3 o'clock, there is an angle of _____ in between two hands of a clock.

(0° , 90° , 180°)

B) State whether the following statements are True or False and rewrite the statements. (5)

i. The product of two negative integers is a negative integer.

ii. There are innumerable rational numbers between any two rational numbers.

iii. $(-1)^6 = 1$

iv. Circles of equal radii are congruent circles.

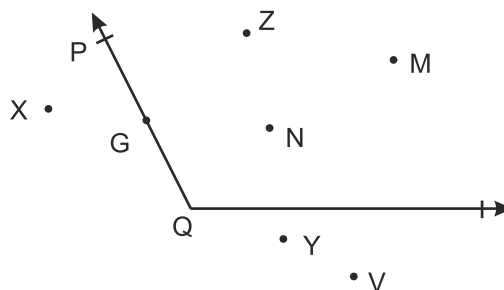
v. We can not draw complementary angles that are not adjacent.

Q.2 Attempt any six of the following questions.

(12)

- Write two rational numbers that lie between $\frac{2}{7}$ and $\frac{6}{7}$.
- Write the rational number $\frac{7}{4}$ in decimal form.
- Find the measure of the supplement of angle 135° .
- Factorise 150 into primes.

- Observe the figure alongside and complete the table for $\angle PQR$



Points in the interior	
Points in the exterior	

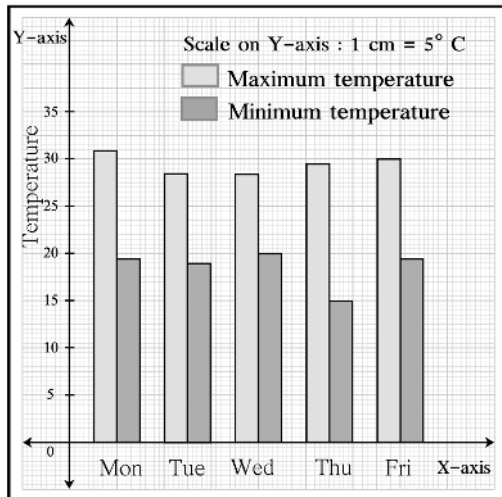
- Construct a $\triangle MAT$, $\ell(MA) = 5.2$ cm, $m\angle A = 80^\circ$, $\ell(AT) = 6$ cm
- Solve.
 - $9 \times (-4)$
 - $(-72) \div (-8)$

Q3. Attempt any five of the following questions.

(15)

- Find LCM of 10, 15, 20
- Carry out following operations on rational numbers.
 - $1\frac{2}{3} + 2\frac{4}{5}$
 - $\frac{13}{36} - \frac{2}{36}$
- $(y-20)^\circ$ and $(y+30)^\circ$ are the measures of complementary angles. Find the measure of each angle.

- iv. Read the joint bar graph and answer the questions below.



- What data is shown on y-axis?
 - Which day had the highest maximum temperature?
 - On Thursday, what is difference between the minimum and maximum temperature?
- v. Find the square root of 144.
- vi. In the right angled $\triangle STU$, hypotenuse $\ell(SU) = 5$ cm, and $\ell(ST) = 4$ cm. Construct the triangle STU .

Q4. Attempt any two of the following questions.

(8)

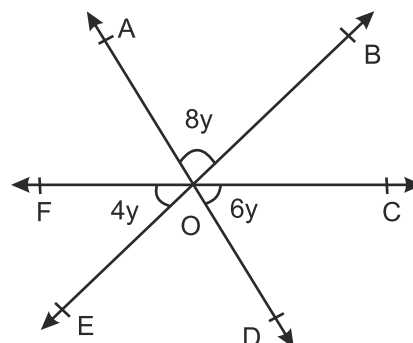
- i. Stating the rules of indices, find the value of the following.

a) $4^7 \div 4^5$

b) $(2^3)^2$

- ii. Simplify $= 80 \div (15 + 8 - 3) + 5$

- iii. Using the measures of the angles given in the figure alongside, Find the measures of the $\angle AOF$, $\angle BOC$, $\angle EOD$



Solution -

In the given figure,

= $\angle FOE = 4y$ (- Vertically opposite angles)

$\angle EOD =$ $= 8y$ (- Vertically opposite angles)

$\angle AOF = \angle COD = 6y$ (- Vertically opposite angles)

$$\angle AOB + \angle BOC = \angle AOC$$

Now, $\angle AOC + \angle COD = \boxed{}$ (Angles in a Linear pair)

$$\therefore 8y + 4y + 6y = 180^\circ$$

$$\therefore \boxed{} = 180^\circ$$

$$\therefore y = \boxed{}$$

Therefore,

$$\angle BOC = \boxed{}$$

$$= 4 \times 10^\circ$$

$$= 40^\circ$$

$$\angle EOD = 8y$$

$$= 8 \times 10^\circ$$

$$= \boxed{}$$

$$\angle AOF = \boxed{}$$

$$= 6 \times 10^\circ$$

$$= 60^\circ$$

Hence, the measures of $\angle BOC$, $\angle EOD$ and $\angle AOF$ are $\boxed{}$, $\boxed{}$, $\boxed{}$ respectively.

Q 5. Attempt the following question.

(5)

The following numbers of votes were cast at 5 polling booths during the Gram Panchayat elections. Draw a joint bar graph for this data.

Booth No.	1	2	3	4	5
Persons					
Men	200	270	560	820	850
Women	700	240	340	640	470

