

GREENLAWNS SCHOOL, WORLI

TERMINAL EXAMINATION: 2025-26

MATHEMATICS

Std: VI

Marks: 80

Date: 16/09/2025

Time: 2 hrs

Answers to this paper must be written on the paper provided separately. You will **not** be allowed to write during the first **10** minutes. This time is to be spent in reading the Question paper.

Question 1

Choose the correct answers to the questions from the given options.

[10]

(Do not copy the question, write the correct answers only.)

- (i) When two lines intersect in such a way that they form 90° with each other, then they are said to be:
(a) Parallel (c) Intersecting
(b) Perpendicular (d) Collinear
- (ii) The speed of 7 m/s converted to km/h is:
(a) 25.2 km/h (c) 1.94 km/h
(b) 7000 km/h (d) 0.7 km/h
- (iii) 50% of ₹5000 is:
(a) ₹ 250 (c) ₹ 2500
(b) ₹ 25 (d) ₹ 25,000
- (iv) $\frac{1}{7} + \frac{4}{14} = ?$
(a) $\frac{5}{14}$ (c) $\frac{3}{14}$
(b) $\frac{5}{7}$ (d) $\frac{3}{7}$
- (v) $6.08 + 60.8 + 0.608 = ?$
(a) 12.768 (c) 18.24
(b) 67.488 (d) 67.488
- (vi) The cardinal number of a set of prime numbers between 5 and 15 is:
(a) 5 (c) 2
(b) 4 (d) 3
- (vii) A straight line touching a circle at one point only is called a:
(a) Chord (c) Tangent
(b) Secant (d) Segment

- (viii) If the angles of a triangle are x° , $2x^\circ$ and $3x^\circ$, then the value of x is:
 (a) 15 (c) 90
 (b) 30 (d) 180
- (ix) Convert $\frac{8}{250}$ into a decimal fraction:
 (a) 0.032 (c) 31.25
 (b) 2000 (d) 242
- (x) The radius of a circle whose diameter is 36 cm is:
 (a) 9 cm (c) 12 cm
 (b) 72 cm (d) 18 cm

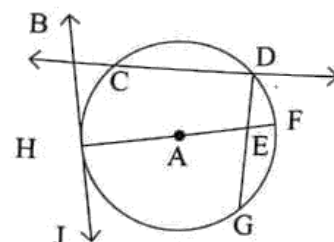
Question 2

[10]

- (i) Simplify: $2\frac{2}{3} \times 3\frac{1}{2} \div 2\frac{4}{9}$
- (ii) Express 0.025 as percent.
- (iii) One angle of a right-angled triangle is 60° . Find the other acute angle.
- (iv) Write each of the following sets in the Roster form:
 a) Squares of the first four whole numbers.
 b) $\{x : x \text{ is a multiple of 4 and is less than 28}\}$
- (v) In a class of 60 children, 30% are girls. How many boys are there?

Question 3

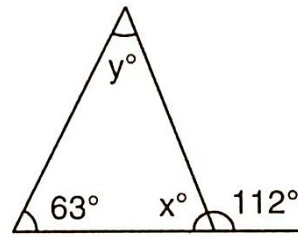
- (i) Arrange $\frac{5}{6}$, $\frac{4}{15}$, $\frac{8}{9}$ and $\frac{1}{3}$ in descending order of magnitude. [3]
- (ii) A train covers a distance of 10 km in 10 minutes. If it takes 6 seconds to pass a pole, then what is the length of the train? [3]
- (iii) Use the figure given below and name the following: [4]
- A chord
 - A secant
 - A tangent
 - If AH is 4 cm, find the length of HF.
 - Draw a circle of radius 3.5 cm. In the circle, draw a chord PQ = 5 cm. Now shade the major segment of the circle.



Question 4

- (i) Find the unknown marked angles in the given figure:

[3]



- (ii) An election was contested between Sunny and John. In all, there were 5650 voters. If 80% of the votes were polled and Sunny got 55% of the votes, then how many votes did John get?

[3]

- (iii) Simplify: $7\frac{1}{3} \div \frac{2}{3}$ of $2\frac{1}{5} + 1\frac{3}{8} \div 2\frac{3}{4} - 1\frac{1}{2}$

[4]

Question 5

- (i) Solve and classify the sets given below into equal or equivalent.

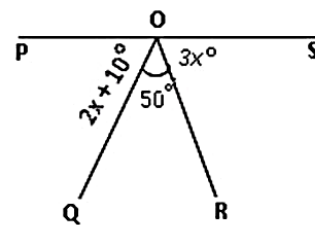
[3]

- a) $X = \{\text{Prime numbers which divide 70 exactly}\}$
 $Y = \{\text{Prime numbers which divide 105 exactly}\}$
- b) $A = \text{Set of letters of the word "FOLLOW"}$
 $B = \text{Set of letters of the word "WOLF"}$
- c) $M = \{40^{\text{th}} \text{ day of a month}\}$
 $N = \{\text{Negative natural numbers}\}$

- (ii) In the adjoining diagram, POS is a straight line. Find the value of x and hence find the values of the following:

[3]

- a) $\angle ROS$
b) $\angle POQ$



- (iii) Do as directed below:

[4]

- a) Subtract the sum of 19.38 and 56.025 from 200.111
b) Divide 257.894 by 0.169

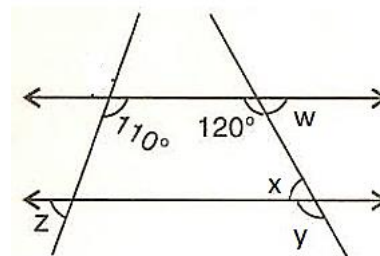
Question 6

- (i) A train covers 108 km in first 2 hours, 36 km in next $\frac{1}{2}$ hour and 90 km in next 2 hours. Find the average speed of the train during the whole journey.

[3]

- (ii) A line segment AP stands at point P of a straight line BC such that $\angle APB = (x+1)^\circ$ [3]
and $\angle APC = (2x-70)^\circ$. Find the value of x and both the angles.

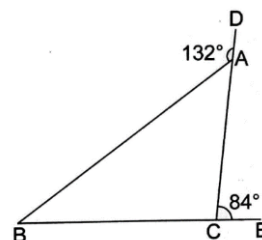
- (iii) In the figure given below, find the angles shown by w, x, y and z by giving appropriate reasons. [4]



Question 7

- (i) Draw a line $PQ = 6$ cm. Now draw a circle with PQ as diameter. Mark a point C on the circumference of the circle. Measure angle PCQ. [3]
- (ii) From a sack of potatoes weighing 120 kg, a merchant sells 6 kg, $5\frac{1}{4}$ kg, $9\frac{1}{2}$ kg and $9\frac{3}{4}$ kg respectively. [3]
(a) How much total quantity did the merchant sell?
(b) How much quantity is still left in the sack?

- (iii) In $\triangle ABC$, side CA is extended to D and side BC is extended to E. [4]
If $\angle ACE = 84^\circ$ and $\angle BAD = 132^\circ$,
find: $\angle ABC$, $\angle ACB$ and $\angle BAC$.



Question 8

- (i) Draw a line segment $XY = 6$ cm. Locate a point Z that is 4 cm from X and 3.5 cm from Y. Through the point Z, draw a perpendicular on to the line segment XY. [3]
- (ii) Using a ruler and a compass, draw a $\triangle ABC$ in which $\angle A = 120^\circ$, $AB=AC=3$ cm. [3]
Measure $\angle B$ and $\angle C$.
- (iii) Using a ruler and a compass, draw a $\triangle PQR$ in which $PR = 6.3$ cm, $\angle P = 90^\circ$, [4]
 $\angle R = 60^\circ$. Measure $\angle Q$ and PQ.
