Std: 8   **Greenlawns High School**   Date: 24.02.2022

Second Semester Examination-mathematics   Marks: 40

Please note:1. All sums must be done on composition sheets.

2. On each side of the composition sheet mention your name, roll no., std., and div.

3. Take clear picture of answer sheets and submit it as pdf.

4. Rename your pdf as your 'Roll no name subject Sem.2' (Example: 23 Akash Jain Math Sem.2)

Q.1) Fill in the blanks :-   **[10]**

(a)   The volume of a rectangular box with dimensions 10 cm, 2.5 cm and 4 cm is _____ cm³

(b)   A trapezium with non-parallel sides equal is called _____.

(c)   If $x + y = 15$ and $x - y = 15$, then value of $x =$ _____.

(d)   If x and y vary inversely, then the value of $z =$ _____.

x	25	z
y	50	125

(e)   A = { x: x = 3n-1, n ∈ N and n < 5} in roster form

A = { ___ , ___ , ___ , ___ }

(f)   Total surface area of a cube with side 8 cm = _____.

(g)
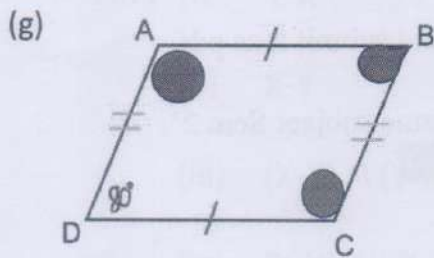

Figure along side is a parallelogram

measure of ∠ A = _____ .

(h)   In the table below, y and z are _____ proportional.

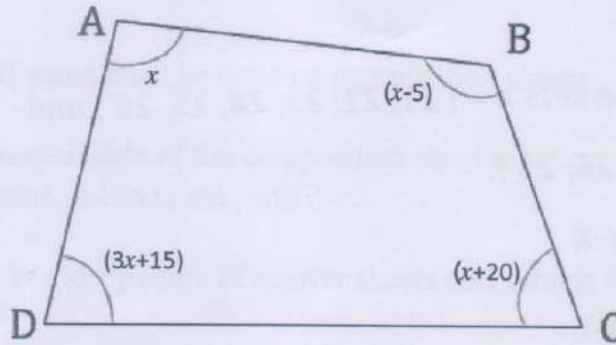| y	9	11	15
z	45	55	75

(i)   **T** is the set of alphabets in the word **MISCELLANEOUS**,

∴ set **T** = _____ and n(T) = _____.

Q.2)

(a)   Cost of 15 calculators is Rs. 8565. Find the cost of 35 calculators.   **[3]**

(b)   Solve simultaneously : $49x - 57y = 172$ and $57x - 49y = 252$.   **[3]**

(c) Find the measure of x and all the angles in the quadrilateral. **[4]**

Q.3)

(a) In parallelogram PQRS, If PQ = 15x − 21 and SR = 6x + 6, find the length of sides PQ . **[3]**

(b) The total surface area of a cube is 486 cm². Find its volume. **[3]**

(c) An army camp of 250 soldiers had provisions for 44 days. A fresh batch of 300 soldiers joined the camp. For how many days will the provision last? **[4]**

Q.4)

(a) A wall of a height 10m was to be built across an open ground. The length of a wall is 4m and thickness of a wall is 24cm. If this wall is to be built up using bricks whose dimensions are 24cm x 8cm x 10cm, how many bricks will be required. **[3]**

(b) The sum of the ages of a father and his son is 55 years.
After 16 years, the father will be twice as old as his son.
Find their present ages. [3]

(c) Consider the sets X = { 21, 22, 23, 24, 25, 26 } and

Y = {22, 24, 26, 28 }. [4]

Find (i) Y-X

    (ii) X-Y

    (iii) (X-Y) ∩ (Y-X)

    (iv) (X-Y) ∪ X

-----------The End------------