SUCCESS KEY TEST SERIES

VIII. (English)

(Unit Test-2 (Ch-3,4/12,13))

Mathematics-

DATE:

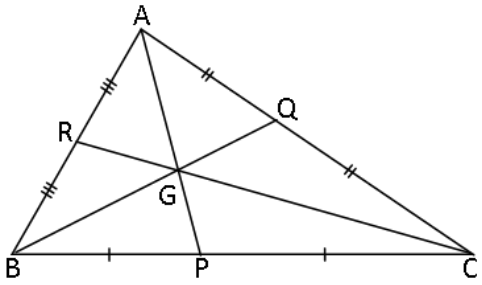
TIME: 1:30 hrs

MARKS: 40

SEAT NO:

Q.1 A) Choose the correct alternative. **(5)**

1)



Point G is the centroid of ΔABC

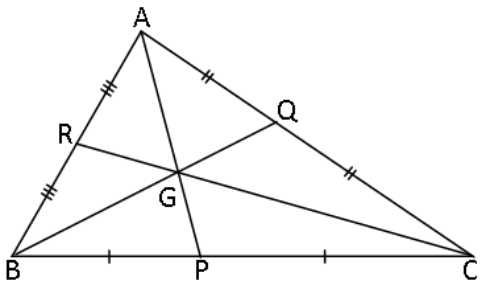
If l (BG) = 6 then l (BQ) = ...

2) If the hypotenuse and a side of a right angled triangle are congruent with the hypotenuse and the corresponding side of the other right angled triangle, then the two triangles are congruent with each other : ..... test.

3) If two sides and the included angle of a triangle are congruent with two corresponding sides and the included angle of the other triangle
then the triangles are congruent with each other : ..... test

4) If three sides of a triangle are congruent with three corresponding sides of the other triangle, then the two triangles are congruent : ..... test.

5)



Point G is the centroid of ΔABC

If l (RG) = 2.5 then l (GC) = ...

B) Answer the following questions **(5)**

1) $(216)^{\frac{7}{3}}$

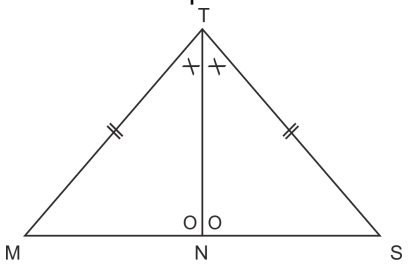
2) Draw an acute angled ΔPQR. Draw all of its attitudes. Name the point of concurrence as 'O'.

3) 2m + 7 = 9

4) Write in the form of nth root of 'a' in each of the following.

$(55)\frac{1}{4}$

5) In each pair of triangles in the following figures, parts bearing identical marks are congruent. State the test and correspondence of vertices by which triangles in each pair are congruent.



Q.2 Attempt the following questions. (Any five) **(10)**

1) Find the cube root of the following numbers.
729

2) Find the cube root of the following numbers.
343

3) Simplify
$\sqrt[3]{0.008}$

4) Draw an isosceles triangle. Draw all of its medians and altitudes. Write your observation about their points of concurrence.

5) 5(x - 3) = 3(x + 2)

6) Find the cube root of the following numbers.
-512

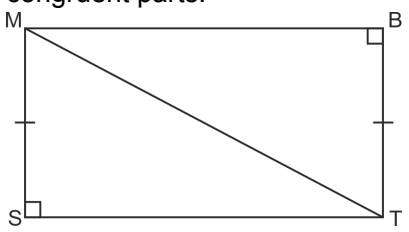
Q.3 Solve the following questions. (Any four) **(12)**

1) Find three consecutive whole numbers whose sum is more than 45 but less than 54.

2) Simply
$\sqrt[3]{\frac{27}{125}}$

3) Draw an obtuse angled ΔLMN. Draws its altitudes and denote the orthocentre by 'O'.

4) In each pair of triangles given below, parts shown by identical marks are congruent. State the test and the one to one correspondence of vertices by which triangles in each pair are congruent and remaining congruent parts.



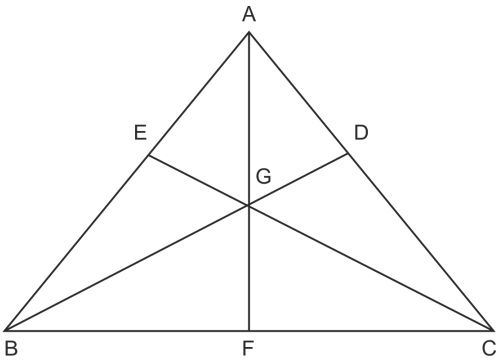
5) The equation is followed by the values of the variable. Decide whether these values are the solutions of that equation.
3 - y = 4, y = -1, 1, 2.

Q.4 Answer the following (Any two) **(8)**

1) Mother is 25 year older than her son. Find son's age if after 8 years ratio of son's age to mother's age will be $\frac{4}{9}$.

2) Sudhir's present age is 5 more than three times the age of Viru. Anil's age is half the age of Sudhir. If the ratio of the sum of Sudhir's and Viru's age to three times Anil's age is 5:6, then find Viru's age.

3)



G is the centroid of triangle ABC. Find ℓ(GD), $l(\overline{EG})$ and ℓ(AG).

ℓ(BG) = 6 cm , ℓ (GC) = 9cm , ℓ(FG) = 5cm