

**FORMATIVE ASSESSMENT - THIRD MID TERM****Max. Marks: 50****Std - VIII****MATHEMATICS****Time: 2 Hrs**

<b>Name of the School:</b> <hr/>	<b>Name of the Student:</b> <hr/>
<b>Place:</b> <hr/>	<b>Roll No.:</b> <hr/>

**PART – I****I. Choose the correct answer:****5 x 1 = 5**

1. \_\_\_\_\_ is data collected by someone other than the user, for individual purposes.
  - a. Primary data
  - b. Secondary data
  - c. Frequency table
2.  $\frac{3}{10}$  is \_\_\_\_\_.
  - a. 3 %
  - b. 30 %
  - c. 300 %
3. Selling Price – Cost price = \_\_\_\_\_
  - a. Loss
  - b. Discount
  - c. Profit
4. The point of concurrence of the three medians in a triangle is called its \_\_\_\_\_.
  - a. Circumcentre
  - b. Orthocentre
  - c. Centroid
5. Sum of angles of triangle is \_\_\_\_\_.
  - a.  $180^\circ$
  - b.  $90^\circ$
  - c.  $360^\circ$

**II. Fill in the blanks:****5 x 1 = 5**

1. The cost price of an article sold for ₹ 625 is \_\_\_\_\_ if the profit is ₹ 175.
2. At 60 km/hr, a distance is covered in 4 hours. The same distance is covered in \_\_\_\_\_ hours at a speed of 40 km/hr.
3. Distance – Time is an example for \_\_\_\_\_ proportion.
4. The medians of a triangle cross each others at \_\_\_\_\_
5. The centroid of a triangle divides each medians in the ratio \_\_\_\_\_.

**III. Match the following:****5 x 1 = 5**

1. Loss %	-	Income earned
2. Discount	-	Distance / Time
3. Direct Tax	-	$\frac{L}{CP} \times 100$
4. Indirect Tax	-	MP – SP
5. Speed	-	GST

**IV. True or False:****5 x 1 = 5**

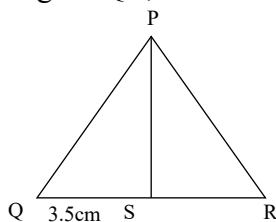
1. The incentre is equidistant from all the vertices of a triangle.
2.  $x$  and  $y$  are said to vary directly if  $\frac{x}{y} = k$ .
3. If  $(3, 4, 5)$  is a Pythagorean triplet, then  $(9, 12, 15)$  is also a Pythagorean triplet.
4. A right triangle can be constructed with the measurements 5 cm, 9 cm and 11 cm.
5. The circumcenter is equidistant from every vertex.

## PART – II

### V. Answer any 5 of the following:

**5 x 2 = 10**

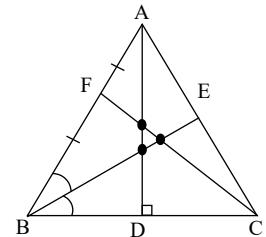
1. A sum of money becomes ₹ 18000 in 2 years and ₹ 40500 in 4 years on compound interest. Find the sum.
2. A train passes through a telegraph post in 9 seconds moving at a speed of 54 km per hour. What is the length of the train?
3. In a right-angled triangle, if one angle is  $47^\circ$ , find the other angle.
4. P, Q, R are the measures of exterior angles of  $\Delta PQR$ . Find  $P + Q + R$ .
5. The cost price of an article is ₹ 4500. It is marked up by 18%. A discount of 10% is offered on the marked price. What is the selling price of the article?
6. If 48 men working 7 hours a day can do a work in 24 days, then in how many days will 28 men working 8 hours a day complete the same work.
7. In triangle PQR, PS is a median and  $QS = 3.5$  cm then find QR?



8. Fill in the blanks:

In the triangle ABC,

- i. The angle bisector is \_\_\_\_\_
- ii. The altitude is \_\_\_\_\_
- iii. The median is \_\_\_\_\_

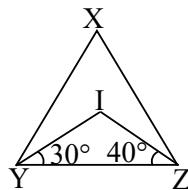


## PART – III

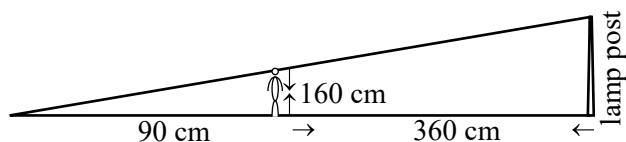
### VI. Answer any 5 of the following:

**5 x 3 = 15**

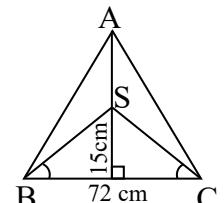
1. A soap factory produces 9600 soaps in 6 days working 15 hours a day. In how many days will it produce 14400 soaps working 3 hours more in a day?
2. A and B can do a piece of work in 12 days. While B and C can do it in 15 days whereas A and C can do it in 20 days. How long would each take to do the same work?
3. If I is the incentre of  $\Delta XYZ$ ,  $\angle IYZ = 30^\circ$  and  $\angle IZY = 40^\circ$  find  $\angle YXZ$



4. A fruit seller bought 20 kg of grapes for ₹ 1500. He sold 12.5 kg at ₹ 80 per kg and 5 kg at ₹ 60 per kg. He had to discard the balance because they were spoiled. What was his overall profit/loss and profit/loss percentage?
5. What is the rate of discount in a 'Buy 3 get 2 free' sale?
6. A girl 160 cm tall is standing 360 cm from a lamp post at night. Her shadow is 90 cm long. Find the height of the lamp post.



7. In  $\Delta ABC$ , S is the circumcentre,  $BC = 72$  cm and  $DS = 15$  cm. Find the radius of its circumcircle.



## PART – IV

### VII. Answer any 1 of the following:

**1 x 5 = 5**

1. Construct the quadrilateral, given that  $PQ = 5$  cm,  $QR = 5.1$  cm,  $RS = 5.8$  cm,  $PS = 4$  cm and  $\angle P = 110^\circ$
2. Construct a square LAMP of side 4 cm. Also find its area.