## SUBJECT: MATHEMATICS CLASS : VIII

# MAX. MARKS : 60 DURATION : 2½ HRS

### **General Instructions:**

- 1. All questions are compulsory.
- 2. Question paper is divided into four sections: Section A consists 8 questions each carry 1 marks, Sections B consists 6 questions each carry 2 marks, Sections C consists 8 questions each carry 3 marks and Sections D consists 4 questions each carry 4 marks

### SECTION – A

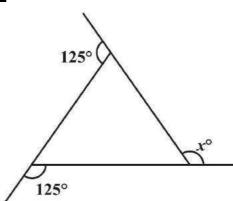
- 1. Write the additive inverse of  $\frac{-7}{10}$ .
- 2. Find the solution of 2x 3 = 7.
- **3.** State the name of a regular polygon of 6 sides.
- 4. Find *x* in the adjoining figure:
- 5. Find the square of the number 32.
- 6. An item marked at Rs 840 is sold for Rs 714. What is the discount %?
- 7. 72% of 25 students are good in mathematics. How many are not good in mathematics?
- **8.** A bag has 4 red balls and 2 yellow balls. (The balls are identical in all respects other than colour). A ball is drawn from the bag without looking into the bag. What is probability of getting a red ball?

### <u>SECTION – B</u>

- 9. Find two rational numbers between  $\frac{3}{5}$  and  $\frac{3}{4}$ .
- 10. Find the number of sides of a regular polygon whose each exterior angle has a measure of 45°.
- 11. Find the cube root of 13824 by prime factorisation method.
- 12. Find the smallest square number which is divisible by each of the numbers 6, 9 and 15.
- **13.** The price of a scooter was Rs 34,000 last year. It has increased by 20% this year. What is the price now?
- 14. The weekly wages (in Rs) of 30 workers in a factory are.

830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840

Using tally marks make a frequency table with intervals as 800-810, 810-820 and so on.

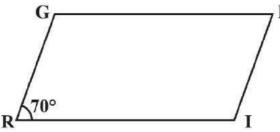


#### SECTION – C

- **15.** Represent these numbers on the number line:  $(i)\frac{7}{4}$   $(ii)\frac{-5}{6}$   $(iii)\frac{3}{5}$
- **16.** Construct a quadrilateral PQRS where PQ = 4 cm,QR = 6 cm, RS = 5 cm, PS = 5.5 cm and PR = 7 cm.
- 17. Find CI on Rs 12600 for 2 years at 10% per annum compounded annually.

**18.** Solve:  $\frac{x+1}{2x+3} = \frac{3}{8}$ 

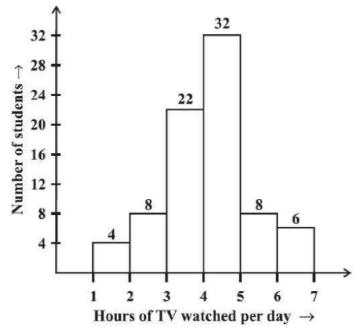
- **19.** Parikshit makes a cuboid of plasticine of sides 5 cm, 2 cm, 5 cm. How many such cuboids will he need to form a cube?
- **20.** In a parallelogram RING, (see below Figure) if  $m \ge R = 70^\circ$ , find all the other angles.



**21.** The number of hours for which students of a particular class watched television during holidays is shown through the given graph.

Answer the following.

- (i) For how many hours did the maximum number of students watch TV?
- (ii) How many students watched TV for less than 4 hours?
- (iii) How many students spent more than 5 hours in watching TV?



**22.** 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.

### <u>SECTION – D</u>

- **23.** The digits of a two-digit number differ by 3. If the digits are interchanged, and the resulting number is added to the original number, we get 143. What can be the original number?
- **24.** Construct a quadrilateral ABCD, where AB = 4 cm, BC = 5 cm, CD = 6.5 cm and  $\angle B = 105^{\circ}$  and  $\angle C = 80^{\circ}$ .
- 25. The population of a place increased to 54,000 in 2003 at a rate of 5% per annum
  - (i) Find the population in 2001.
  - (ii) What would be its population in 2005?
  - (iii) Write any two effects of high populations?
- **26.** A group of 360 people were asked to vote for their favourite season from the three seasons rainy, winter and summer.
  - (i) Which season got the most votes?
  - (ii) Find the central angle of each sector.
  - (iii) Draw a pie chart to show this information.

Season	No. of votes
Summer	90
Rainy	120
Winter	150