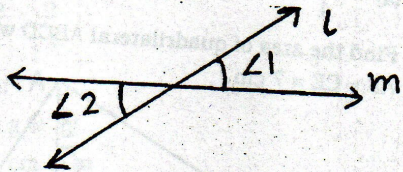**SUBJECT : MATHEMATICS**

Time : 3 hrs

MM : 80

General Instructions :

i)   All questions are compulsory.

ii)   Read all questions very carefully.

iii)   Questions 1 to 10 carry 1 mark each.

iv)   Questions 11 to 18 carry 2 marks each.

v)   Questions 19 to 28 carry 3 marks each.

vi)   Questions 29 to 34 carry 4 marks each.

Q1. Find : 0.75×1000

Q2. In the given figure if $\angle 1 = 60°$, find $\angle 2$.

Q3. Solve : $[(-50) \div 10] \div 5$

Q4. A rectangle is 7 cm long and 4 cm wide. Find its area.

Q5. In a triangle, two angles are 40° and 70°, find the third angle.

Q6. Find the product : $\dfrac{5}{13} \times \left(\dfrac{-39}{25}\right)$

Q7. Find : $(-1) \times 2 \times (-3) \times (-1)$

Q8. Check whether a triangle with the following sides is possible or not : 3 cm, 3 cm and 8 cm.

Q9. Solve : $\dfrac{2}{7} \div \dfrac{7}{2}$

Q10. Reduce $\dfrac{-49}{70}$ to the standard form.

Q11. (a)   Write a pair of negative integers whose sum is –9.

(b)   Write a pair of positive integers whose difference is 11.

Q12. Find the supplement of the following angles :

(a)   125°   (b)   75°

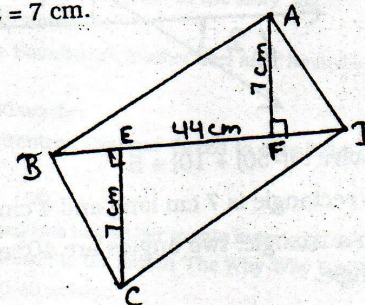**Q13.** Asha had $5\dfrac{3}{4}$ m of ribbon. She uses $2\dfrac{5}{6}$ m of ribbon. Find the length of ribbon left with her?

Q14. Draw a number line and represent the following rational numbers on it :

(a) $\dfrac{-7}{4}$ (b) $\dfrac{2}{4}$

Q15. Find the area of quadrilateral ABCD where BD = 44 cm, AF = CE = 7 cm.
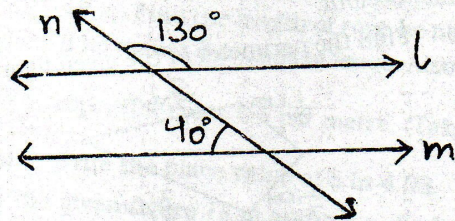

Q16. The lengths of two sides of a triangle are 6 cm and 8 cm. Between which two numbers can length of the third side fall?

Q17. If the area of the parallelogram is 24 cm² and height is 6 cm, find its base.

Q18. Find four rational numbers between $\dfrac{1}{3}$ and $\dfrac{1}{4}$.

Q19. In the given figure, check whether l is parallel to m or not.

20. Use the sign of >, < or = in the box to make the statement true.

   (a) $17 - 34 + 15$ ☐ $29 - 5 - 17$

   (b) $-7 - 2 + 5$ ☐ $9 - 2 - 7$

Q21. Arrange in descending order :

   $\dfrac{-5}{6}, \dfrac{-2}{5}, \dfrac{2}{3}$

Q22. Convert :

   (a) 20 g to kg

   (b) 17 cm to m

Q23. A path 1.5 m wide is built along the border and inside a square garden of side 25 m. Find area of the path.

Q24. Find the product, using suitable properties :
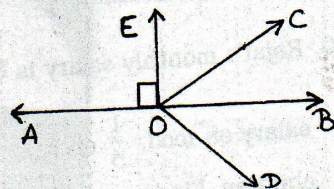
   (a) -41×103

   (b) $25 \times 10 + 25 \times (-12)$

Q25. In the given figure :

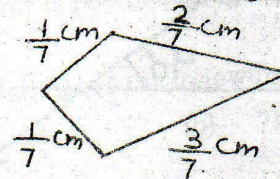   (a) What is the complement of $\angle EOC$?

   (b) Write an angle adjacent to $\angle AOD$?

   (c) Write one pair of angles forming linear pair.

Q26. (a) Cost of 1 m of cloth is ₹ 4.75. Find the cost of 20m of cloth.

   (b) Find the perimeter of the given figure.

Q27. A tree is broken at a height of 16 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

Q28. The given figure shows two circles with the same centre. The radius of the larger circle is 20 cm and the radius of the smaller circle is 10 cm. Find :

   (a) the area of the larger circle.

   (b) the area of the smaller circle.

   (c) the shaded area between the two circles. (Take $\pi = 3.14$)
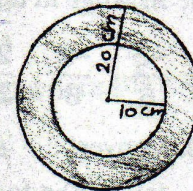
Q29. (a) In a quiz, +5 marks are awarded for every correct answer and (–3) for every incorrect answer. Madhuri answered 12 questions out of which only 7 answers were correct and 5 answers were incorrect. Find the total score of Madhuri.

   (b) The temperature of a city was 26°C on Wednesday. The temperature rose by 2°C on Thursday and fell by 5°C on Friday. What was the temperature of the city on Friday?

Q30. Rajat's monthly salary is ₹ 96000. He spends $\dfrac{1}{4}$ of his salary on food, $\dfrac{1}{5}$ on rent and $\dfrac{1}{6}$ on education of poor children. Find :

   (a) how much money does he spend on each part?

   (b) how much money is still left with him?

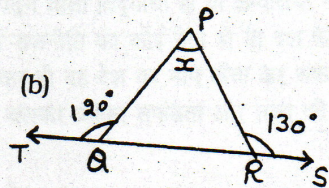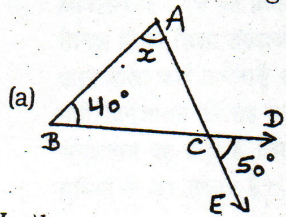(c) write one importance of education.

Q31. (a) A gardener wants to fence a circular garden of radius 49 m. Find the length of rope he needs to purchase if he makes 3 rounds of fence. Also, find the cost of rope, if it costs ₹ 5 per metre. (Take $\pi = \frac{22}{7}$)

(b) Write the place value of 3 in 4.03.

Q32. In the given figure $l \parallel m$ and $p \parallel q$, find the measure of angles a, b, c and d.
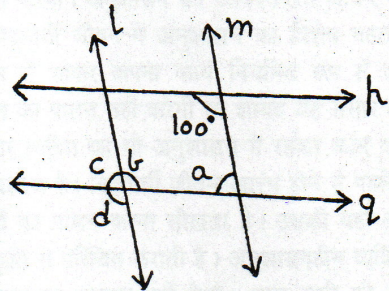
Q33. Find x in the following :

(a)

(b)

Q34. In the given figure, find the area of the shaded portion.

(5)