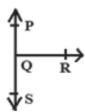
## **MATHEMATICS SAMPLE WORKBOOK**

- 01. Find the area of triangle whose base is 22 m and height is 350 cm.
  - $a.40 \, m^2$
- b. 38.5 m<sup>2</sup>
- c. 42.2 m<sup>2</sup>
- d. 44.5 m<sup>2</sup>

- 02. What is the angle of PQS?
  - a. 180°
  - b. 90°
  - c. 45°
  - d. 120°



03. Which of the following statement is false?

a. 
$$x = \frac{7}{2}$$
 is the solution of  $2x - 2 = 5$ 

- b. p = 3 is the solution of p + 2 = 5
- c. x = 4 is the solution of 6x + 2 = 16
- d. y = 7 satisfies the equation 3y 9 = 12
- 04. A bus is moving at an average speed of 40  $\frac{5}{2}$  km/h. How much distance will it cover in
  - $2\frac{4}{5}$  hours?
  - a. 135 km
- b. 133 km
- c.119 km
- d.142 km

- 05. Arrange the following decimals in descending order.
  - 6.84, 6.48, 6.8, 6.08
  - a. 6.84, 6.8, 6.08, 6.8
  - b. 6.84, 6.8, 6.48, 6.08
  - c. 6.84, 6.48, 6.8, 6.08
  - d. 6.08, 6.48, 6.8, 6.84
- O6. Sum of two natural numbers is 80. If one number exceeds the other by 20, find the numbers.
  - a. 20, 40
- b. 25, 45
- c. 30, 50
- d. 35, 55
- 07. An expression is taken away from  $3x^2 4y^2 + 5xy + 20$  to obtain  $-x^2 y^2 + 6xy + 20$ , then the expression is \_\_\_\_\_.
  - a.  $4x^2 3y^2 xy$

b.  $2x^2 - 5y^2 + xy + 40$ 

c.  $3y^2 - xy - 4x^2$ 

 $d. 4x^2 + 3y^2 + xy$ 

## Class 07

## INDIAN TALENT OLYMPIAD

- 08. On selling a refrigerator for 12,500, a man suffers a loss of 1/6 of its cost price. What is his loss percentage?
  - a. 12.5%
- b. 15.2%
- c. 16.7%
- d. 18.5%
- 09. What will be  $a \times a \times a \times b \times b \times c \times c$  in exponential form when a = 2, b = 3 and c = 4.
  - a.  $2^33^44^2$
- $b. 2^2 3^3 4^2$
- $c. 2^3 3^2 4^2$
- $d.4^33^22^3$

- 10. If  $\left(\frac{5}{3}\right)^{-5} \times \left(\frac{5}{3}\right)^{11} = \left(\frac{5}{3}\right)^{8+x}$ , then x = ?
  - a.  $\frac{-1}{2}$

b. -2

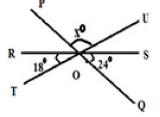
c. 2

- $d.\frac{1}{2}$
- 11. The ages of A and B are in the ratio 3:5. Five years later, their ages will be in the ratio 7:10. Find the present age of B.
  - a. 12 years
- b. 15 years
- c. 20 years
- d. 25 years
- 12. In the given figure, P-O-Q, R-O-S and T-O-U are straight lines. Find ∠X.
  - a. 138°

b. 142°

c. 148°

d. 136°



- 13. The orthocentre, circumcentre, incentre, centroid and nine-point center are all the same point in case of an \_\_\_\_\_ triangle.
  - a. Isosceles Right angled triangle
- b. Equilateral triangle

c. Acute angled triangle

- d. None of the above
- 14. If the circumferences of two circles are in the ratio 13:19. Then the ratio of their areas is
  - a. 196:389
- b. 26:38
- c. 169:361
- d. 13:19

- 15. What will be the range of the following data?
  - 43, 23, 51, 35, 38, 48, 29, 37, 46, 50, 31, 28, 25
  - a. 27

b. 30

c. 28

- d. 26
- 16. The length and breadth of a rectangular field is 125 m and 285 m respectively. What will be the cost of levelling it at the rate of ₹0.2 per sq.cm?
  - a. ₹647300
- b. ₹579010
- c.₹712500
- d. ₹853250

## **ANSWER KEY**

1 b	2 a	3 c	4 c	5 b	6 c	7 a	8 c
9 с	10 b	11 b	12 b	13 a	14 c	15 c	16 c