

**SAMAGRA SHIKSHA KERALA**  
**ANNUAL EVALUATION 2023-2024**  
**Mathematics**

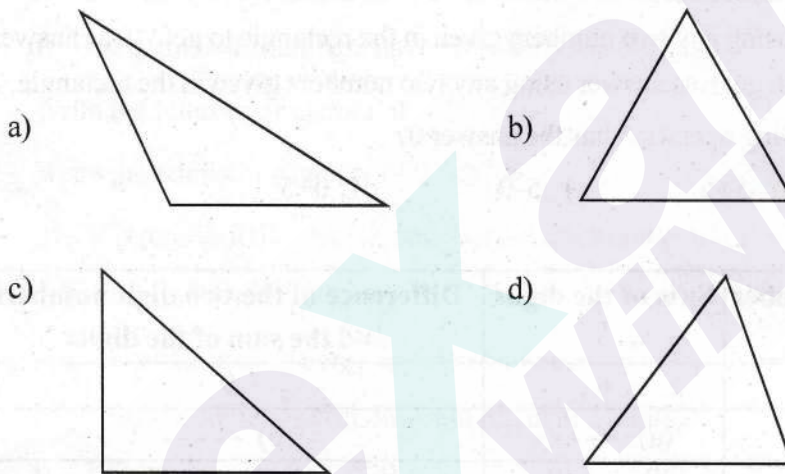
Standard: 7

Time: 2 Hrs

- ◆ 15 minutes is given as cool-off time.
- ◆ Read the questions carefully during this time.
- ◆ Attempt any **six** activities from activities given.

**Activity 1**

A) Which among the following is a right angled triangle?

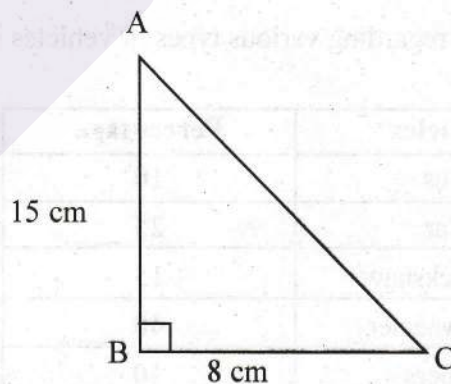


B) Which measures given below can be the sides of a right angled triangle?

- a) 5, 7, 9      b) 6, 8, 10      c) 7, 9, 11      d) 8, 10, 12

C) If the measure of one of the two smaller angles of a right angled triangle is  $40^\circ$ , then what is the measure of the other angle?

D) Triangle ABC is a right angled triangle. What is the length of AC?



## Activity 2

One gram gold costs 5800 rupees.

- A) What is the cost of a gold coin that weighs 4 grams?
- B) If 2% price discount is given for this gold coin, how much amount will be reduced in price?
- C) 10% manufacturing charge was paid for a bangle of 4 grams. How much should be paid for the bangle including the manufacturing charge?

## Activity 3

|      |     |    |   |
|------|-----|----|---|
| -12, | 5,  | 8, | 7 |
| 9,   | -3, | 6, | 2 |

Look at the numbers in the rectangle.

- A) Which is the largest number?
- B) Which is the smallest number?
- C) Write an operation using any two numbers given in the rectangle to get -10 as answer.
- D) Write an operation to get 6 as answer using any two numbers given in the rectangle.
- C) Which of the following operation has the answer 0?
  - a)  $-5-5$ ,      b)  $-5+5$       c)  $5-0$       d)  $0+5$

## Activity 4

| Two digit number | Sum of the digits | Difference of the two digit numbers and the sum of the digits |
|------------------|-------------------|---|
| 15               | 6                 | 9   |
| 29               | (a) -----         | (b) -----   |
| 73               | (c) -----         | (d) -----   |

- A) Complete the table.
- B) What is special about the answer obtained when sum of the digits is subtracted from the given two digit number?
- C) What will you get if you subtract the sum of the two digits from the two digit number denoted as  $10x+y$ .

## Activity 5

The table below gives information regarding various types of vehicles registered in the RTO office last year.

| SL.No. | Vehicles    | Percentage |
|--------|-------------|------------|
| 1      | Bus         | 10         |
| 2      | Car         | 25         |
| 3      | Autrickshaw | 15         |
| 4      | Two wheeler | 40         |
| 5      | Others      | 10         |

Draw a pie chart representing the above information.



### Activity 6

- A) Which of the following cannot be the measures of a triangle?
- a) 5 cm, 5 cm, 7 cm                      b) 7 cm, 7 cm, 5 cm  
c) 4 cm, 4 cm, 7 cm                      d) 3 cm, 3 cm, 7 cm
- B) In triangle XYZ,  $XY = 7$  cm,  $YZ = 6$  cm,  $\angle XYZ = 65^\circ$ . Construct the triangle.

### Activity 7

- A) Which of the following statements is false?
- a) A prime number has two factors.  
b) The product of two different prime numbers has three factors.  
c) The number of factors of a perfect square is an odd number.  
d) All composite numbers have more than two factors.
- B) Write the number of factors of  $2^5$ ?
- C) Write the number of factors of  $2^5 \times 3^4$ ?
- D)  $2^5 \times 3^4$  is multiplied by which smallest natural number to get a perfect square.

### Activity 8

A train travels at an average speed of 54 km/hr.

- A) How many kilometres will this train travel in 5 hours?
- a) 170 km                      b) 540 km                      c) 270 km                      d) 570 km
- B) What is the distance covered in one second?
- C) This train is 180 metres long. How much time does the train take to pass an electric post?