

### **SAMPLE PAPER**

**CLASS** 

7

### **CREST Mathematics Olympiad (CMO)**

#### Syllabus for CMO is available at <a href="https://www.crestolympiads.com/cmo-syllabus">https://www.crestolympiads.com/cmo-syllabus</a>

Pattern And Marking Scheme				
Class	Topic/Section	No. of Questions	Marks per Questions	Total Marks
	Practical Mathematics	25	1	25
1 <sup>st</sup> to 4 <sup>th</sup>	Achiever's Section	10	2	20
	<b>Grand Total</b>	35	-	45
	Practical Mathematics	40	1	40
5 <sup>th</sup> to 10 <sup>th</sup>	Achiever's Section	10	2	20
	<b>Grand Total</b>	50	-	60

1.	A bucket contains 20 <sup>1</sup> / <sub>4</sub> litre of water. A small jug has a capacity of 3/4 litre. How many
	times the jug has to be filled with water from the bucket to get it emptied?

(a) 15

(b) 17

(c) 27

(d) 31

2. Each side of a polygon is 2.9 m in length and its perimeter is 17.4 m. How many sides does the polygon have?

(a) 6

(b) 9

(c) 11

(d) 13

3. In a caravan, in addition to 50 hens, there are 45 goats and 8 camels with some keepers. If the total number of feet be 224 more than the number of heads, then find the number of keepers:

(a) 19

(b) 17

(c) 16

(d) 15

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4. A businessman man sells shirts at a profit of 12  $^{1}/_{2}$ % and invests the proceeds to buy pants which he sells at a profit of 20%. If he makes a net profit of Rs. 700, then find the cost of the shirts:

(a) Rs. 2300

(b) Rs. 2000

(c) Rs. 2500

(d) Rs. 2400

5. The simple interest on a certain sum for 3 years at 8% per annum is Rs. 96 more than the simple interest on the same sum for 2 years at 9% per annum. Find the sum:

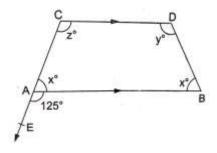
(a) Rs. 4800

(b) Rs. 3200

(c) Rs. 2400

(d) Rs. 1600

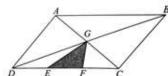
6. In the given figure, AB||CD and CA has been produced to E so that  $\angle$ BAE = 125°. If  $\angle$ BAC = x° =  $\angle$ ABD,  $\angle$ BDC = y° and  $\angle$ ACD = z°, then find the value of y:



- (a) 50°
- (c) 125°

- (b) 85°
- (d) 175°

7. In the following figure, ABCD is a parallelogram. The area of triangle EFG is equal to 6 cm<sup>2</sup> and DE = EF = 1/3 of CD. Find the area of parallelogram ABCD:



- (a) 72 cm<sup>2</sup>
- (c) 62 cm<sup>2</sup>

- (b) 56 cm<sup>2</sup>
- (d) 75 cm<sup>2</sup>

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8. A rectangular ground is 90 m long and 32 m broad. In the middle of the ground, there is a circular tank of radius 14 m. Find the cost of turfing the remaining portion at the rate of Rs. 50 per square:

(a) Rs. 1,1320

(c) Rs. 125,650

(b) Rs. 113,200

(d) Rs. 15,800

## **Achiever's Section**

- 9. Which of the following statement(s) is/are true, if:
  - (1) The quotient of two integers is always a rational number.
  - (2) 1/0 is not rational.
  - (a) 1 is true and 2 is the correct explanation of 1.
  - (b) 1 is true and 2 is false.
  - (c) 1 is false and 2 is the correct explanation of 1.
  - (d) Both 1 and 2 are false.
- 10. The measurements of the triangle DEF are given below:  $EF = 8.4 \text{ cm}, \angle E = 103^{\circ} \text{ and } \angle F = 85^{\circ}. \text{ Which of the above statements is true?}$ 
  - (a) Triangle DEF can be constructed.
  - (b) It is an obtuse angled triangle.
  - (c) It is an acute angled triangle.
  - (d) Triangle DEF cannot be constructed.

#### **Answers**

1. (c), 2. (a), 3. (d), 4. (b), 5. (d), 6. (c), 7. (a), 8. (b), 9. (c), 10. (d).