

## SYLLABUS OF MATH

**SYLLABUS**

Section – 1: Verbal and Non-Verbal Reasoning.

Section – 2: Knowing our Numbers, Whole Numbers, Playing with Numbers, Basic Geometrical Ideas, Understanding Elementary Shapes, Integers, Fractions, Decimals, Data Handling, Mensuration, Algebra, Ratio and Proportion, Symmetry, Practical Geometry.

Section – 3 : Syllabus as per Section – 2.

Section – 4 : Higher Order Thinking Questions - Syllabus as per Section – 2.

**PATTERN & MARKING SCHEME**

Section	(1) Logical Reasoning	(2) Mathematical Reasoning	(3) Everyday Mathematics	(4) Achievers Section
No. of Questions	10	10	10	5
Marks per Ques.	1	1	1	3

## REASONING

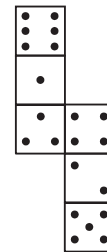
1. Find the next term in the series given below.

**3F, 6G, 11I, 18L, ?**

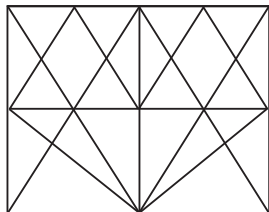
- (A) 21O
- (B) 25N
- (C) 27P
- (D) 27Q

- (C) 14
- (D) 17

3. How many dots lie opposite to the face having four dots, when the given net of cube is folded?



2. Find the minimum number of straight lines required to draw the given figure.



- (A) 15
- (B) 16

- (A) 2
- (B) 1
- (C) 5
- (D) 6

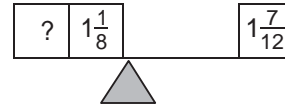
4. The given table shows the temperature of a city for 7 consecutive hours.

Hour	1	2	3	4	5	6	7
Temperature (°C)	-6	15	-2	23	12	0	-4

Calculate the difference between the highest and the lowest temperature of the city over the 7 hour period.

- (A) 17°C  
 (B) 29°C  
 (C) 21°C  
 (D) 25°C

5. To balance the scale, find the missing fraction.



- (A)  $\frac{11}{24}$                       (B)  $\frac{10}{24}$   
 (C)  $\frac{5}{24}$                         (D)  $\frac{1}{24}$

6. Evaluate :

$$-1 + 55 - (-29) + (-1) - (-82) + (-3)$$

(A) 161                              (B) -161  
 (C) 158                              (D) -158

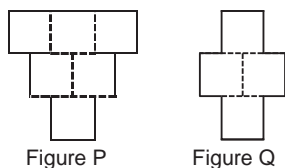
## EVERYDAY MATHEMATICS

7. On a hill, the temperature at 8 p.m. was  $2^{\circ}\text{C}$  but at the mid-night of the same day, it fell down to  $-3^{\circ}\text{C}$ . By how many degrees did the temperature fall?  
 (A)  $6^{\circ}\text{C}$   
 (B)  $5^{\circ}\text{C}$   
 (C)  $2^{\circ}\text{C}$   
 (D)  $3^{\circ}\text{C}$
8. Vishal jogged around a rectangular field 4 times. If the rectangular field was 135 m long and 78 m wide, then how far did Vishal jog?  
 (A) 426 m  
 (B) 852 m  
 (C) 1278 m  
 (D) 1704 m

## ACHIEVERS SECTION

9. Figure P is made up of six identical squares. Two squares were removed from figure P to form figure Q. The perimeter of figure P is 240 cm. What is the perimeter of figure Q?

- (A) 220 cm  
 (B) 180 cm  
 (C) 200 cm  
 (D) 160 cm



10. Find the value of  $\left(\frac{P+Q}{R}\right) \times S$ .

- (i) 100 lakhs = Q millions  
 (ii) R crores = 100 millions  
 (iii) 100 thousands = P lakhs  
 (iv) 10 crores = S millions  
 (A) 10                                      (B) 100  
 (C) 110                                     (D) 1

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 SPACE FOR ROUGH WORK

## ANSWERS

1. (C)    2. (B)    3. (C)    4. (B)    5. (A)    6. (A)    7. (B)    8. (D)    9. (C)    10. (C)