

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	15	20	10	5
Marks per Ques.	1	1	1	3

REASONING

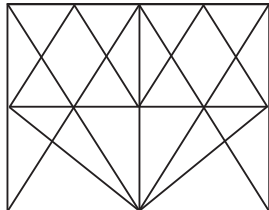
1. Find the next term in the series given below.

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

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

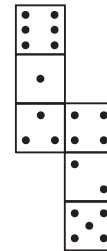
- (C) 14
(D) 17

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



- (A) 15
(B) 16

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



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

MATHEMATICAL REASONING

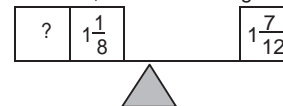
4. The given table shows the temperature of a city for 7 consecutive hours.

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

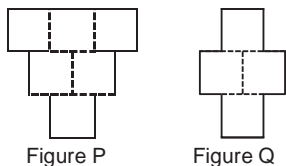
EVERYDAY MATHEMATICS

7. On a hill, the temperature at 8 p.m. was 2°C but at the mid-night of the same day, it fell down to -3°C . By how many degrees did the temperature fall?
 (A) 6°C
 (B) 5°C
 (C) 2°C
 (D) 3°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

 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)