|  | Total Questions : 50 |  |  |  | Time : 1 hr . |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | PATTERN \& MARKING SCHEME |  |  |  |  |
| - | Section | (1) Logical Reasoning | (2) Mathematical Reasoning | (3) Everyday Mathematics | (4) Achievers Section |
| SOF INTERNATIONAL MATHEMATICS OLYMPIAD | No. of Questions | 15 | 20 | 10 | 5 |
|  | Marks per Ques. | 1 | 1 | 1 | 3 |



Scan the QR code for more details

## 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.
Section - 3 : Syllabus as per Section - 2.
Section - 4 : Higher Order Thinking Questions - Syllabus as per Section - 2.

## LOGICAL REASONING

1. Find the next term in the series given below.
3F, 6G, 11I, 18L, ?
(A) 210
(B) 25 N
(C) 27 P
(D) 27Q
2. Find the minimum number of straight lines required to draw the given figure.

(A) 15
(B) 16
(C) 14
(D) 17
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 <br> $\left({ }^{\circ} \mathrm{C}\right)$ | -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) $17^{\circ} \mathrm{C}$
(B) $29^{\circ} \mathrm{C}$
(C) $21^{\circ} \mathrm{C}$
(D) $25^{\circ} \mathrm{C}$
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
7. On a hill, the temperature at 8 p.m. was $2^{\circ} \mathrm{C}$ but at the mid-night of the same day, it fell down to $-3^{\circ} \mathrm{C}$. By how many degrees did the temperature fall?
(A) $6^{\circ} \mathrm{C}$
(B) $5^{\circ} \mathrm{C}$
(C) $2^{\circ} \mathrm{C}$
(D) $3^{\circ} \mathrm{C}$
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


Figure $P$


Figure Q
10. Find the value of $\left(\frac{P+Q}{R}\right) \times S$.
(i) 100 lakhs = $\qquad$ millions
(ii) $R$ crores $=100$ millions
(iii) 100 thousands = $\qquad$ lakhs
(iv) 10 crores = $\qquad$ millions
(A) 10
(B) 100
(C) 110
(D) 1

