NATIONAL CYBER OLYMPIAD (NCO) NATIONAL SCIENCE OLYMPIAD (NSO) INTERNATIONAL MATHEMATICS OLYMPIAD (IMO)

## Logical Reasoning Sample Test Class-8

Total-Question:15

| PATTERN \& MARKING SCHEME |  |
| :---: | :---: |
| Section | (1) Logical Reasoning Sample Test Class-8 |
| No. of Questions | 15 |
| Marks per Ques. | 1 |

## Logical Reasoning Sample Test Class-8

Q 1.
Select the option which will replace the question mark in the given number series. 10, 100, 200, 310, ?

A 400
B 410
C 420
D 430

## Q 2.

Mr. 'X' shows three photographs to Mr. 'Y'. Pointing towards photograph 1, he says, The person in photograph 1 is my uncle, who says 'uncle' to the person in photograph 2 , and the person in photograph 3 is called 'uncle' by the person in photograph 2. How is Mr. ' X ' related to the person in photograph 2?

A Grandson
B Granddaughter
C Great grandson
D None of these

## Q 3.

At a dinner party, both fish and meat were served Some took only fish while some took only meat. There were some vegetarians also who did not accept either of the two, while the rest accepted both fish and meat. Which of the following Venn diagrams correctly
represents this situation?

A


B


C


D


Q 4.

Six people $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}$ and U are sitting on the ground in a hexagonal shape. All the sides of the hexagon, so formed, are of same length. $P$ is not adjacent to $Q$ or $R$; $S$ is not adjacent to $R$ or $T ; Q$ and $R$ are adjacent; $U$ is in the middle of $S$ and $R$. Who is at the same distance from $S$ as $T$ is from $S$ ?

A Q
B R
C U
D Can't be determined

## Q 5.

Select the pair of figures which satisfies the same conditions of placement of dots.



II


III


IV

A I, II
B II, III
C III, IV
DI, IV

Q 6.

If the alphabets are written in the reverse order after interchanging alphabets from 'D to L' with those from 'R to $Z$ ' respectively, which letter would be midway between $W$ and $E$ in the new order?

A Z
B N
C D
D None of these

Q 7.

If Fig. $(X)$ is rotated one step in a particular direction, then identify its rotated form, from the given option figures.


Fig. (X)


B


C


D


## Q 8.

Select a figure from the given options which will complete the given figure matrix.


C


D


## Q 9.

Three of the following four numbers are alike in a certain way and so form a group. Which of the following does not belong to that group?

A 143
B 399
C 759
D 257

## Q 10.

There are seven figures, the first and last of which are unmarked and remaining are marked as P, Q, R, S and T. However, the series will be established only if the positions of two of the marked figures are interchanged Find the figures.


A PQ
B QR
C QT
D ST

## Q 11.

Answer the question referring to the symbol-letter-number sequence given below:
P: 3 \# R U $2+>A P Y B 4$
Q: S£ $5 \mathrm{~N} \Leftrightarrow \mathrm{FG} 8 * \mathrm{D} 7 \mathrm{Y}$
R: O * H T 6 @ C $9 \mathrm{ZK} \Leftrightarrow 1$
What is the difference between the total letters and total symbols, which are used in the series of $P, Q$ and $R$ ?

A Eight
B Nine
C Six
D Seven

## Q 12.

In a certain code language, the word HURDY-GURDY is written as GF-GE and HOB-NOB is written as BE-CA. How will the word HUGGER-MUGGER be written in that language?

A EI-AG
B EI-GA
C EF-GA
D FF - GA

## Q 13.

Find the missing figure which will replace the (?) in Problem Figures to complete the series.

Problem Figures




## Q 14.

There is a certain relationship between fig. (i) and (iii). Establish the similar relationship between fig. (ii) and (iv) by selecting a suitable figure from the options which will replace the (?) in fig. (iv).

(i)

(ii)

(iii)

(iv)


D


## Q 15.

Shivam and Varun want to visit the museum after their exam. Shivam's exam finishes on $9^{\text {th }}$ April and he is leaving for a holiday on $12^{\text {th }}$ April. Varun's exam will be over by $10^{\text {th }}$ April after which he is free. On which of the following dates can the two definitely meet?

A $10^{\text {th }}$ April
B Either $10^{\text {th }}$ or $11^{\text {th }}$ April
C $11^{\text {th }}$ April
D Either $11^{\text {th }}$ or $12^{\text {th }}$ April

## Answers

Logical Reasoning Sample Test Class-8
$\begin{array}{llllllllllllll}1 . D & 2 . A & 3 . A & 4 . B & 5 . B & 6 . B & 7 . D & 8 . B & 9 . D & 10 . B & 11 . B & 12 . D & 13 . B & 14 . A \\ 15 . C\end{array}$

## Solutions:

S 1.
$1^{\text {st }}$ term is 10 ,
$2^{\text {nd }}$ term is $10+90=100$
$3^{\text {rd }}$ term is $100+100=200$
$4^{\text {th }}$ term is $200+110=310$
$5^{\text {th }}$ term will be $310+120=430$
Answer - (D) 430

## S 2.

X ----- photo 1(uncle) -----photo 2(uncleof photo 1) -------- photo 3(uncle of photo 2)
Photo 2 is, uncle of, uncle, of $X$
So, photo 2 is grand uncle of $X$
So $X$ is grandson of photo 2 .
Answer-(A) Grandson

## S 3.

The Given situation can be rebresented as under:


Vegetarians

Answer- (A)


## S 4.



P S
$Q$ and $R$ are adjacent. And $U$ is in the middle of $S$ and $R$.
So, Q - R - U - S .
Now, $P$ and $T$ remain. $P$ is not adjacent to $Q$ or $R$ So, $P$ can be adjacent to $S$.
As the hexagon is regular, $\mathrm{ST}=\mathrm{SR}$.
Answer- (B) R

## S 5.

In II and III - One dot lies in the rectangle only.
Second dot lies in the square only
Third dot is common to circle and triangle.
Fourth dot is inside the square, rectangle and circle but outside the triangle.
Answer-(B) II, III

## S 6.

After interchanging-

## ABCRSTUVWXYZMNOPQDEFGHIJKL

Answer- (B) N

## S 8.

If we see row wise- There are 3 different types of heads and square head is missing. Hands should point downwards..The straight line body is missing.
And legs should have circles at the end of them.
Answer- (B)


## S 9.

Out of all the numbers given 257 is the only Prime number.
Answer-(D) 257

## S 10.

From left to right - the shaded part is increasing while the unshaded part is decreasing. But for Q and R - in Q the unshaded part is lesser than that in R .

Answer-(B) QR

## S 11.

Number of letters = 18, number of symbols = 9
Answer-(B) Nine

## S 12.

Counting from the right side of the Alphabets
HURDY $=19+6+9+23+2=59$
Counting from the left side, $\mathrm{E}=5$ and $\mathrm{I}=9$
Counting from the left side GURDY = $7+21+18+4+25=75$
$G=7$ and $E=5$
HUGGER $=19+6+18+18+21+9=91$
MUGGER $=13+21+7+7+5+18=73$
Answer-(D) FF-GA

## S 13.

The arrow is moving along the circumference in the clock wise direction.
The dot has moved 2 places clockwise in the $2^{\text {nd }}$ figure, 3 places in $3^{\text {rd }}$ figure,
So, it should move 4 place in the $4^{\text {th }}$ figure as a result it moves 5 places in the $5^{\text {th }}$ figure. Answer-(B)

## S 14.

In the top figure- The circle moves from one side to the other. Figure is inverted. In the bottom figure- the shaded circle does not change its position. Figure is inverted. Answer-(A)

## S 15.

Shivan can visit on $10^{\text {th }}$ or $11^{\text {th }}$. Varun's exam will be over by $10^{\text {th }}$ April. So, he can visit on $11^{\text {th }}$.
Answer-(C) $11^{\text {th }}$ April

