LOGICAL REASONING

SOF OLYMPIAD TRAINER

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

CLASS 9

Logical Reasoning Sample Test Class-9

Total-Question:15   Time:15.0 Mins

PATTERN & MARKING SCHEME	
Section	(1) Logical Reasoning Sample Test Class-9
No. of Questions	15
Marks per Ques.	1

Logical Reasoning Sample Test Class-9

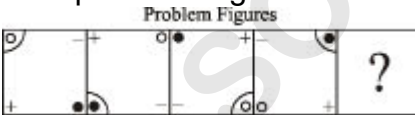### Q 1.

Find the missing term in the given series.
19200, 1920, 240, 40, 10, ?

A 1

B 5

C 0

D 10

Q 2.

Select a figure from the options which will continue the same series as established by the four problem figures.

A

B

C

D

Q 3.

Six persons Aman, Beenu, Charu, Disha, Esha and Giya took up a job with an organization in a week from Monday to Saturday. Each of them joined for different posts on different days. The posts were ofclerk, officer, technician, manager, supervisor and sales executive, though not necessarily in the same order.Giya joined as a manager on the first day. Beenu joined as a supervisor but neither on Wednesday nor Friday. Disha joined as a technician on Thursday. Charu joined on Wednesday. Esha joined as a clerk on Tuesday. Aman joined as a sales executive.Which of the following is correctly matched regarding the posts and day of joining?

A Manager-Tuesday

B Officer-Wednesday

C Clerk-Thursday

D Technician-Monday

Q 4.

Find the missing character, if the given matrix follows a certain rule, row-wise or column-wise.

A	D	G
D	I	N
I	P	?

A V

B W

C X

D Y

Q 5.

If Saturday falls on fourth day after today which is 6th January, then on what day did 1st December of the previous year fall?

A Sunday

B Wednesday

C Tuesday

D Monday

Q 6.

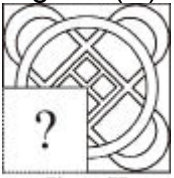Select a figure from the options, which would replace the (?) to complete the pattern in Figure (X).

Figure (X)

A

B

C

D

Q 7.

Find the mirror image of Fig. (X), if the mirror is placed vertically to the left.

Fig. (X)

A

B

C

D

Q 8.

Garima and Saurabh are children of Mr. Jindal. Garima marries Amit Goel and Sahil, Sameer and Sanchit are born to them. Sahil is married to the eldest daughter of Mr. and Mrs. Mittal.Kaya is younger to Piya but older than Riya who are the daughters of Mr. and Mrs. Mittal. Latika is Sahil's daughter.How is Saurabh related to Sanchit?

A Brother-in-law

B Uncle

C	Maternal uncle
D	Brother

Q 9.

In the sequence given below, in some cases the sum of the two digits which immediately precede the digit '3' exceeds the sum of the two digits which immediately follow the digit 3 and sum of the two digits which immediately follow the digit '5' exceeds the sum of the two digits which immediately precede the digit 5. How many such 3's and 5's are there altogether?
2 5 4 3 6 7 5 2 8 3 9 7 5 4 3 4 6 5 2 6 3 5 8 3 5 2 4 6 3 7 5 8 3 5 2 6

A	5
B	6
C	7
D	4

Q 10.

In a certain code, the word DEAL is coded as 4 - 5 - 1 - 12. Following the same rule of coding, what should be the code for the word LADY?

A	12 - 4 - 1 - 25
B	12 - 1 - 4 - 25
C	10 - 1 - 4 - 23
D	12 - 1 - 4 - 22

Q 11.

Two rows of numbers are given. The resultant of each row is to be worked out separately based on the following rules, and the question below the rows of numbers is to be answered. The operations of numbers in each row progress from left to right.
Rules:
(i) If an odd number is followed by another odd number, they are to be multiplied.
(ii) If an even number is followed by another even number, the first number is to be divided by the second even number.
(iii) If an even number is followed by the perfect square of an odd number, the first number is to be subtracted from the second number.
(iv) If an odd number is followed by an even number, the two are to be added.
(v) If an even number is followed by an odd number which is not a perfect square, the square of the odd number is to be added to the even number.

    9   15   50
    12   25   24

If the resultant of first row is x and that of second row is y, then find the value of x ÷ y.

A   18

B   8

C   5

D   6

Q 12.

A cube of side 10 cm is coloured red with a 2 cm wide green strip along all the sides on all the faces. Now, the cube is cut into 125 smaller cubes of equal size. How many cubes have three green faces each?

A   0

B   4

C   6

D   8

Q 13.

Pointing to a woman in a photograph, a man says "She is the grandmother of the son of my daughter-in-law's mother-in-law." How is the woman related to the man?

A   Mother

B   Mother-in-law

C   Sister

D   Wife

Q 14.

P, Q and R are three points on the ground. Point P is North of point Q and ∠PQR is 135° in anticlockwise direction. In what direction is point R from point Q?

A   North-East

B   North-West

C   South-East

D   South-West

Q 15.

If all the consonants starting from B are given sequentially the value of even numbers such as B = 2, C = 4 and so on, and all the vowels are given double the value of the preceding vowel and the value of A is 5, then what is the value of REASONING?

A 162

B 177

C 185

D 187

Logical Reasoning Sample Test Class-9

1.B   2.B   3.B   4.B   5.D   6.C   7.D   8.C   9.D   10.B   11.C   12.D   13.A   14.D   15.D

Solutions:

S 1.

19200 ÷ 10 = 1920, 1920 ÷ 8 = 240, 240 ÷ 6 = 40, 40 ÷ 4 = 10
So, 10 ÷ 2 = 5

S 2.

The 'o', '+', '-' and the black dot, are all moving clockwise.
The arc is moving anticlockwise.

Answer is B

S 3.

Person	Post	Day of the week
Giya	Manager	Monday
Esha	Clerk	Tuesday
Charu	Officer	Wednesday
Disha	Technician	Thursday
Aman	Sales executive	Friday
Beenu	Supervisor	Saturday

Answer- B Officer-Wednesday

S 4.

Row-wise-
There 2 alphabets between A and D, also 2 alphabets between D and G.
There 4 alphabets between D and I, also 4 alphabets between I and N.
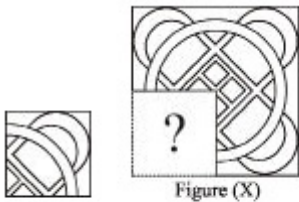There 6 alphabets between I and P. So the alphabet, 6 places away from P is W.

S 5.

Since, Saturday falls four days after 6th Jan. Therefore,10th Jan., is Saturday.
The number of days between 1st Dec. and 10th Jan. is 40.
After dividing 40 by 7 we get 5 as remainder. Therefore, 5 days before Saturday means Monday.
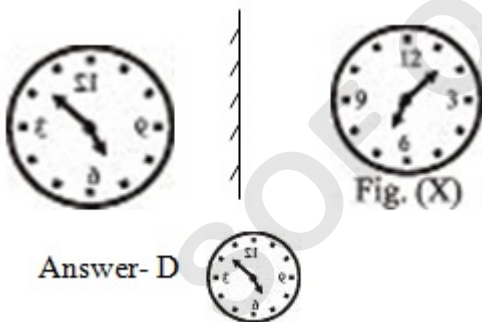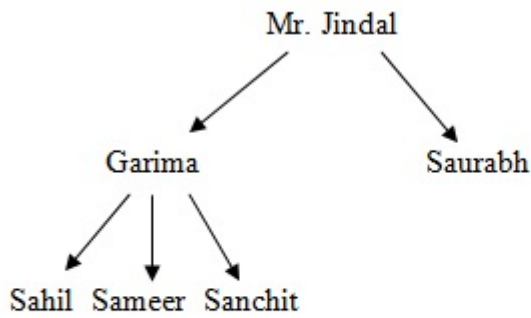
S 6.

Figure (X)

The 2 concentric circles are on the top.

There are 3 horizontal lines of T in the inner corner.

S 7.

Fig. (X)

Answer- D

S 8.

Mr. Jindal

Garima   Saurabh

Sahil Sameer Sanchit

This relationship is only required, the rest is unnecessary information.

Answer- C Maternal uncle

S 9.

2 5 4 3 6 7 5 2 8 3 9 7 5 4 3 4 6 5 2 6 3 5 8 3 5 2 4 6 3 7 5 8 3 5 2 6
There are seven 3.

9 < 13, 10 < 16, 9 < 10, 8 < 13, 13 > 7, 10 < 12, 11 > 7

There are seven 5

10 < 13, 7 < 16, 8 < 10, 11 > 9, 6 < 11, 11 > 10, 8 < 11

Answer- D   4

S 10.

The code is A-1, B-2, C-3, D-4, E-5, F-6 ....
So, LADY = 12 – 1 – 4 – 25
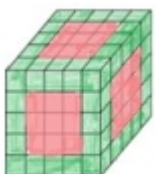Answer-B 12 – 1 – 4 – 25

S 11.

9 15 50 (i) 9 x 15 = 135
(iv) 135 + 50 =185 (x)
12 25 24 (iii) 25 - 12 = 13
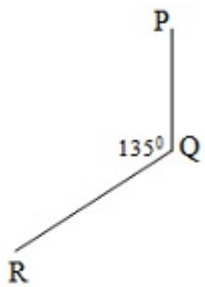(iv) 13 + 24 = 37(y) x ÷ y = 185 ÷ 37 = 5
Answer-(C) 5

S 12.

All the corner cubes are painted green.

So there are 8 cubes with 3 sides painted green.
Answer-(D) 8

The man's daughter-in-law's mother-in-law is his wife.
His wife's son is his son.
The woman in the photo is the grandmother of the man's son.
So, she is the man's mother.
Answer-(A)

Answer-(D) South-West

5 2 4 6 **10** 8 10 12 **20** 14 16 18 20
 A B C D E F G H I J K L M

22 **40** 24 26 28 30 32 **80** 34 36 38 40 42

N O P Q R S T U V W X Y Z
REASONING
28 10 5 30 40 22 20 22 10 = 187
Answer-(D) 187