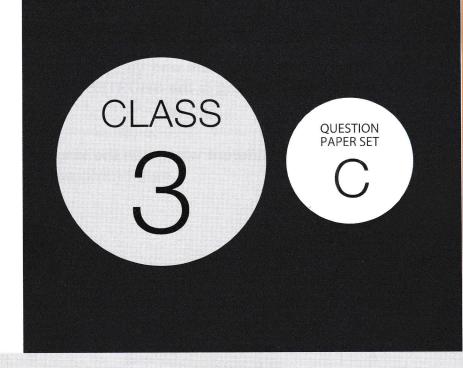


SOF INTERNATIONAL MATHEMATICS OLYMPIAD 2024-25



DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Total Questions: 35 | Time: 1 hr.

Guidelines for the Candidate

- 1. You will get additional ten minutes to fill up information about yourself on the OMR Sheet, before the start of the exam.
- 2. Write your **Name, School Code, Class, Section, Roll No.** and **Mobile Number** clearly on the **OMR Sheet** and do not forget to sign it. We will share your marks / result and other information related to SOF exams on your mobile number.
- 3. The Question Paper comprises four sections:

Logical Reasoning (10 Questions), Mathematical Reasoning (10 Questions), Everyday Mathematics (10 Questions) and Achievers Section (5 Questions)

Each question in Achievers Section carries 2 marks, whereas all other questions carry one mark each.

- 4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
- 5. There is only ONE correct answer. Choose only ONE option for an answer.
- 6. To mark your choice of answers by darkening the circles on the OMR Sheet, use **HB Pencil** or **Blue / Black ball point pen** only. E.g.

Q. 16: Raghav drinks 10 glasses of water in one day. If he drinks same amount of water every day, then how many glasses of water will he drink in one week?

A. 70

B. 40

C. 50

D. 65

As the correct answer is option A, you must darken the circle corresponding to option A on the OMR Sheet.

16. ● B C D

- 7. Rough work should be done in the blank space provided in the booklet.
- 8. Return the OMR Sheet to the invigilator at the end of the exam.
- 9. Please fill in your personal details in the space provided before attempting the paper.



Name:			
SOF Olympiad Roll No.:	Conta	act No.:	

LOGICAL REASONING

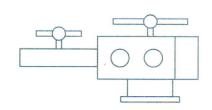
Nisha is taller than Vani and Vani is taller than Pihu. Aarti is taller than Nisha. Who among the following is the SHORTEST? D. Aarti C. Nisha B. Vani A. Pihu In how many different ways, can the king reach the fort? A. 5 B. 4 C. 3 D. 7 Which of the following figures is NOT exactly embedded in the given figure as one of its parts? A. D. 1 C. Which of the following figures does NOT belong to Group (X)? В. D. Group X Select a figure from the options which will complete the given figure pattern. B. D. 6 If today is third day from Monday, then tomorrow will be _____ D. Wednesday C. Friday B. Thursday A. Saturday

IS OL

Select the combination of numbers from the options in which the given letters are arranged accordingly to form a meaningful English word.

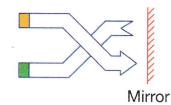
> DGIEU 3 4 5 2

- A. 4, 3, 2, 1, 5 B. 2, 5, 3, 1, 4
- C. 3, 5, 1, 2, 4 D. 2, 3, 1, 5, 4
- Find the number of horizontal lines in the given figure.
 - A. 14
 - B. 12
 - C. 15
 - D. 10



- Select the odd one out.
 - RQP
 - PON

- YXW
- STU D.
- Select the CORRECT mirror image of the given figure.





В.

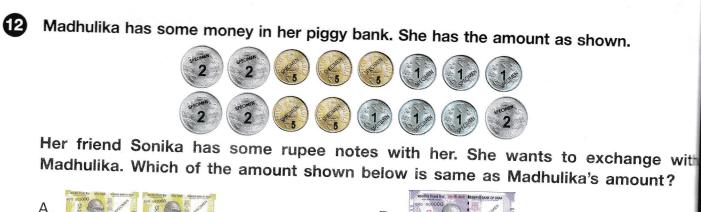




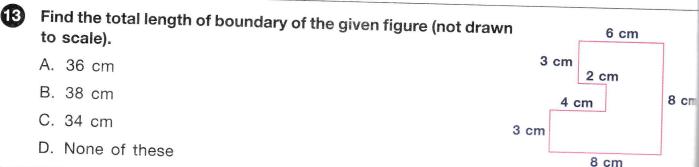


MATHEMATICAL REASONING

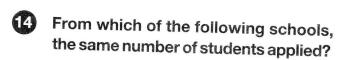
- Mhich of the following options shows the numbers arranged in descending order?
 - A. 758, 652, 358, 419
 - B. 358, 419, 652, 758
 - C. 758, 652, 419, 358
 - D. 419, 652, 358, 758







DIRECTIONS (14-15): The given pictograph shows the number of students who applied from different schools for a basketball team. Study the given graph carefully and answer the following questions.



- A. S, P
- B. T. Q
- C. Q, R
- D. None of these

Schools	Number of students who applied	
P	33333333	
Q	3333	
R	33333	
S	3333333333 33	
Tomas and the same	333	
Each 🧑 stands for 6 students.		

Out of total students who applied, if only 12 students were selected for the basketbal team, then how many students were not selected?

A. 20

B. 150

C. 18

D. 168

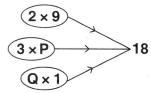
Some of the letters are written below.

P M R S G H K L U D V B O F S W T Z

What fraction of the above letters are vowels?

В.

- D. $\frac{5}{18}$
- Study the given number bond carefully. Find the value of P + Q.



A. 30

B. 18

C. 28

- D. 24
- Which of the following clocks shows 20 minutes past 5:00?













В.



can hold



more than



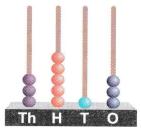
C. 6

D. 8

The sum of place value of digits at thousands place of numbers in the given abacuses is



- B. 6248
- C. 5000
- D. None of these





EVERYDAY MATHEMATICS

- An envelope made by Sakshi is in the shape of a square as shown here. If the total length of the boundary of envelope is 84 cm, then find the length of its one side.
 - A. 21 cm
 - B. 20 cm
 - C. 24 cm
 - D. 42 cm



- There are 1050 strawberries in carton P and 258 more strawberries in carton Q that in carton P. How many total strawberries are there in both the cartons?
 - A. 2100
- B. 2358

- C. 1308
- D. 2448
- 15 pillars were built along a straight road at same distance apart. The distance between the first pillar and the last pillar is 210 m. What is the distance between the third pillar and the seventh pillar?
 - A. 6 cm
- B. 600 cm
- C. 60 cm
- D. 6000 cm
- A teacher asked five students to write 3-digit numbers on the board. The numbers written by the students are shown here.

How many of the numbers written on the board are odd numbers?

A. 3

B. 4

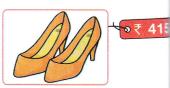
C. 5

- 141 598 375 608 719
 - D. 2
- There are 17 birds in a cage, out of which 12 flew away. What fraction of total birds is still left in the cage?
 - A. $\frac{5}{12}$

B. $\frac{12}{17}$

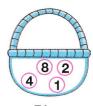
- C. $\frac{5}{17}$
- D. $\frac{7}{12}$
- Ashima bought 2 sarees and 1 pair of heels from the market. How much total amoundoes she need to pay, if the cost of 1 saree and 1 pair of heels are shown here?
 - A. ₹ 1135
 - B. ₹ 1530
 - C. ₹ 1855
 - D. ₹ 1760





Sohan has two baskets full of some number tokens. He likes the numbers that are in red basket. Which of the following numbers is formed by using the digits given in basket which he likes?





A. 8763

C. 7563

B. 6529

D. 6958

Red

Blue

A sugar sack is completely filled with 45 kg of sugar. If the sugar is equally packed into 9 small packets, then find the weight of sugar in each small packet.

A. 6 kg

B. 4 kg

C. 5 kg

D. 7 kg

Amit drew a shape using 7 straight lines and 3 curved lines. What fraction of total lines is straight lines?

A. $\frac{7}{3}$

B. $\frac{3}{10}$

C. $\frac{3}{7}$

D. $\frac{7}{10}$

Rohit feeds 15 dogs each day on different locations. How many dogs does he feed in 2 weeks?

A. 150

B. 250

C. 210

D. 320

ACHIEVERS SECTION

A barrel contains 4 litres of milk in it. If milk from 5 containers of type-P and 7 containers of type-Q are poured in it to fill it completely, then what is the capacity of the barrel?

A. 67 litres

B. 63 litres

C. 65 litres

D. 52 litres





32 Identify the four digit number using the given clues.

- Its ones place digit is 5 less than the greatest 1-digit even number.
- Its tens place digit is hundreds place digit of (852 379).
- Its hundreds place digit is 2 more than its ones place digit.
- Its thousands place digit is the ones place digit of (171 + 821).

A. 2543

B. 3453

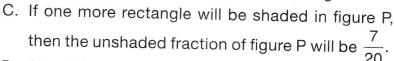
C. 2644

D. 2453

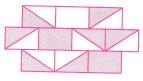


A. The shaded fraction of figure P is $\frac{11}{20}$.









Р



Q

Match the following and select the CORRECT option.

Column-A

P. Place value of digit at tens place in the greatest 4-digit number is

Q. The smallest 4-digit number that can be formed by using the digits 3, 0, 1 and 8 (using each digit exactly once) is

R. The short form of 5000 + 700 + 20 + 9 is

A. $P \rightarrow c$; $Q \rightarrow b$; $R \rightarrow a$

C. $P \rightarrow c$; $Q \rightarrow a$; $R \rightarrow b$

Column-B

a. 5729

b. 90

c. 1038

B. $P \rightarrow b$; $Q \rightarrow c$; $R \rightarrow a$

D. $P \rightarrow b$; $Q \rightarrow a$; $R \rightarrow c$



















A. ₹ 230

🥌 = ₹ 560 and 🖟



B. ₹ 310

-

= ₹ 255, then find the cost of

C. ₹ 245

D. ₹ 325

SPACE FOR ROUGH WORK

















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