

**SOF INTERNATIONAL  
MATHEMATICS OLYMPIAD  
2023-24**

**CLASS  
3**

**QUESTION  
PAPER SET  
A**

**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: Sonia had 80 sweets. She gave 15 sweets to Danish and 15 sweets to Megha. How many sweets are left with her?  
 A. 50      B. 30      C. 60      D. 40  
 As the correct answer is option A, you must darken the circle corresponding to option A on the OMR Sheet.
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.

16. ● (B) (C) (D)

Name:.....

SOF Olympiad Roll No.:..... Contact No.:.....



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# LOGICAL REASONING

1. Select the odd one out.



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

I   B   A   N   R  
1   2   3   4   5

- A. 3, 1, 5, 4, 2      B. 2, 5, 3, 1, 4      C. 2, 3, 4, 1, 5      D. 4, 1, 3, 2, 5

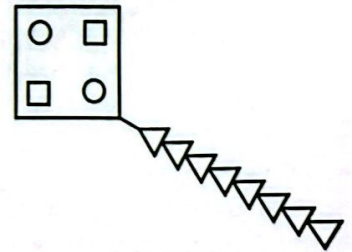
3. How many groups of 3 capsules each can be formed from the given capsules?



- A. 6                      B. 5  
C. 7                      D. 4

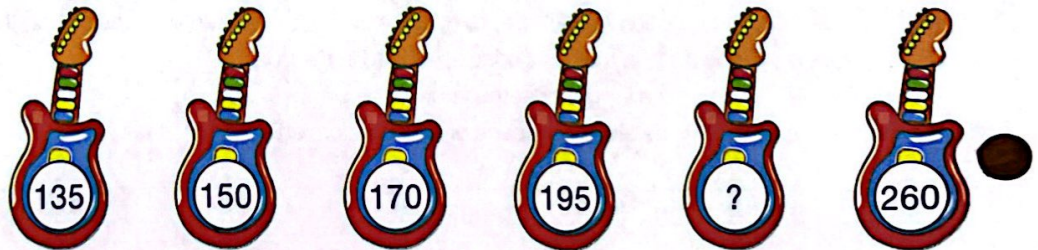
4. Which of the following shapes is missing in the given figure?

- A. Square  
B. Circle  
C. Rectangle  
D. Triangle



5. Find the missing number in the given number pattern.

- A. 200  
B. 220  
C. 225  
D. 215



6. If is called , is called and is called , then \_\_\_\_\_ helps us to protect from rain.

- A.      B.      C.      D.

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SPACE FOR ROUGH WORK



7. If sandwich W and sandwich K are removed from the given arrangement, then sandwich \_\_\_\_\_ is fifth from the left end.



(Left)

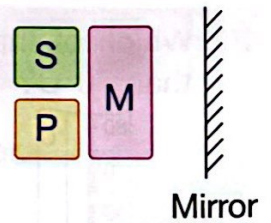
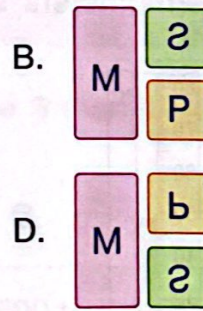
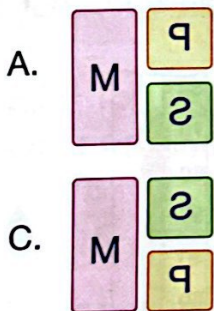
- A. S                      B. R                      C. K                      D. U

8. How many different possible combinations of 1 bicycle and 1 helmet each can be formed from the given bicycles and helmets?

- A. 8  
B. 10  
C. 20  
D. 12



9. Select the CORRECT mirror image of the given figure.



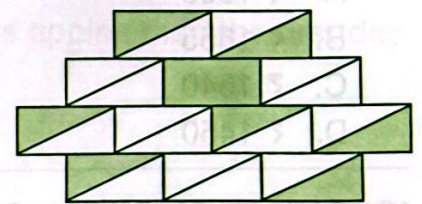
10. If yesterday was Saturday, then fourth day from today will be \_\_\_\_\_.
- A. Wednesday      B. Tuesday      C. Thursday      D. Monday

### MATHEMATICAL REASONING

11. What fraction of the given figure is shaded?

- A.  $\frac{3}{24}$   
C.  $\frac{9}{24}$

- B.  $\frac{8}{24}$   
D.  $\frac{11}{24}$



12. What is the sum of greatest and smallest 4-digit numbers that can be formed by using the given digits (use each digit only once)?

3, 0, 6, 1

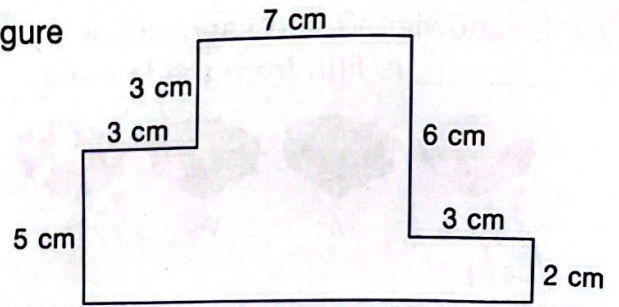
- A. 7666      B. 7337      C. 7670      D. 7346

SPACE FOR ROUGH WORK

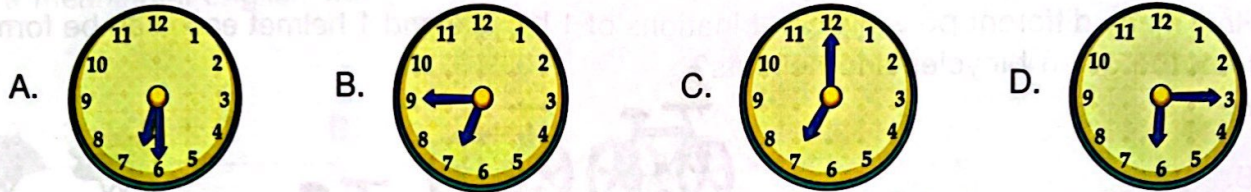


13. Find the total length of boundary of the given figure (not drawn to scale).

- A. 36 cm
- B. 42 cm
- C. 40 cm
- D. 45 cm



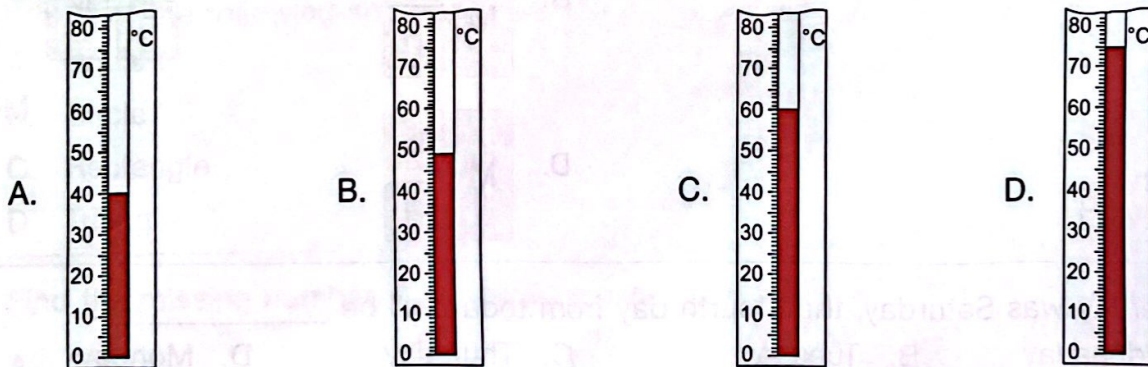
14. Which of the following clocks shows the time 1 hour 15 minutes before 7:30?



15. Which of the following numbers becomes even, if thousands place digit and ones place digit are interchanged?

- A. 5562
- B. 4493
- C. 7734
- D. 7257

16. Which of the following thermometers shows the temperature more than 50°C but less than 70°C?



17. The cost of three items are given below. How much total money is needed to buy all the items?

- A. ₹ 1605
- B. ₹ 1655
- C. ₹ 1540
- D. ₹ 1450



18. Compare and fill the box.

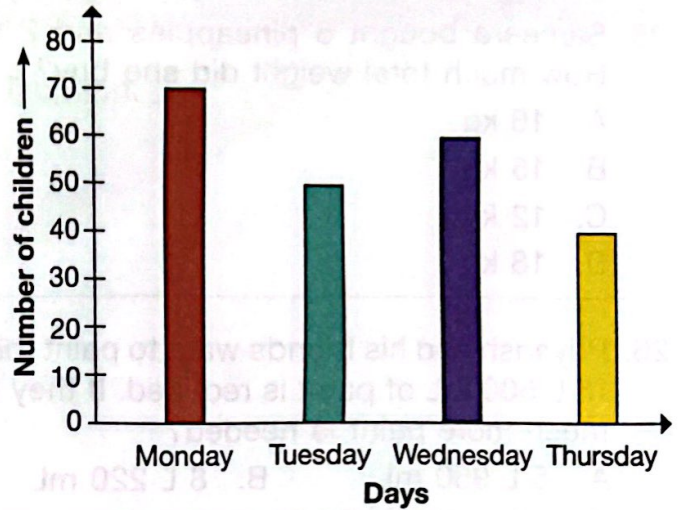
$1579 + 2504 - 978$    $845 + 1840 - 1050$

- A. =
- B. <
- C. >
- D. Can't be determined

SPACE FOR ROUGH WORK



**Direction (19-20) :** The given bar graph shows the number of children who visited the library on four consecutive days. Study the graph carefully and answer the following questions.



19. How many less children visited the library on Wednesday than that on Monday and Tuesday together?

- A. 40
- B. 50
- C. 60
- D. 70

20. If  $\frac{1}{4}$  of the total number of children visiting the library on the four days were boys, then how many total girls visited on these four days?

- A. 165
- B. 55
- C. 145
- D. 90

### EVERYDAY MATHEMATICS

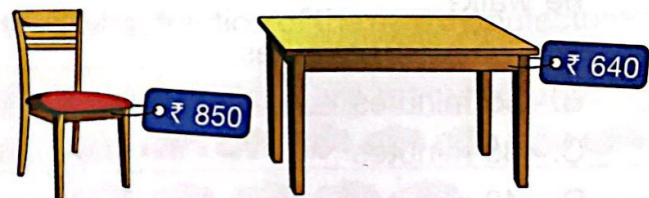
21. Rinki has 15 mangoes in a basket. She gave 6 mangoes to her brother. What fraction of mangoes is left with her?



- A.  $\frac{6}{15}$
- B.  $\frac{6}{9}$
- C.  $\frac{9}{15}$
- D.  $\frac{9}{18}$

22. Mohit bought 2 chairs and 1 table. He gave ₹ 2500 to the shopkeeper. How much money will he get back?

- A. ₹ 280
- B. ₹ 370
- C. ₹ 160
- D. ₹ 315



23. Smriti sold 983 apples on first day. Next day, she sold 120 less apples than the first day. How many apples did she sell on both the days?

- A. 1966
- B. 983
- C. 863
- D. 1846

24. Ali collected 1570 stamps, Rishi collected 1270 stamps and Kamal collected 2185 stamps. Who collected maximum number of stamps?

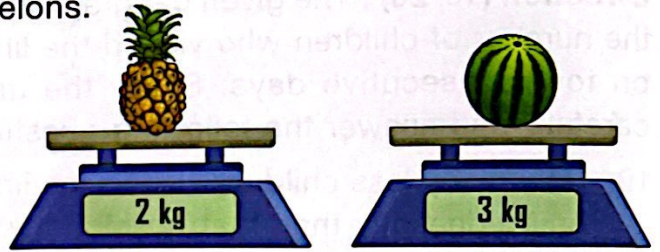
- A. Rishi
- B. Kamal
- C. Ali
- D. Can't be determined

SPACE FOR ROUGH WORK



25. Sameera bought 5 pineapples and 2 watermelons. How much total weight did she buy?

- A. 16 kg
- B. 15 kg
- C. 12 kg
- D. 18 kg



26. Priyansh and his friends want to paint their bicycles. To paint all the bicycles, 15 L 500 mL of paint is required. If they have 7 L 280 mL of paint, then how much more paint is needed?



- A. 5 L 950 mL
- B. 8 L 220 mL
- C. 7 L 520 mL
- D. 8 L 340 mL

27. In a train, there are 1298 first class seats and 2540 second class seats. Find the total number of seats in the train.

- A. 3750
- B. 4150
- C. 3838
- D. 2940

28. Sarthak made the following sign board on the topic "Good food habit". Find the total length of boundary of the board.

- A. 44 cm
- B. 42 cm
- C. 40 cm
- D. 22 cm



29. Manish left his dance academy in the evening at the time shown on the given clock. He walked some distance to reach his home. If he reached home at 7:10 p.m., then for how much time did he walk?

- A. 1 hour 10 minutes
- B. 45 minutes
- C. 35 minutes
- D. 40 minutes



30. A pie was divided into five equal parts. Nysa ate  $\frac{1}{5}$  of the pie. Tony ate  $\frac{2}{5}$  of the pie.

Jenny ate  $\frac{1}{5}$  of the pie. What fraction of the pie was eaten by the children?

- A.  $\frac{4}{5}$
- B.  $\frac{3}{5}$
- C.  $\frac{2}{5}$
- D.  $\frac{1}{5}$

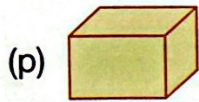
SPACE FOR ROUGH WORK



31. Match the following and select the CORRECT option.

Column-A

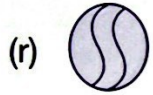
Column-B



(a) Face-1; Vertex-0



(b) Faces-6; Vertices-8



(c) Faces-2; Vertex-1

A. (p)-(c); (q)-(b); (r)-(a)

B. (p)-(c); (q)-(a); (r)-(b)

C. (p)-(b); (q)-(c); (r)-(a)

D. (p)-(b); (q)-(a); (r)-(c)

32. Select the INCORRECT option.

A. The fractions  $\frac{5}{13}, \frac{7}{13}, \frac{9}{13}$  are arranged in ascending order.

B. The fraction of the vowels in the word CREATION is  $\frac{4}{8}$ .

C. In the numbers 1 to 15, the fraction of even numbers to the total numbers is  $\frac{8}{15}$ .

D. None of these

33. The given pictograph shows the number of cars manufactured by a company in the first six months of a year. Study the given pictograph carefully and answer the following questions.

(p) How many more cars were manufactured in January and March together than May?

(q) In the month of April, if 25 cars got damaged, then what fraction of the cars manufactured were not damaged in that month?

(p)

(q)

A. 210

$\frac{75}{120}$

B. 270







$\frac{25}{120}$


C. 340

$\frac{35}{120}$

D. 270

$\frac{95}{120}$

Months	Number of cars manufactured
January	
February	
March	
April	
May	
June	

Each  represents 30 cars.

SPACE FOR ROUGH WORK



34. Identify the 4-digit number.



- Its tens place digit is 5 less than the digit at ones place.
- Its ones place digit is the largest 1-digit even number.
- Its hundreds place digit is the ones place digit of  $(758 - 354)$ .
- Its thousands place digit is the sum of the digits at its tens place and hundreds place.

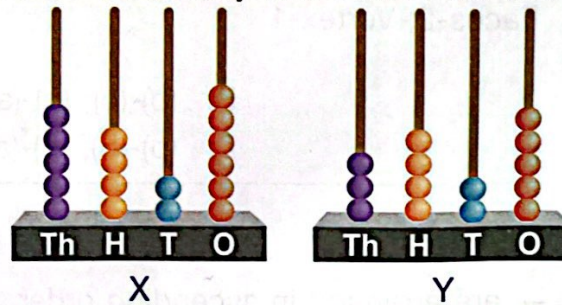
A. 9549

B. 7358

C. 7438

D. 8449

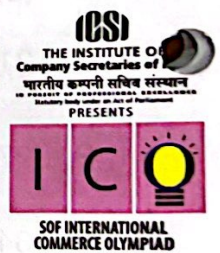
35. Study the given two abacuses carefully and state T for true and F for false.



- (p) The number shown on abacus Y is more than the number shown on abacus X.  
 (q) The expanded form of the number shown on abacus Y is  $3000 + 400 + 20 + 5$ .  
 (r) The number shown on abacus X is an odd number.

	(p)	(q)	(r)
A.	F	T	F
B.	F	T	T
C.	T	T	F
D.	T	F	T

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