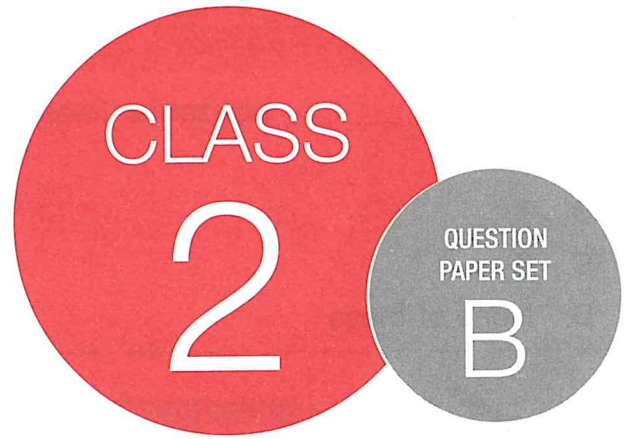


**SOF INTERNATIONAL
MATHEMATICS OLYMPIAD
2019-20**



DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Total Questions: 35 | Time: 1 hr.

Name:.....

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

Guidelines for the Candidate

1. Please check your Name, Class and Section on the OMR sheet provided to you. In case, OMR sheet with your name is missing, please fill in information about yourself in the blank OMR sheet provided before start of exam.
2. Please fill in your **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.

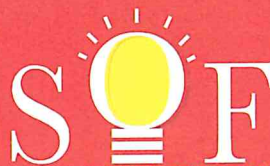
4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
5. There is only ONE correct answer. Choose only ONE option for an answer.
6. To mark your choice of answers by darkening the circles on the OMR Sheet, use **HB Pencil** or **Blue / Black ball point pen**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

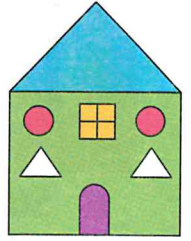








SCIENCE OLYMPIAD FOUNDATION
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LOGICAL REASONING

1. There are _____ horizontal lines in the given figure.

- A. 5
- B. 7
- C. 6
- D. None of these



2. If  is called ,  is called  and  is called , then _____ is used to write on a paper.

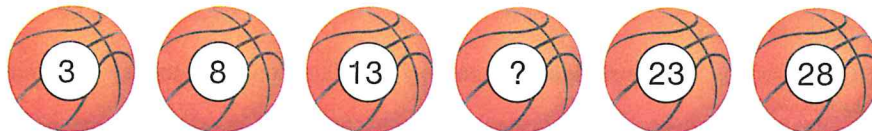
- A. 
- B. 
- C. 
- D. 

3. Which of the following figures is exactly same as the given figure?



- A. 
- B. 
- C. 
- D. 

4. Find the missing number.



- A. 18
- B. 17
- C. 15
- D. 16

5. If yesterday was Wednesday, then day after tomorrow will be _____.

- A. Friday
- B. Tuesday
- C. Monday
- D. Saturday

6. There are _____ equal groups of 4 mangoes each.



- A. 3
- B. 4
- C. 5
- D. 6

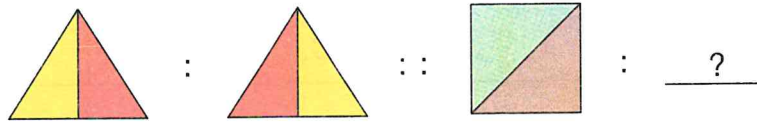
SPACE FOR ROUGH WORK

7. Which joker is 4th to the right of 3rd joker from the left end?



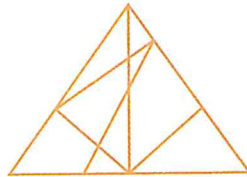
- A. P B. U C. R D. S

8. There is a certain relationship between the pair of figures on either side of ::. Identify the relationship of the given pair and find the missing figure.



- A. B. C. D.

9. Which of the following figures is exactly embedded in the given figure as one of its parts?



- A. B. C. D.

10. Which of the following is the lightest?

- A. B. C. D.

MATHEMATICAL REASONING

11. Which of the given containers can hold maximum water?

- A. Vessel
B. Jug
C. Bottle
D. Can't be determined



SPACE FOR ROUGH WORK

12. Read the given clues carefully and identify the number.

- A. 37
- B. 55
- C. 46
- D. 38

- It is a two digit number.
- It is less than 40 but more than 35.
- Sum of its digits is 10.



13. If $\star + \bigcirc + \bigcirc = 42$ and $\bigcirc = 12$, then the value of \star is ____.

- A. 12
- B. 33
- C. 13
- D. 18

14. The given table shows the amount of money saved by three students.

Ritik	
Kirti	
Kiara	

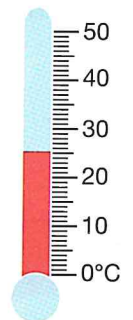
Who saved the maximum amount of money?

- A. Ritik
- B. Kiara
- C. Kirti
- D. Can't be determined

15. Room temperature is 5°C less than the temperature shown on the given thermometer.

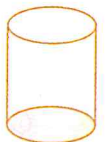
The room temperature is ____.

- A. 34°C
- B. 30°C
- C. 33°C
- D. 20°C



16. The shape of the shaded face of the given solid is ____.

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



SPACE FOR ROUGH WORK

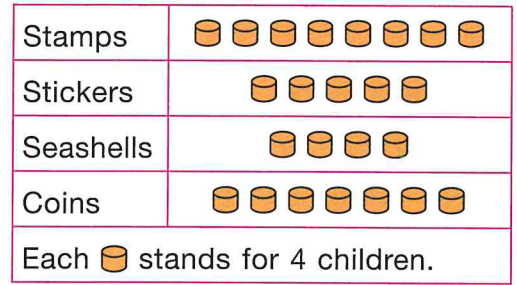
Direction (17-18) : The given picture graph shows the various types of collection that children prefer. Study the graph carefully and answer the following questions.

17. How many children prefer collecting stickers?

- A. 25 B. 26
C. 20 D. 15

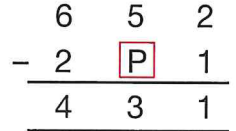
18. Which type of collection is the most popular?

- A. Stamps B. Stickers
C. Seashells D. Coins



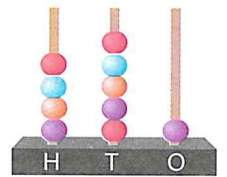
19. Find the value of P.

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



20. Which of the following options shows the number on the abacus?

- A. Four hundred fifty one
B. Four hundred forty one
C. Five hundred forty one
D. Five hundred fifty one



EVERYDAY MATHEMATICS

21. The weight of a football is 342 g and that of a basketball is 289 g. What is the total weight of football and basketball?

- A. 674 g B. 531 g C. 584 g D. 631 g

22. Vijay has 205 seeds. Aanya has 148 seeds. How many more seeds Vijay have than Aanya?

- A. 52 B. 58 C. 63 D. 57

23. Karan had some chocolates. He gave 43 chocolates to his wife and was left with 28 chocolates. How many chocolates did Karan have at the beginning?

- A. 15 B. 78 C. 71 D. 50

24. Sonika had 6 toothpicks of same size. She made a figure using the toothpicks such that it has 4 slanting and 2 standing lines. Which of the following can be her figure?

- A.  B.  C.  D. 

SPACE FOR ROUGH WORK







30. Payal scored 54 points in a quiz. Raj scored 14 points more than Payal. The total points scored by Raj and Payal together are _____.
- A. 99 B. 90 C. 122 D. 89


ACHIEVERS SECTION

31. The given pictograph shows the number of pens sold in 6 months by a shop. Study it carefully and answer the following questions.

(P) How many more pens were sold in August than May?

(Q) In which month, the least number of pens were sold?

Month	Number of pens
April	
May	
June	
July	
August	
September	

Each  stands for 3 pens.

- (P) (Q)
- A. 12 September
- B. 12 May
- C. 18 May
- D. 18 September





32. Match the following and select the correct option.

- | Column-A | Column-B |
|--|---------------------------------------|
| 1. 2 hundreds 3 tens – 4 tens 6 ones = | (p) 989 |
| 2. 389 – 82 – 45 = | (q) 110 |
| 3. Difference between the greatest 3 digit number and smallest 2 digit number is | (r) 262 |
| 4. 1 less than 1 hundreds 1 tens 1 ones = | (s) 184 |
| A. 1 → (q), 2 → (r), 3 → (p), 4 → (s) | B. 1 → (s), 2 → (r), 3 → (p), 4 → (q) |
| C. 1 → (s), 2 → (r), 3 → (q), 4 → (p) | D. 1 → (r), 2 → (s), 3 → (q), 4 → (p) |

33. Kartik buys 3 watermelons, 2 pencil boxes and 4 carrots. How much money does he need to pay?

					
₹25	₹4	₹30	₹45	₹12	₹6
Watermelon	Strawberry	Pencil box	Sketch pen	Mango	Carrot
A. ₹ 178	B. ₹ 196	C. ₹ 159	D. ₹ 173		

SPACE FOR ROUGH WORK

34. If  +  = 96 and  = 12, then find the value of .

A. 30

B. 42

C. 26

D. 28

35. Sneha wants to go to the Mall from her home. She can take two routes.

Route P : Home → Church → Fire station → Mall

Route Q : Home → Airport → Museum → Mall

Which route is shorter and by how much distance?



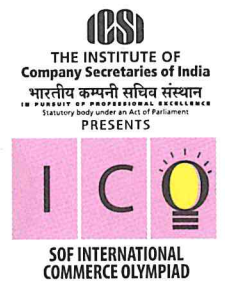
A. Route P, 4 km

B. Route Q, 4 km

C. Route P, 3 km

D. Route Q, 3 km

SPACE FOR ROUGH WORK



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