

SOF INTERNATIONAL MATHEMATICS OLYMPIAD

GUIDELINES FOR THE CANDIDATE

Total Questions : 35 | Time: 1 hr.

- 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)

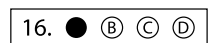
Each question in Achievers Section carries 2 marks, whereas all other questions carry one mark each.

- 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.

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

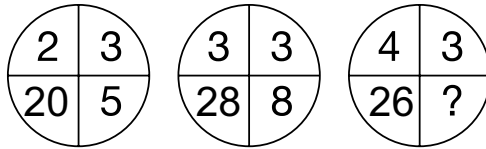
LOGICAL REASONING

1. Arrange the alphabets given below in a meaningful word and identify the category of the word.

O E H S R

- A. Flower B. Animal C. Fruit D. Medicine

2. Find the missing number, if same rule is followed in all the three figures.



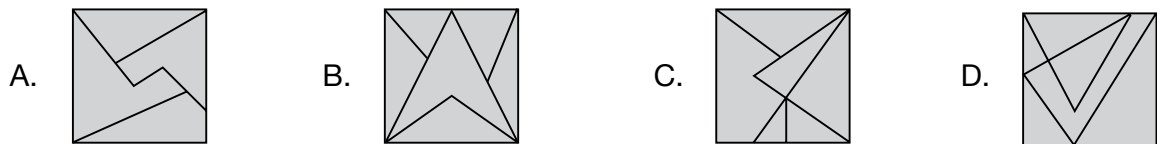
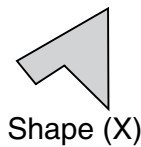
- A. 6 B. 7 C. 9 D. 10

3. Which notebook is 2nd to the right of 6th notebook from the right end?

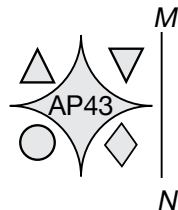


- A. T B. U C. R D. S

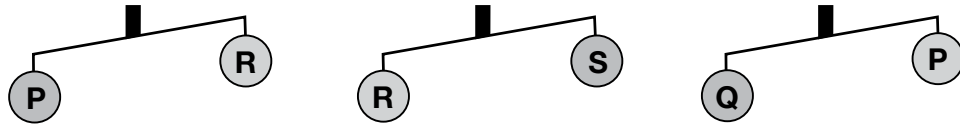
4. In which of the following figures Shape (X) is exactly embedded as one of its parts?



5. Find the mirror image of the given figure, if the mirror is placed along *MN*.

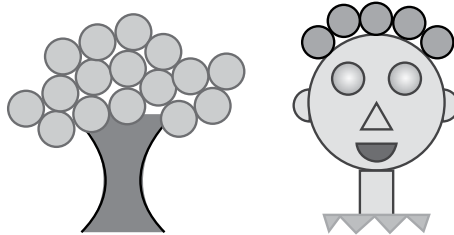


6. Arrange the following from the lightest to the heaviest.



- A. S, R, Q, P B. R, S, P, Q C. R, P, Q, S D. S, R, P, Q

7. How many circles are there in the given figure?



- A. 22 B. 23 C. 24 D. 25

8. Find the word that cannot be formed from the letters of the given word.

ADVENTURE

- A. DATE B. TRUE C. EDIT D. RENT

9. How many possible combinations of 1 pen and 1 pen holder each can be formed from 5 pens and 2 pen holders?

- A. 10 B. 12 C. 15 D. 18

10. Which figure comes next in the given figure pattern?



- A. B. C. D.

MATHEMATICAL REASONING

11. Payal is making a calendar as shown. How many Saturdays will be there in the month shown?

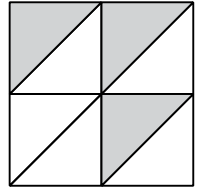
November 20XX						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13

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

12. What fraction of the given figure is shaded?

- A. $\frac{5}{8}$
C. $\frac{7}{8}$

- B. $\frac{3}{8}$
D. $\frac{1}{2}$

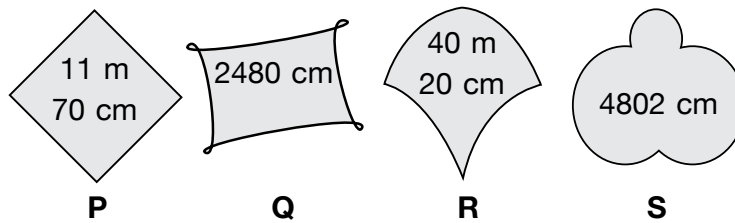


13. Raj is thinking of a 3-digit number. Read the given clues carefully and find which of the following numbers definitely could not be the number he is thinking of ?

- All three digits are different.
- All three digits are greater than 5.

- A. 689 B. 987 C. 989 D. 789

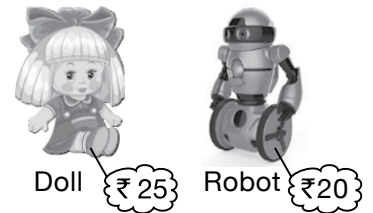
14. Arrange the following measurements in ascending order.



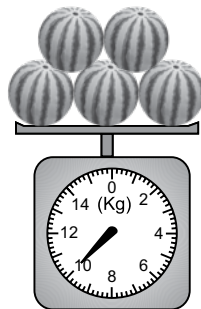
- A. Q, P, S, R B. Q, P, R, S C. P, Q, S, R D. P, Q, R, S

15. What would be the total cost of 6 such dolls and 4 such robots?

- A. ₹ 250
B. ₹ 230
C. ₹ 125
D. ₹ 200



16. What is the weight of 1 watermelon in the given figure?



- A. 3 kg B. 4 kg C. 5 kg D. 2 kg

17. If  = 12, then  is equal to _____.

- A. 24 B. 36 C. 48 D. 40

18. Find the remainder, when 4634 is divided by 8.

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

19. Find $P \times Q$.

- A. 7
B. 6
C. 3
D. 9

$$\begin{array}{r} 39 \boxed{P} 5 \\ - \boxed{Q} 849 \\ \hline 2116 \end{array}$$

20. What is the missing number in the box?

$$\boxed{?} \text{ --- Divide by 6 --- Add 4 --- Multiply by 12 --- } = 204$$

- A. 52 B. 80 C. 82 D. 78
-

EVERYDAY MATHEMATICS

21. There are 152 people in a party. One-fourth of them are males. How many females are there in the party?

- A. 114 B. 124 C. 92 D. 38
-

22. A rabbit jumps on every third stone. Find the number of the stone on which the rabbit lands in its sixteenth jump.

- A. 60th B. 44th C. 48th D. 36th
-

23. Karan drinks 2 L 500 mL of milk everyday. Rahul drinks 925 mL of milk everyday. How much milk do they both drink per day?

- A. 4225 mL B. 3 L 225 mL C. 2 L 225 mL D. 3 L 425 mL
-

24. Atul is 8 years old and his mother is 4 times as old as he is. If his father is 6 years older than his mother, then how old is his father?

- A. 33 years B. 38 years C. 30 years D. 27 years
-

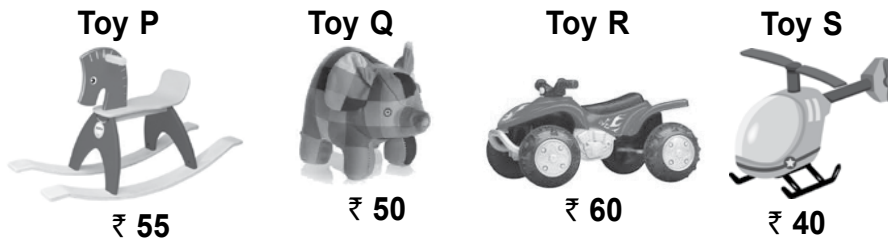
25. A washing machine costs ₹ 2999 and a microwave costs ₹ 1430 more than the washing machine. How much do both items cost altogether?

- A. ₹ 7642 B. ₹ 7240 C. ₹ 8432 D. ₹ 7428
-

26. There are 585 pencils to be shared equally among 9 students. How many pencils will each student get?

- A. 56 B. 65 C. 50 D. 52

27. Ritvik wants to purchase some toys. He has ₹ 145. Which three toys can he buy?



- A. P, Q, S B. P, Q, R C. P, R, S D. Q, R, S

28. A bakery sold 180 muffins, 65 pastries and 1432 cookies in a day. How many total items were sold on that day?

- A. 1186 B. 1654 C. 1677 D. 1250

29. Komal will be 32 years old on her birthday in 2020. How old was she on her birthday in the year 2005?

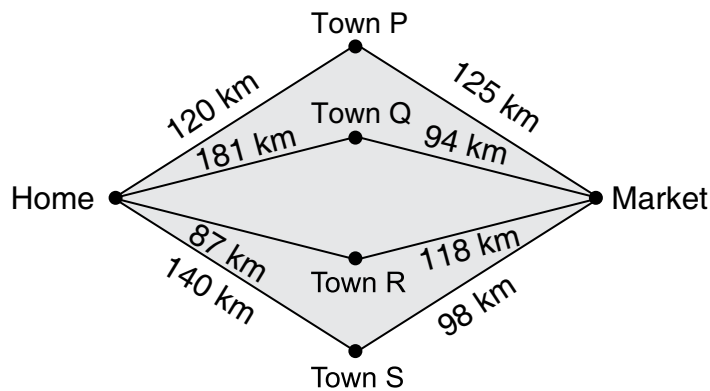
- A. 18 years B. 14 years C. 16 years D. 17 years

30. If 85 poles were erected in 1 row, then how many poles will be erected in 21 such rows?

- A. 1785 B. 1587 C. 1875 D. 1857

ACHIEVERS SECTION

31. The map (not drawn to scale) shows 4 different ways of going from Home to Market. The shortest way of going from Home to Market is through Town ____.

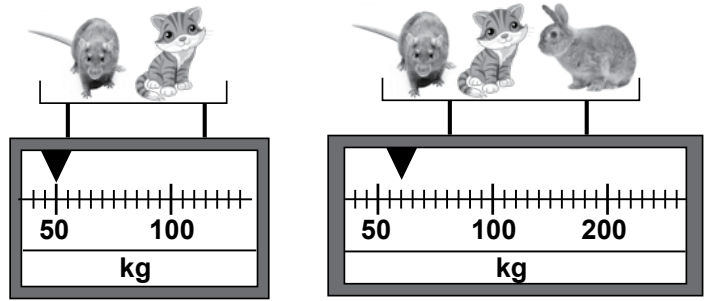


- A. P B. Q C. R D. S

32. If ☀ + ☾ + ☆ = 1528 and ☀ + ☆ + ☆ + ☀ = 948, then find the value of ☾.

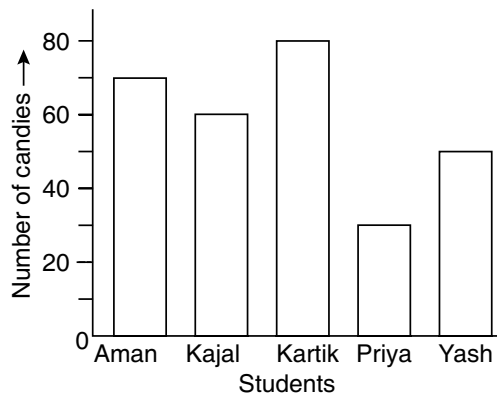
- A. 1450 B. 1550 C. 1504 D. 1054

33. What is the weight of  +  -  ?



- A. 10 kg B. 20 kg C. 30 kg D. 40 kg

34. The given graph shows the number of candies 5 students have.

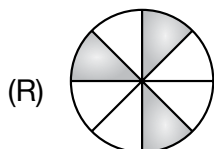
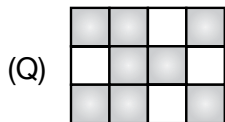
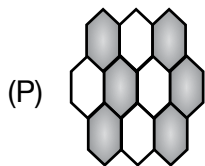


If Kartik gave 30 candies to Priya, then he would have the same number of candies as _____.

- A. Kajal B. Priya C. Yash D. Aman

35. Match the figures given in Column-A with their unshaded fractions given in Column-B.

Column-A



Column-B

(a) $\frac{4}{12}$

(b) $\frac{5}{8}$

(c) $\frac{4}{10}$

- A. (P) → (a), (Q) → (c), (R) → (b)
 B. (P) → (b), (Q) → (c), (R) → (a)
 C. (P) → (c), (Q) → (a), (R) → (b)
 D. (P) → (c), (Q) → (b), (R) → (a)