

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)

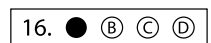
Each question in Achievers Section carries 2 marks, whereas all other questions carry one mark each.

- 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.

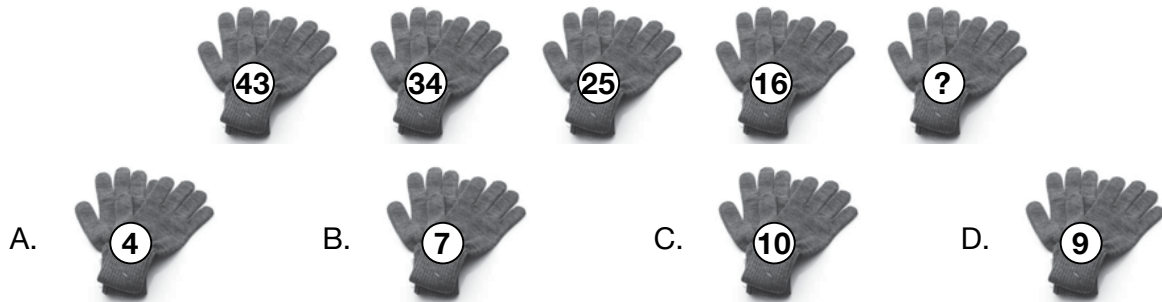


- 7. Rough work should be done in the blank space provided in the booklet.
8. Return the OMR Sheet to the invigilator at the end of the exam.
9. Please fill in your personal details in the space provided on this page before attempting the paper.

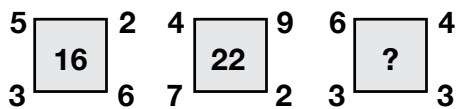
Name:.....
Section:..... SOF Olympiad Roll No.:..... Contact No.:.....

LOGICAL REASONING

1. Which of the following figures will continue the pattern given below?

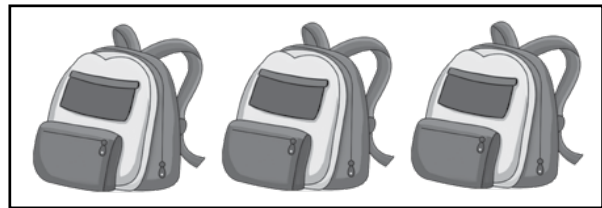
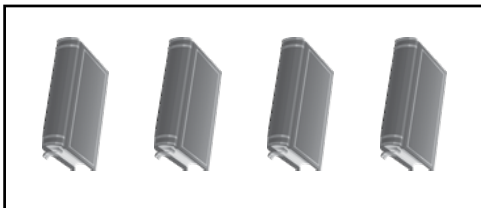


2. Find the missing number, if same rule is followed in all the three figures.



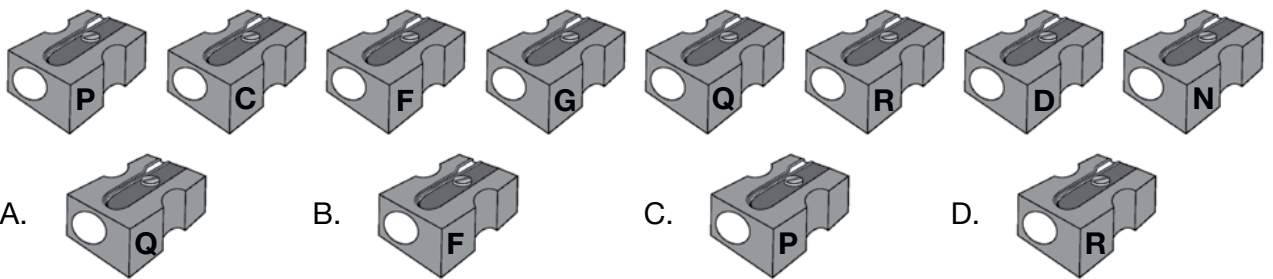
- A. 16 B. 15 C. 18 D. 20

3. How many possible combinations of 1 book and 1 bag each can be formed from the given collection of books and bags?



- A. 8 B. 12 C. 6 D. 7

4. If sharpeners C and R are removed from the given arrangement, then which sharpener is sixth from the right end?



5. I have 1 circular face. I have a curved face also. Birthday caps often look like me. Who am I?



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



- A.  B.  C.  D. 

7. Find the word that can be formed from the letters of the given word.

ASPIRANTS

- A. TURN B. TRAIN C. MARS D. TONE

8. If 'pink' is called 'red', 'red' is called 'black', 'black' is called 'white' and 'white' is called 'blue', then what is the colour of apple?

- A. blue B. black C. pink D. white

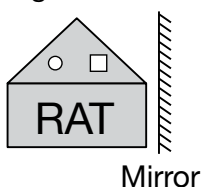
9. Read the following informations carefully.




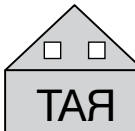
- Nitya is older than Kavya.
- Kavya is older than Mishti.
- Aarti is the youngest.
- Rashi is the oldest.

Who will be in second place, if we arrange the girls in descending order according to their ages?

- A. Nitya B. Kavya C. Mishti D. Rashi

10. Find the mirror image of the given figure.



- A.  B.  C.  D. 

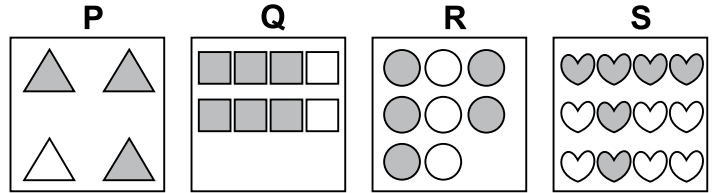
MATHEMATICAL REASONING

11. The difference between 624 tens and ? is 3328. What is the number in the box?

- A. 2912 B. 2000
C. 2104 D. 7016

12. Which of the following sets has $\frac{3}{8}$ of its contents unshaded?

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



13. Find the missing number.

$$321 \times 9 + \underline{\quad ? \quad} \times 9 = 386 \times 9$$

- A. 82
- B. 72
- C. 65
- D. 56

14. What is the sum of all the even numbers between 60 and 80?

- A. 770
- B. 630
- C. 800
- D. 710

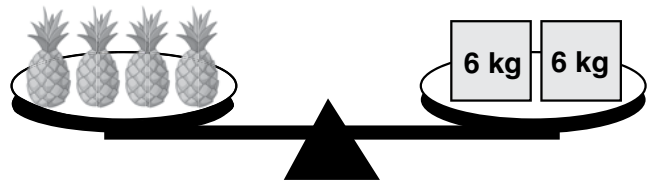
15. Arrange the following numbers from the smallest to the greatest.

5849, 5489, 5498

- A. 5489, 5849, 5498
- B. 5489, 5498, 5849
- C. 5498, 5489, 5849
- D. 5498, 5849, 5489

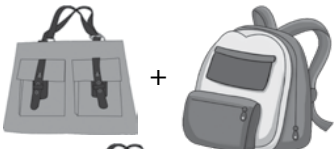
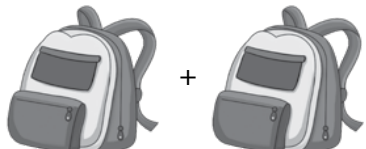

16. What is the weight of a pineapple?

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



17. The sum of two numbers is 320. The smaller number is 18 more than 94. What is the greater number?

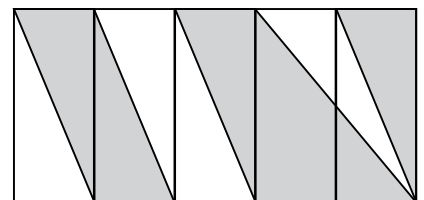
- A. 115
- B. 210
- C. 220
- D. 208

18. If  = ₹383 and  = ₹426, then how much does  cost?

- A. ₹ 170
- B. ₹ 164
- C. ₹ 142
- D. ₹ 156

19. What fraction of the given figure is unshaded?

- A. $\frac{2}{5}$
- B. $\frac{3}{5}$
- C. $\frac{7}{10}$
- D. $\frac{4}{5}$



20. Select the INCORRECT option.

A. 854 cm = 8 m 54 cm

B. 805 cm = 8 m 50 cm

C. 891 cm = 8 m 91 cm

D. 841 cm = 8 m 41 cm

EVERYDAY MATHEMATICS

21. Karuna packed 126 cherries in 9 jars equally. Find the number of cherries in each jar.

A. 11

B. 12

C. 14

D. 15

22. Radha pour $\frac{1}{6}$ cup of water in a jar. Then she mixed in $\frac{3}{6}$ cup of water more. Now how much water is in the jar?

A. $\frac{4}{6}$ cup

B. $\frac{5}{6}$ cup

C. $\frac{9}{6}$ cups

D. 1 cup

23. The distance from the mall to the museum is 82 km and from the museum to the airport is 65 km. How far did Kanika travel, if she drove from the mall to the museum and then to the airport?

A. 119 km

B. 165 km

C. 147 km

D. 149 km

24. A movie began at 7:50 p.m. and finished at 11:10 p.m. How long did the movie last?

A. 2 hours 50 mins

B. 3 hours 20 mins

C. 3 hours 30 mins

D. 2 hours 30 mins

25. Sahil collects 286 stamps on the first day. Next day, he collects 179 stamps less than the first day. How many stamps does he collect the next day?

A. 170

B. 107

C. 106

D. 160

26. Runs scored by batsman P is 9547 and batsman Q is 6332. How many less runs did batsman Q score than batsman P?

A. 3215

B. 3512

C. 1523

D. 3521

27. A factory produces 1350 bolts in 15 days. If it produces the same number of bolts each day, then how many bolts will it produce in 1 day?

A. 110

B. 75

C. 90

D. 71

28. One box of fruits contains 283 mangoes. How many mangoes does 4 such boxes contain?

A. 1693

B. 1132

C. 1048

D. 963

29. Sonika rented a dress for ₹ 120 a day. She used the dress for 1 week. After paying for the rental of the dress, she had ₹ 240 left. How much money she had at first?

A. ₹ 1050

B. ₹ 1120

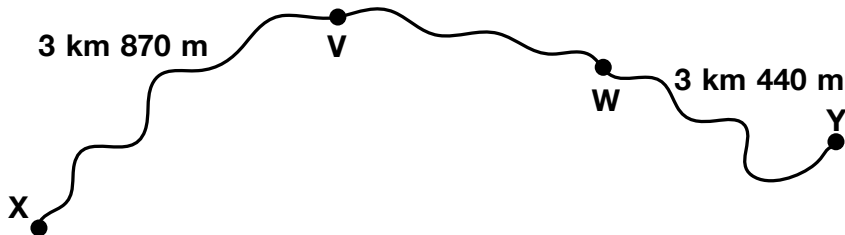
C. ₹ 840

D. ₹ 1080

30. There are 48 eggs. Only $\frac{1}{4}$ of them broke. How many eggs remained unbroken?
- A. 36 B. 40 C. 32 D. 42

ACHIEVERS SECTION

31. If the total distance from X to Y is 8 km 325 m, then the distance between V and W is _____.








- A. 1 km 150 m B. 1 km 15 m C. 2 km 15 m D. 1 km 115 m

32. Find the missing number in the box.

$$\boxed{?} \rightarrow \boxed{\div 8} \rightarrow \boxed{+ 6} \rightarrow \boxed{\times 12} \rightarrow \boxed{- 87} = \boxed{957}$$

- A. 618 B. 624 C. 728 D. 648

33. The pictograph shows the number of cars sold by a company in the last four years.

Cars sold by the company	
Year	Cars
2006	
2007	
2008	
2009	
Each  represents 5 cars.	

How many less cars were sold in the year 2006 than 2007 and 2009 together?


- A. 25 B. 10 C. 5 D. 20

34. Mohit has a favourite 4-digit number. Read the clues and identify the number.

- Every digit is different.
- The last 2 digits are the same as the odd number just after 79.

- The sum of the first 3 digits is 16.
- The digit at hundred's place stands for 30 tens.

A. 3581 B. 5381 C. 5479 D. 4579

35. The weight of  is _____ kg.

- A. 15
- B. 7
- C. 10
- D. 19

