

## QUESTIONS

**Direction (1-6):** In each of the following questions, choose the missing term to complete the given series.

1. 1, 4, 2, 8, 6, 24, 22, 88, ?  
(a) 86 (b) 98 (c) 90 (d) 154
2. 18, 24, 21, 27, 7, 30, 27  
(a) 33 (b) 24 (c) 30 (d) 21
3. 1, 2, 6, 24, ?, 720  
(a) 60 (b) 95 (c) 120 (d) 150
4. 0, 3, 8, 15, 24, 35, 48, 63, ?  
(a) 83 (b) 98 (c) 79 (d) 80
5. 5, 6, 9, 14, 21, 30, 41, ?  
(a) 21 (b) 54 (c) 61 (d) 72
6. 2, 1, ?, 9, 90, 89, 890  
(a) 10 (b) 8 (c) 7 (d) 6

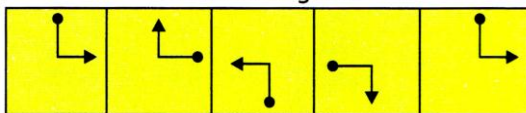
**Direction (7-10):** In each of the following questions, one term in the number series is wrong. Find out the wrong term.

7. 24, 27, 31, 33, 36, 39, 42  
(a) 24 (b) 27 (c) 31 (d) 33
8. 1, 2, 4, 8, 16, 32, 64, 98  
(a) 16 (b) 98 (c) 4 (d) 64
9. 2, 4, 6, 10, 14, 28, 30  
(a) 4 (b) 10 (c) 14 (d) 30
10. 125, 126, 124, 127, 123, 130  
(a) 124 (b) 127 (c) 123 (d) 130

**Direction (11-14):** In each of the following questions, there is a series of five figures. In order to continue the series, choose a figure from the options that could be the next term of the series.

11.

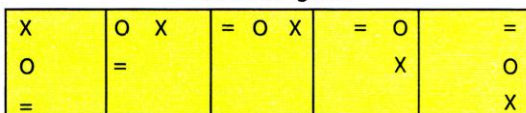
Problem Figures



- (a) (b) (c) (d)

12.

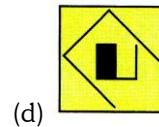
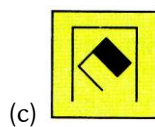
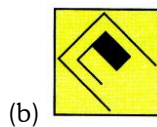
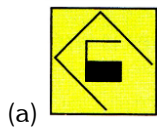
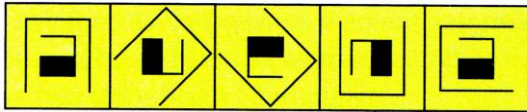
Problem Figures



- (a) (b) (c) (d)

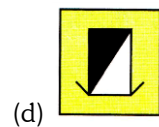
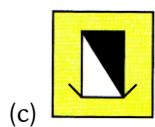
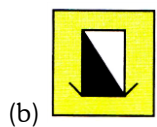
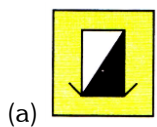
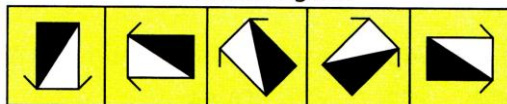
13.

Problem Figures



14.

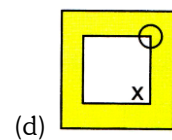
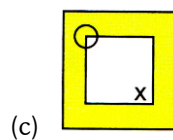
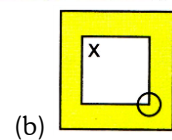
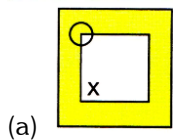
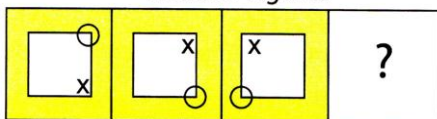
Problem Figures



**Direction (15-18):** In each of the following questions, there is a series of problem figures with one figure as missing. Choose the missing figure from the four options.

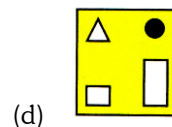
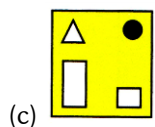
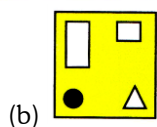
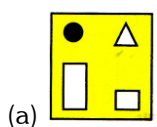
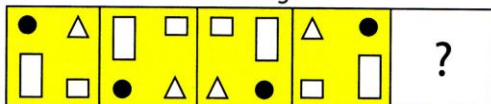
15.

Problem Figures



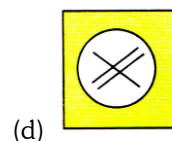
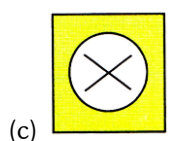
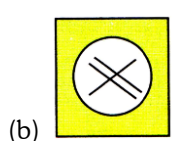
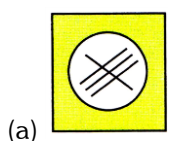
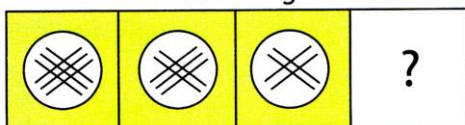
16.

Problem Figures

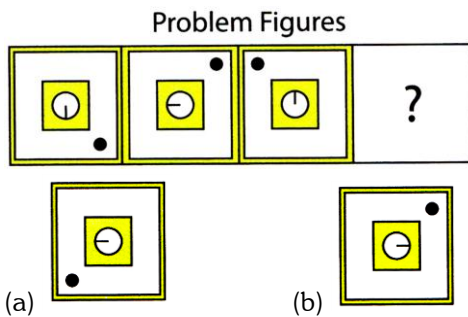


17.

Problem Figures

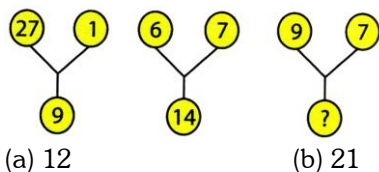


18.

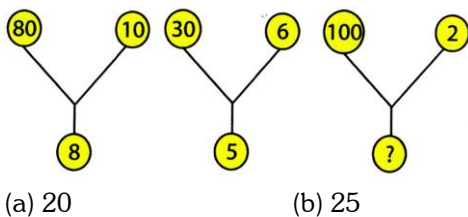


**Direction (19-28):** In each of the following questions, identify the pattern and find out the missing character.

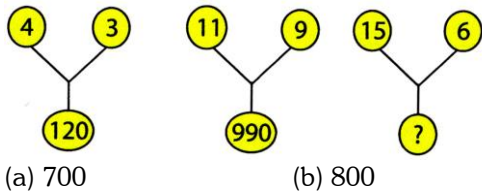
19.



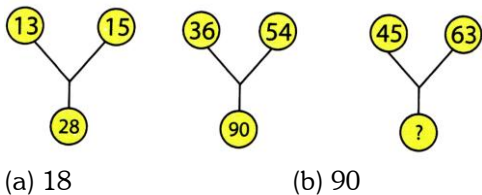
20.



21.



22.

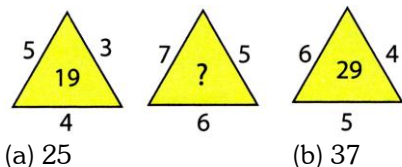


23.

6	11	25
8	6	16
12	5	?

- (a) 16 (b) 18 (c) 9 (d) 10

24.



25.

3	4	8	4
2	5	4	6
4	5	9	?

- (a) 8 (b) 9 (c) 10 (d) 11

26.

A	D	H
F	I	M
?	N	R

- (a) K (b) N (c) O (d) P

27.

Z	W	S
R	O	?
J	G	C

- (a) J (b) T (c) L (d) K

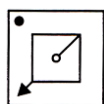
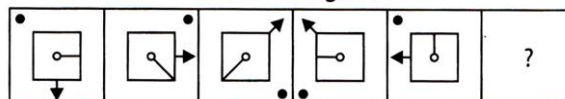
28.

P	S	?
O	R	U
M	P	S

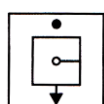
- (a) I (b) L (c) O (d) V

29. Select a figure from the options which will continue the same series as established by the Problem Figures.

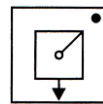
Problem Figures



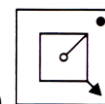
(a)



(b)



(c)



(d)

30.

Find the missing number, if a certain rule is followed in all the three figures.

7	2	9	1	5	-2
42	3	18	2	?	-3

- (a) -30 (b) 13 (c) 18 (d) 30

31.

Find the missing number in the given series.



- (a) 32 (b) 60 (c) 62 (d) 64

32.

Find the missing number, if a certain rule is followed row-wise or column-wise.

5	5	2
2	4	1
8	3	10
40	30	?

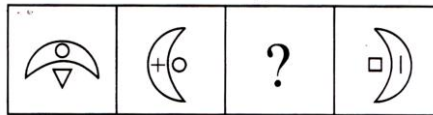
- (a) 10 (b) 12 (c) 13 (d) 20

(SOF NCO 2016)

(SOF NCO 2016)

33. Select a figure from the options which will substitute the (?) so that a series is formed by the Problem Figures.  
(SOF NSO 2016)

Problem Figures



- (a) (b) (c) (d)

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

(SOF IMO 2016)



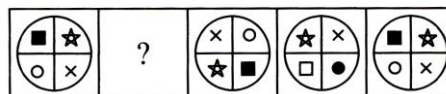
- (a) 38 (b) 36 (c) 12 (d) 15
35. Find the next term in the given series.

(SOF IMO 2016)

PMT, OOQ, NQN, MSK, ?

- (a) LWI (b) LVH (c) LVI (d) LUH
36. Which of the following figures will complete the given figure series?

(SOF IMO 2016)

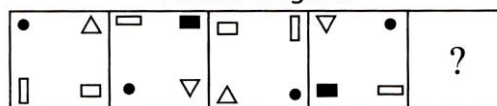


- (a) (b) (c) (d)

37. Select a figure from the options which will continue the same series as established by the Problem Figures.

(SOF IMO 2016)

Problem Figures



- (a) (b) (c) (d)

38. Find the missing number in the given series.

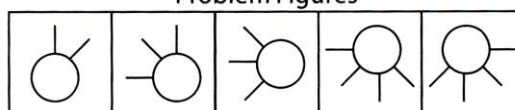
(SOF NCO 2017)

86, 88, 42, 44, 20, 22, ?

- (a) 9 (b) 15 (c) 18 (d) 16
39. Select a figure from the options which will continue the same series as established by the Problem Figures.

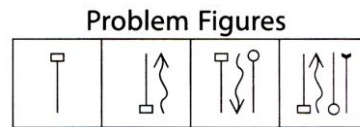
(SOF NCO 2017)

Problem Figures



- (a) (b) (c) (d)

40. Select a figure from the options which will continue the same series as established by the Problem Figures.  
(SOF NSO 2017)



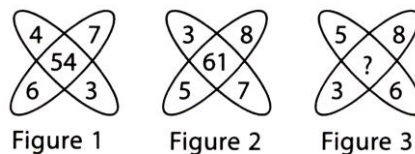
41. Find the missing number, if a certain rule is followed either row-wise or column-wise.

(SOF NSO 2017)

72	?	225
4	3	1
2	1	2
0	5	6

- (a) 173 (b) 153 (c) 182 (d) 142  
42. Find the missing number, if the same rule is followed in all the three figures.

(SOF IMO 2017)



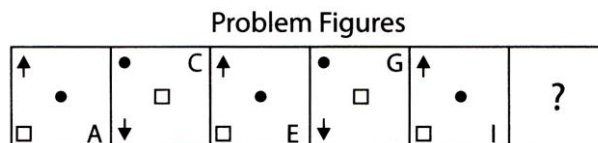
- (a) 52 (b) 54 (c) 64 (d) 70  
43. Select a term from the options which will continue the given series.

(SOF IMO 2017)

B35Y, D30W, F25U, H20S, \_\_\_\_ ?

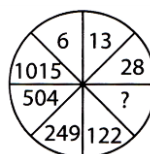
- (a) I25S (b) I20R (c) J15Q (d) J15R  
44. Select a figure from the options which will continue the same series as established by the Problem Figures.

(SOF IMO 2017)



45. Find the missing number.

(SOF IMO 2017)








- (a) 46 (b) 48 (c) 59 (d) 68

ANSWER - KEY				
<b>1.</b> A	<b>2.</b> B	<b>3.</b> C	<b>4.</b> D	<b>5.</b> B
<b>6.</b> A	<b>7.</b> C	<b>8.</b> B	<b>9.</b> B	<b>10.</b> D
<b>11.</b> C	<b>12.</b> B	<b>13.</b> D	<b>14.</b> D	<b>15.</b> A
<b>16.</b> A	<b>17.</b> D	<b>18.</b> D	<b>19.</b> B	<b>20.</b> C
<b>21.</b> C	<b>22.</b> C	<b>23.</b> A	<b>24.</b> C	<b>25.</b> D
<b>26.</b> A	<b>27.</b> D	<b>28.</b> D	<b>29.</b> C	<b>30.</b> D
<b>31.</b> B	<b>32.</b> A	<b>33.</b> B	<b>34.</b> D	<b>35.</b> D
<b>36.</b> B	<b>37.</b> A	<b>38.</b> A	<b>39.</b> C	<b>40.</b> A
<b>41.</b> B	<b>42.</b> B	<b>43.</b> C	<b>44.</b> C	<b>45.</b> C



## EXPLANATIONS

1. (a); The pattern is  $\times 4, -2, \times 4, -2, \dots$ . So,  $88 - 2 = 86$
2. (b); The pattern is  $+ 6, -3, + 6, -3, \dots$ . So,  $27 - 3 = 24$
3. (c); The pattern is  $\times 2, \times 3, \times 4, \dots$   
 $\therefore$  Missing number  $= 24 \times 5 = 120$
4. (d); The given sequence is  $1 \times 1 - 1 = 0, 2 \times 2 - 1 = 3, 3 \times 3 - 1 = 8, \dots$
5. (b); The pattern is  $+1, +3, +5, +7, +9, \dots$
6. (a); The pattern is  $-1, \times 10, -1, \times 10, -1, \times 10, \dots$
7. (c); Each next term in the series is 3 more than the preceding term. So the wrong term is 31 as  $27 + 3 = 30$
8. (b); Each term  $= 2 \times$  Previous term
9. (b) The pattern is  $\times 2, +2, \times 2, +2, \dots$ . So,  $2 \times 2 = 4, 4 + 2 = 6, 6 \times 2 = 12, \dots$
10. (d); The pattern is  $+1, -2, +3, -4, +5$   
 $\therefore 123 + 5 = 128$ . So, 130 is the wrong term.
11. (c); In each next step, the pin rotates  $90^\circ$  CW and the arrow rotates  $90^\circ$  ACW.
12. (b); Each element moves - step clockwise.
13. (d); The outer cup shaped element rotates  $45^\circ$  clockwise (CW) and  $90^\circ$  CW alternately. The inner element rotates  $90^\circ$  CW.
14. (d); In each next step, the figure  rotates  $90^\circ$  CW and  $45^\circ$  CW alternately.
15. (a); In each step, the cross moves to the adjacent corner (of the square) in ACW direction and the circle moves to the adjacent corner in CW direction.
16. (a);  and  are moving CW while  and  are moving ACW one step each. So next figure is in option (a).
17. (d); In one step, a line segment is removed from one set of slanting lines and in the next step a line segment is removed from the other set of slanting lines.
18. (d); In each step, the central element (comprising of the circle and a radius) rotates  $90^\circ$  CW while the small black circle moves to the adjacent corner of the square in ACW direction.
19. (b);  $\frac{27 \times 1}{3} = 9; \frac{6 \times 7}{3} = 14; \frac{9 \times 7}{3} = 21$
20. (c);  $80 \div 10 = 8; 30 \div 6 = 5; 100 \div 2 = 50$
21. (c); The given pattern is:  $4 \times 3 = 12, 12 \times 10 = 120; 11 \times 9 = 99, 99 \times 10 = 990$   
Then  $15 \times 6 = 90, 90 \times 10 = 900$
22. (c); The pattern is :  $13 + 15 = 28,$   
 $36 + 54 = 90$ . Then  $45 + 63 = 108$
23. (a); 1st row:  $(6 \div 2) + (11 \times 2) = 25$   
2nd row:  $(8 \div 2) + (6 \times 2) = 16$   
So, missing number in the 3rd row  
 $= (12 \div 2) + (5 \times 2) = 16$
24. (c); The pattern is :  $5 \times 3 + 4 = 19,$   
 $6 \times 4 + 5 = 29$   
and then,  $7 \times 5 + 6 = 41$
25. (d); The given pattern is:  $(3 \times 4) - 8 = 4,$   
 $(2 \times 5) - 4 = 6$ . Then  $(4 \times 5) - 9 = 11$
26. (a); The letters in the second and third rows are five steps ahead of corresponding letters in the first and second rows respectively.
27. (d); In each column, the first and second letters are 3 steps and 4 steps ahead of their next letters respectively.
28. (d); Consider row-wise.
29. (c) Not Available
30. (d) Not Available
31. (b) Not Available



- 32.** (a) Not Available
- 33.** (b) Not Available
- 34.** (d) Not Available
- 35.** (d) Not Available
- 36.** (b) Not Available
- 37.** (a) Not Available
- 38.** (a) Not Available
- 39.** (c) Not Available
- 40.** (a) Not Available
- 41.** (b) Not Available
- 42.** (b) Not Available
- 43.** (c) Not Available
- 44.** (c) Not Available
- 45.** (c) Not Available