



NATIONAL TALENT SEARCH EXAMINATION
(NTSE-2017) STAGE -1
ODISHA STATE : MAT

Date: 00/00/2016

Max. Marks: 50

SOLUTIONS

Time allowed: 45 mins

q.(1 – 3) Complete the series.

1. gfe _ ig _ eii _ fei _ gf _ ii

- (A) eifgi (B) figie (C) ifgie (D) ifge

Ans. (C)

Sol. gfe i ig f eii g fei i gf e ii

2. C, A, F, X, I, V, L, T, O??

- (A) O, P (B) P, Q (C) R, R (D) S, R

Ans. (C)

Sol.
$$\begin{array}{cccccccc} & -2 & & -2 & & -2 & & -2 \\ & \swarrow & \searrow & \swarrow & \searrow & \swarrow & \searrow & \swarrow \\ C & Z & F & X & I & V & L & T & O & R & R \\ & \swarrow & \searrow & \swarrow & \searrow & \swarrow & \searrow & \swarrow & \searrow & \swarrow & \searrow \\ & +3 & & +3 & & +3 & & +3 & & +3 & \end{array}$$

3. 5824, 5242, ?, 4247, 3823

- (A) 4467 (B) 4718 (C) 4856 (D) 5164

Ans. (B)

Sol.
$$\begin{array}{cccccc} 5824, & 5242, & 4718, & 4247, & 3823 \\ \underbrace{\hspace{1.5cm}}_{-582} & \underbrace{\hspace{1.5cm}}_{-524} & \underbrace{\hspace{1.5cm}}_{-471} & \underbrace{\hspace{1.5cm}}_{-424} & \end{array}$$

Q. (4 – 6) : A, B, C, D, E, F and G are sitting in a row facing North. F is to the immediate right of E. E is 4th to the right of G. C is the neighbour of B and D. Person who is third to the left of D is at one of the ends.

4. Who are to the left of C?

- (A) Only B (B) G, B and D (C) G and B (D) D, E, F and A

Ans. (C)

Sol. GBCDEFA

5. Who are the neighbours of B?

- (A) C and D (B) C and G (C) G and F (D) C and E

Ans. (B)

Sol. GBCDEFA

6. Which of the following statements is not true?

- (A) E is to the immediate left of D (B) A is at one of the ends
(C) G is to the immediate left of B (D) F is second to the right of D

Ans. (A)

Sol. GBCDEFA

7. At the end of a meeting, the ten people present all shake hands with each other once. How many handshakes will there be altogether?

- (A) 10 (B) 45 (C) 9 (D) 25

Ans. (B)

Sol. $\frac{n(n-1)}{2} = \frac{10 \times 9}{2} = 45$

Q.(8-10) : You are given alphabates from A toZ. Find out which ofthe letter-series follows the given rule.

8. Rule : The letter are not according to a general rule.

- (A) CEGIKM (B) MORTVX (C) PRTVXZ (D) ACEGIK

Ans. (B)

Sol. +2, +2, +2, +2, +2, except option (B)

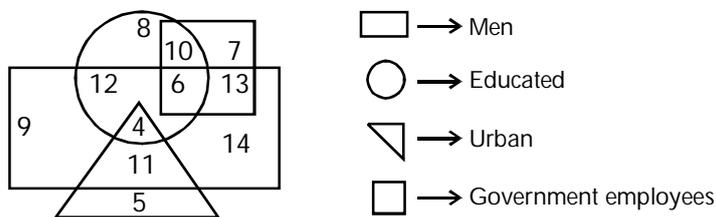
9. Rule : Number of letters skipped in between adjacent letters in the series is odd.

- (A) EIMQV (B) FIMRX (C) BDHLR (D) MPRUX

Ans. (C)

Sol. B ① D ③ H ③ L ⑤ R

Q.(10-11) : In the following diagram rectangle represents men, triangle represents educated, circle represents urban and square represents government empolyees.



10. Which one of the following number represents the educated men but not urban?

- (A) 9 (B) 5 (C) 4 (D) 11

Ans. (D)

Sol. By observation

11. Which one of the following represents women who are urban as well as government empolyee?

- (A) 7 (B) 13 (C) 10 (D) 6

Ans. (C)

Sol. By observation

Q.(12-14) : Find out the alternative which will replace the question (?) mark.

12. REASON : SFBTPO :: THINK : ?

- (A) SGHMJ (B) UIJOL (C) UHNKI (D) UJKPM

Ans. (B)

Sol. Pattern : +1, +1, +1, +1, +1,

19. A number consists of two digits. If the digits interchange places and the new number is added to the original number, then the resulting number will definitely be divisible by :

- (A) 3 (B) 5 (C) 9 (D) 11

Ans. (D)

Sol. $[10x + y] + [10y + x] = 11(x + y)$

20. If $A = x\%$ of y and $B = y\%$ of x , then which of the following is true?

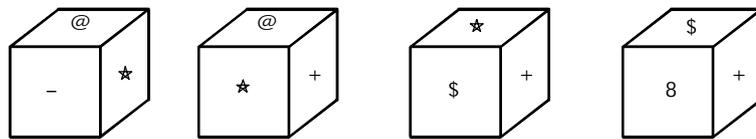
- (A) $A = B$ (B) $A < B$ (C) $A > B$ (D) None of these

Ans. (A)

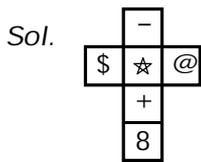
Sol. $A = \frac{x}{100} \times y$, $B = \frac{y}{100} \times x$ so $A = B$

21. Four positions of a die are shown. Which symbol or number will be on the face opposite to the face with symbol. (star) ?

- (A) @
(B) \$
(C) 8
(D) +

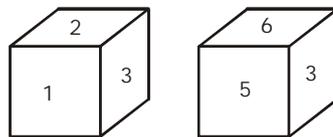


Ans. (C)

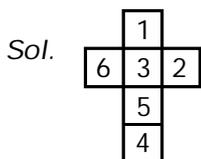


22. Two positions of a die are shown. Which digit will appear on the face opposite to the face with number 4 ?

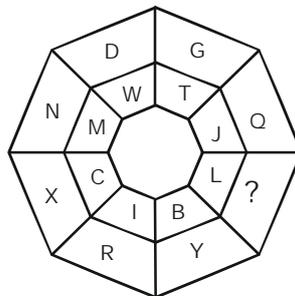
- (A) 3
(B) 5
(C) 6
(D) 2



Ans. (A)



23. Which letter represents the question mark ?



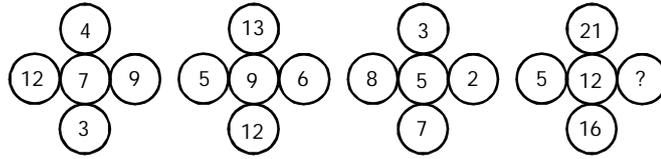
- (A) M (B) O (C) Q (D) R

Ans. (B)

Sol. Opposite alphabets

24. Which number replaces the questions mark ?

- (A) 4
- (B) 6
- (C) 8
- (D) 12

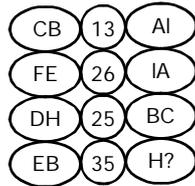


Ans. (B)

Sol. logic - sum of outer number ÷ 4

25. Which letter replaces the question mark ?

- (A) I
- (B) T
- (C) R
- (D) G



Ans. (D)

Sol. logic C B - A I
 3 2 19 = 32 - 19 = 13

26. If A3P means A is the mother of P ; A4P means A is the brother of P; A9P means A is the husband of P and A5P means A is the daughter of P, then which of the following means that K is the mother-in- law of M?

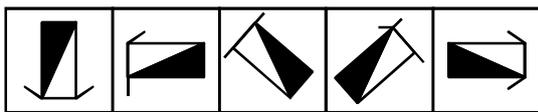
- (A) M9N3K4J (B) M9N5K3J (C) K5J9M3N (D) K3J9N4M

Ans. (B)

Sol. $M^{\oplus} = N^{\circ} - P$
 K°

Q (27-29) Select a figure from amongst the Answer Figures which will continue the same series as established by the five problem Figures.

27. Problem Figures :



- (A) 1 (B) 2

Ans. (C)

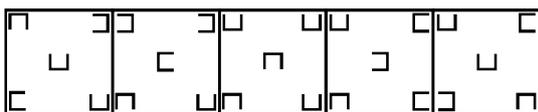
Sol. By Observation

Answer Figure :



- (1) (2) (3) (4)
- (C) 3 (D) 4

28. Problem Figures :

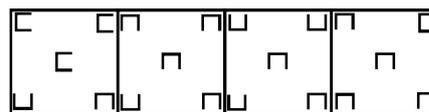


- (A) 1 (B) 2

Ans. (A)

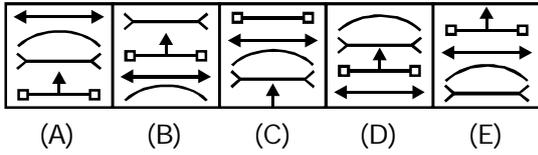
Sol. By Observation

Answer Figure :



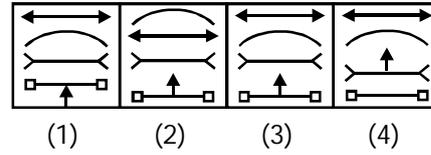
- (1) (2) (3) (4)
- (C) 3 (D) 4

29. Problem Figures :



(A) 1 (B) 2 (C) 3 (D) 4 (E) 5

Answer Figure :



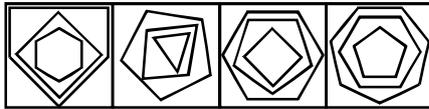
(1) 1 (2) 2 (3) 3 (4) 4

Ans. (C)

Sol. By Observation

Q (30-32) : Choose the figure which is different from the rest.

30.



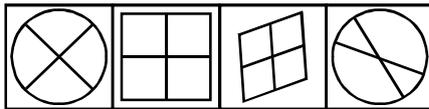
(1) 1 (2) 2 (3) 3 (4) 4

(A) 1 (B) 2 (C) 3 (D) 4

Ans. (A)

Sol. By Observation

31.



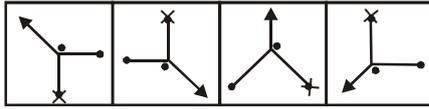
(1) 1 (2) 2 (3) 3 (4) 4

(A) 1 (B) 2 (C) 3 (D) 4

Ans. (D)

Sol. divide into equal four rest except

32.



(1) 1 (2) 2 (3) 3 (4) 4

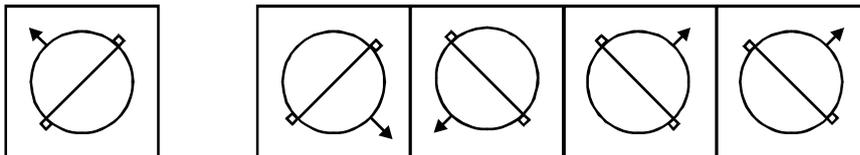
(A) 1 (B) 2 (C) 3 (D) 4

Ans. (C)

Sol. By Observation

(33-35) : Choose the correct mirror image of the given figure (X) from amongst the four alternatives.

33.

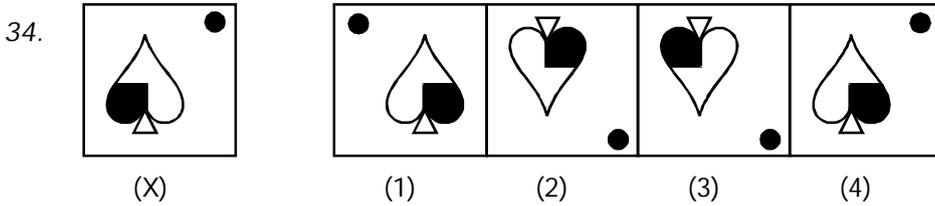


(X) 1 (2) 3 (4) 4

(A) 1 (B) 2 (C) 3 (D) 4

Ans. (C)

Sol. By Observation



- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (A)

Sol. By Observation

(35-37) : Here are some words translated from an artificial language. Answer the related questions.

35. 'peslligen' means 'basketball court'

'ligenstrisi' means 'courtroom'

'oltaganit' means 'placement test'

which word could mean "guest room"?

- (A) pesistrisi (B) vosefstrisi (C) gantipesl (D) oltastrisi

Ans. (B)

Sol. By Observation

36. 'mallonpiml' means 'blue light'

'mallontifl' means 'blueberry'

'arpantifl' means 'raspberry'

Which word could mean "lighthouse" ?

- (A) tiflmallon (B) pimlarpan (C) mallonarpan (D) pimidoken

Ans. (D)

Sol. By Observation

37. 'jalkamofti' means 'happy birthday'

'moftihoze' means 'birthday party'

'mentogunn' means 'goodness'

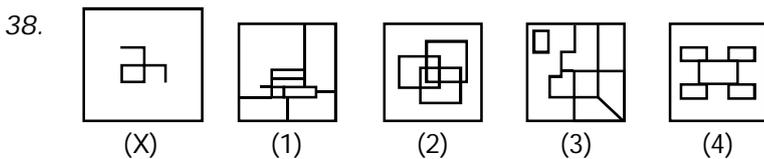
Which word could mean "happiness"?

- (A) jalkagunn (B) mentohoze (C) moftihoze (D) hozemento

Ans. (A)

Sol. By Observation

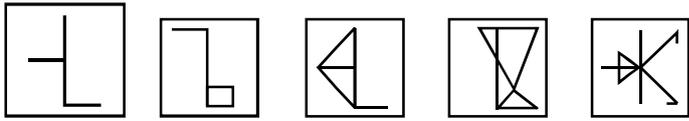
Q (38-39) : Find out the alternative figure which contains figure (X) as its part.



- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (B)

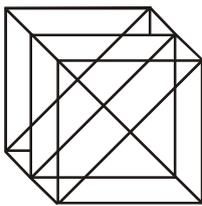
Sol. By Observation

39. 
 (X) (1) (2) (3) (4)
 (A) 1 (B) 2 (C) 3 (D) 4

Ans. (B)

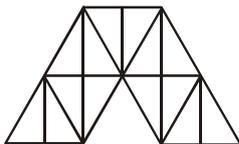
Sol. By Observation

Q (40-41) Find the number of triangles in the given figure.

40. 
 (A) 18 (B) 20 (C) 24 (D) 27

Ans. (C)

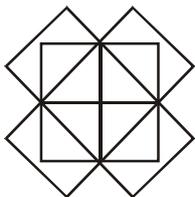
Sol. By Observation

41. 
 (A) 23 (B) 27 (C) 31 (D) 29

Ans. (D)

Sol. By Observation

42. Find the number of squares and rectangles in the given figure.

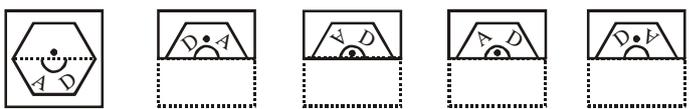


- (A) 20 (B) 18 (C) 16 (D) 15

Ans. (A)

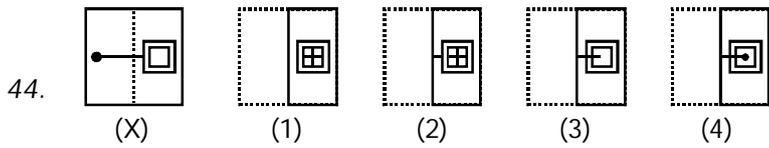
Sol. By Observation

Q (43-45) : Find out from amongst the four alternatives as to how the pattern (X) would appear when the transparent sheet is folded at the dotted line.

43. 
 (X) (1) (2) (3) (4)
 (A) 1 (B) 2 (C) 3 (D) 4

Ans. (B)

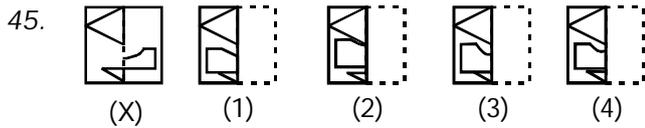
Sol. By Observation



- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (D)

Sol. By Observation

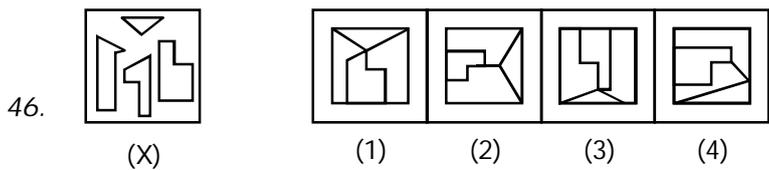


- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (C)

Sol. By Observation

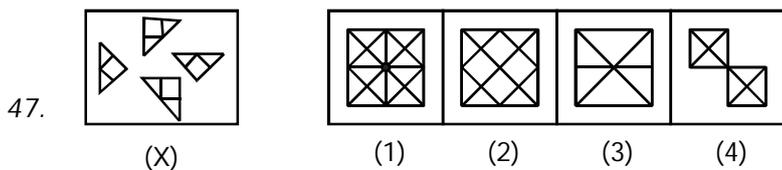
Q (46 - 47) : Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure (X).



- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (C)

Sol. By Observation

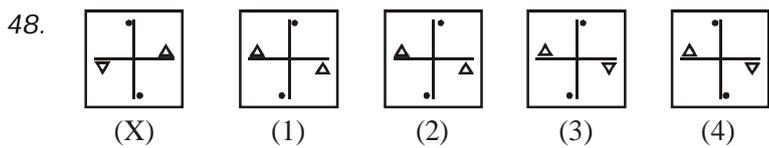


- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (B)

Sol. By Observation

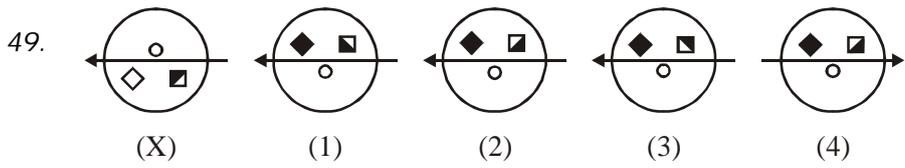
Q (48 - 49) : Choose the correct water image of the given figure (X) form amongst the four alternatives.



- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (C)

Sol. By Observation

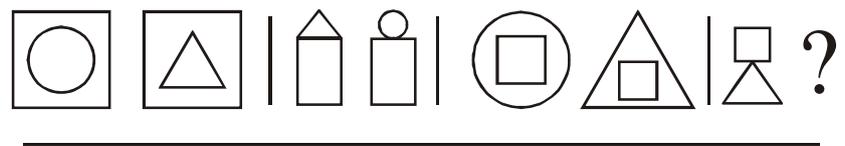


- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (A)

Sol. By Observation

50. Look at the sequence of symbols to find the pattern. Select correct patten at the (?) mark.



- (1) (2) (3) (4)

- (A) 1 (B) 2 (C) 3 (D) 4

Ans. (C)

Sol. By Observation