

NTSE STAGE-1(PAPER-MAT)

Direction: From question 1 to 7 each question has four Terms. Three terms are alike in some way. One term is different from three others. Find out the correct term which is different from three others and write its alternative number on your answer sheet against the proper question number-

1. (1) 2008 (2) 2012 (3) 2016 (4) 2018

1. 4

Sol. Except 2018 all are multiple of 4.

2. (1) S-190 (2) L-144 (3) P-256 (4) T-400

2. 1

Sol. S – 19

$$19^2 = 361$$

S – 190 is not correct

3. (1) Magazine (2) Book (3) Copy (4) News-Paper

3. 3

Sol. Except copy all are readings

4. (1) 11, 14, 17 (2) 19, 16, 13 (3) 2, 5, 7 (4) 25, 29, 32

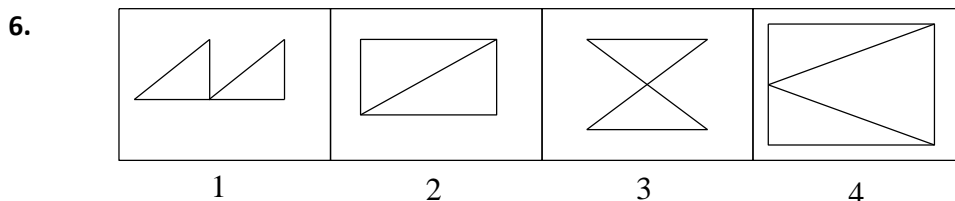
4. 2

Sol. Except option (2) all are in increasing order.

5. (1) DAC (2) SJG (3) MKB (4) YTE

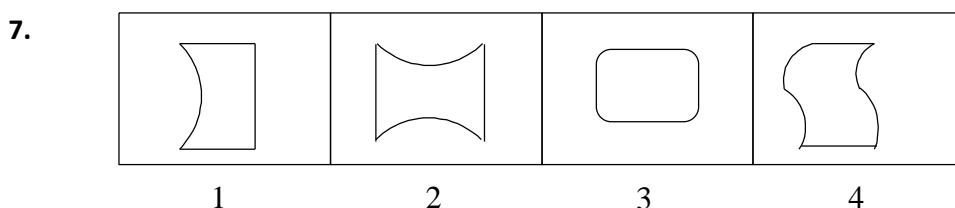
5. 2

Sol. Except (2) order of middle term difference of extremes



6. 4

Sol. Except (4) all the options contain two identical figure.



7. 3

Sol. Except (3) all figure have corners

Direction: Question 8 to 12 there are food terms/ figure in each question. The terms right to the symbol : : have same relationship as the two terms of the left symbol : : Out of the food terms. Figure one is missing, which is shown bold (?). Four alternative are given for each question. Find out the correct alternative and write its number against the corresponding question on your answer sheet-

8. News paper: News: : Book: ?

(1) Writer (2) Chapter (3) Knowledge (4) Page

8. 3

Sol. News paper gives news, Book gives knowledge

9. BHC : FLG :: JPK ?

(1) MSP (2) NTO (3) EKF (4) SYT

9. 2

Sol. B $\xrightarrow{+4}$ F

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$$H \xrightarrow{+4} L$$

$$C \xrightarrow{+4} G$$

Similarly, JPK \rightarrow NTO

10. $\frac{D}{W} : 92 :: \frac{H}{S} : ?$

(1) 27

(2) 11

(3) 121

(4) 152

10. 4

Sol. D - 4

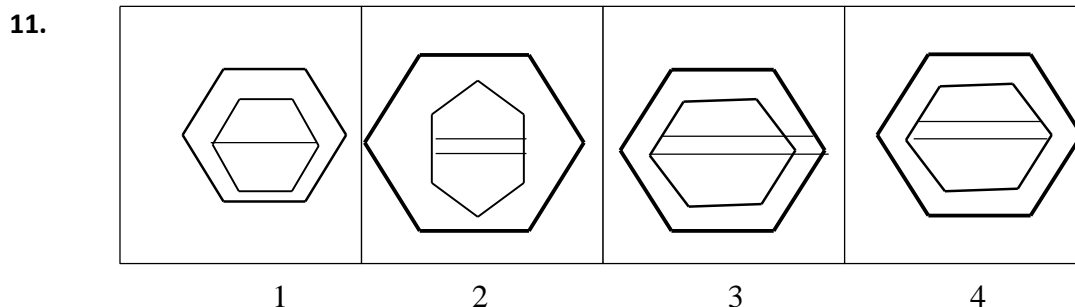
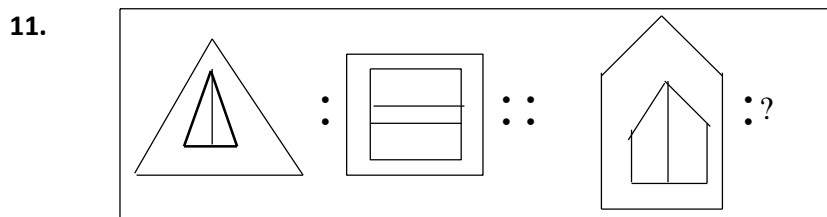
W - 23

$$4 \times 23 = 92$$

H - 8

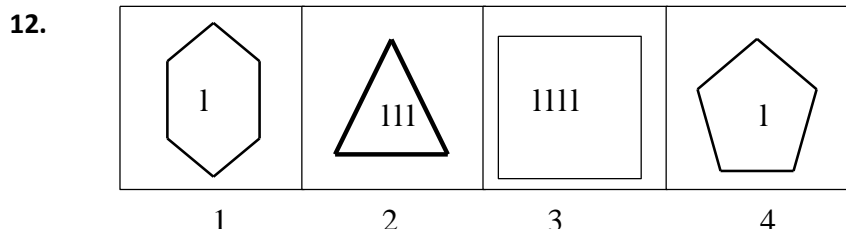
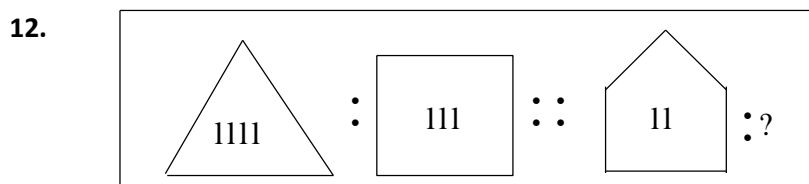
S - 19

$$8 \times 19 = 152$$



11. 4

Sol. Lines increase by 1



12. 1

Sol. Sides in figure increase by 1 and lines decrease by 1.

Direction: Question from 13 to 18 are based on number/ letter/ figure series. In each series missing term is mentioned by question mark (?). Find out the missing term in given alternatives and write its alternative number against the correct question number on your answer sheet-

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13. 213, 768, 132, 687, ? 876, 213, ?
 (1) 312, 786 (2) 321, 768 (3) 321, 867 (4) 123, 678

13. 2
 Sol. Digits are rotating in cyclic order

14. BA, ZY, DC, XW, FE, VU, TS, JI ?
 (1) GH, QR (2) QR, GH (3) HG, RQ (4) GH, RQ

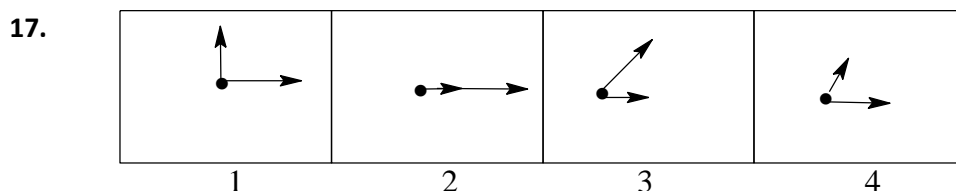
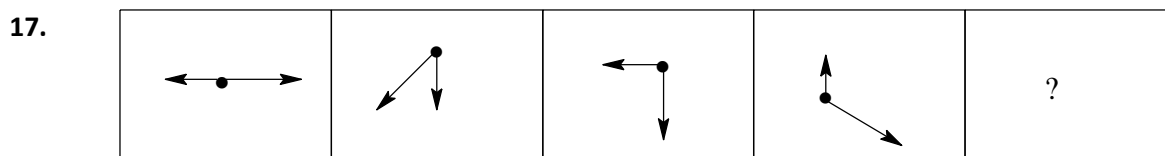
14. 3
 Sol. B & Y ; A & Z; have same distance from beginning and end respectively and so on.

15. 1, 4, ?, ?, 125, 36, ?
 (1) 27, 16, 49 (2) 9, 16, 49 (3) 27, 64, 49 (4) 27, 16, 343

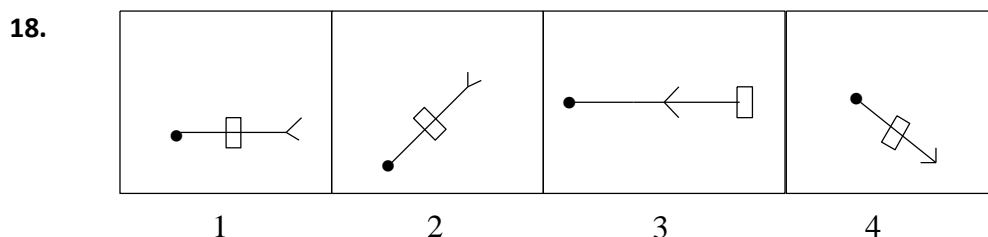
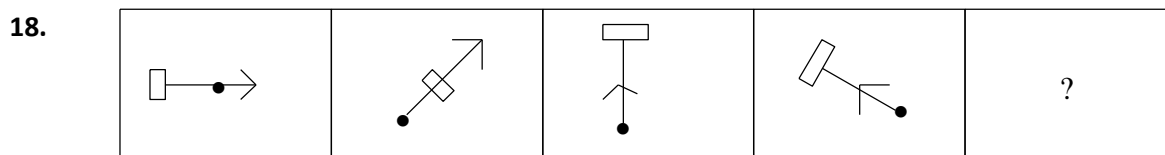
15. 4
 Sol. $1^3, 2^2, 3^3, 4^2, 5^3, 6^2, 7^3$

16. $\frac{H}{16}, \frac{K}{13}, ?, \frac{Q}{19}, \frac{T}{40}, \frac{Z}{52}$
 (1) $\frac{N}{25}, \frac{V}{28}$ (2) $\frac{N}{28}, \frac{W}{25}$ (3) $\frac{W}{26}, \frac{M}{20}$ (4) $\frac{N}{24}, \frac{W}{32}$

16. 2
 Sol. $\frac{H}{2 \times 8}, \frac{K}{11+2}, \frac{N}{2 \times 14}, \frac{Q}{17+2}, \frac{T}{2 \times 20}, \frac{W}{23+2}, \frac{Z}{2 \times 26}$



17. 2
 Sol. Small arrow rotating 90° clockwise in every step and big arrow rotating 45° anticlockwise in every step.



18. 1
 Sol. Arrow is rotating 45° anticlockwise and is rotating 135° clockwise and 45° anticlockwise alternatively.

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Direction: Question 19 to 21 the letters in column I are coded in the form of numbers. Which are written in column II, but the order of numbers is different. Read carefully code of letters. Find out correct answer in given alternative and write its alternative number against the corresponding question number on your answer sheet-

Column- I	Column- II
STE	376
KSN	324
DRQ	815
EKR	562
DNR	415

19. What will be code of RKT
 (1) 257 (2) 527 (3) 235 (4) 764

19. 2
 Sol. S→3; K→2; R→5; T→7; Q→8; D→1; E→6; N→4;

20. What will be code of SEND ?
 (1) 6413 (2) 5614 (3) 3641 (4) 4631

20. 3
 Sol. S→3; K→2; R→5; T→7; Q→8; D→1; E→6; N→4;

21. What will be code of QRK ?
 (1) 583 (2) 625 (3) 278 (4) 852

21. 4
 Sol. S→3; K→2; R→5; T→7; Q→8; D→1; E→6; N→4;

22. If in certain code language SATURDAY written as UTASYADR. How is HOSPITAL written in that code?
 (1) PSOHLATI (2) HPSOILAT (3) SPOHATLI (4) POSHLTAI

22. 1
 Sol. First four and last four letters are written in reverse order.

23. If in a certain code language TABLE written as SBAMD. How is COVER written in that code?
 (1) DPWFQ (2) BQU DS (3) BQUFD (4) BPUFQ

23. 4
 Sol. $T \xrightarrow{-1} S$
 $A \xrightarrow{-1} B$
 $B \xrightarrow{-1} A$
 $L \xrightarrow{-1} M$
 $E \xrightarrow{-1} D$

24. If in certain code language ROPE is written as 6821 and CHAIR as 73456. How will be CRAPE written in that code ?
 (1) 77246 (2) 76421 (3) 73456 (4) 73214

24. 2
 Sol. R → 6
 O → 8
 P → 2
 E → 1
 C → 7
 H → 3
 A → 4
 I → 5

Direction: From Question 25 to 30 the equations have become wrong because of the wrong order of signs. Choose the correct order of signs from the four options given below so as to make the equations right. Write the alternative number of the correct option on the answer sheet against the corresponding question number-

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25. $11 + 2 = 1 - 10$
 (1) $- +=$ (2) $=+-$ (3) $- =+$ (4) $+ -=$

25. 1
 Sol. $11 - 2 + 1 = 10$

26. $15 + 3 = 5 \times 50$
 (1) $= + \times$ (2) $\times + =$ (3) $\times = +$ (4) $+ \times =$

26. 2
 Sol. $15 \times 3 + 5 = 50$

27. $93 + 7 = 13 + 113$
 (1) $= ++$ (2) $+ = +$ (3) $+ + =$ (4) $- = +$

27. 3
 Sol. $93 + 7 + 13 = 113$

28. $27 \times 5 = 11 - 2$
 (1) $- \times =$ (2) $= \times -$ (3) $\times - =$ (4) $- = \times$

28. 4
 Sol. $27 - 5 = 11 \times 2$

29. $72 + 8 \div 12 = 21$
 (1) $\div + =$ (2) $= + \div$ (3) $= \div +$ (4) $\div = +$

29. 1
 Sol. $72 \div 8 + 12 = 21$

30. $12 - 4 + 12 \div 3 = 9$
 (1) $+ \div = -$ (2) $\div = + -$ (3) $= \div - +$ (4) $\div \times + =$

30. 4
 Sol. $12 \div 4 \times 2 + 3 = 9$

Direction: Question 31 to 36 numbers are placed in figure on the basis of some rules. One place is vacant which is indicated as (?). figer out the correct alternative for the vacant place and write its number against the proper question number on your answer sheet-

31.

31	26	15
27	?	9

(1) 13 (2) 24 (3) 18 (4) 12

31. 3
 Sol. $(31 - (3+1)) = 27$
 $(15 - (1+5)) = 9$
 $(26 - (2+6)) = 18$

32.

$\begin{matrix} 2 & & 3 \\ & \square & \\ 1 & & 2 \end{matrix}$	$\begin{matrix} 2 & & 4 \\ & \square & \\ 1 & & 1 \end{matrix}$	$\begin{matrix} 1 & & 0 \\ & \square & \\ 3 & & 4 \end{matrix}$
15	12	?

(1) 7 (2) 13 (3) 1 (4) 8

32. 1
 Sol. $(3 + 2) \times (2 + 1) = 15$
 $(4 + 2) \times (1 + 1) = 12$
 $(1 + 0) \times (3 + 4) = 7$

33.

13	25	34
12	30	?

(1) 32

(2) 36

(3) 27

(4) 39

33.

1

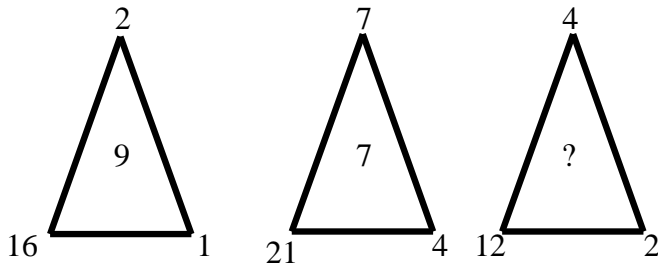
Sol.

$$(1 + 1) \times 3 \times 2 = 12$$

$$(2 + 1) \times 5 \times 2 = 30$$

$$(3 + 1) \times 4 \times 2 = 32$$

34.



(1) 3

(2) 4

(3) 5

(4) 6

34.

3

Sol.

$$\frac{16}{2} + 1 = 9$$

$$\frac{21}{7} + 4 = 7$$

$$\frac{12}{4} + 2 = 5$$

35.

1	1	32
1	2	?
1	8	2

(1) 2

(2) 4

(3) 16

(4) 12

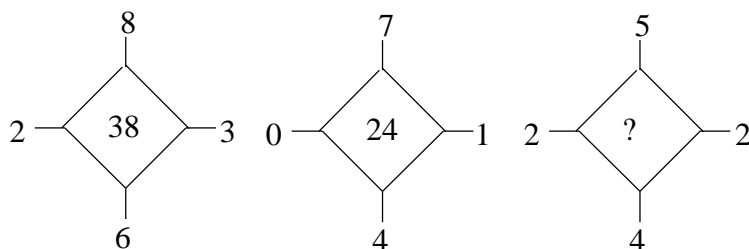
35.

2

Sol.

Middle Term is the cube root of extremes.

36.



(1) 13

(2) 15

(3) 26

(4) 48

36.

3

Sol.

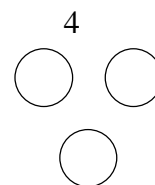
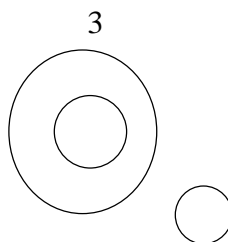
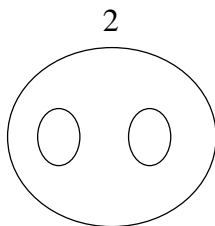
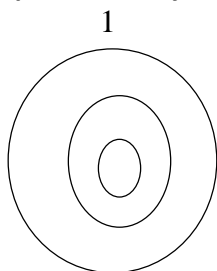
$$(8 + 3 + 6 + 2) \times 2 = 38$$

$$(7 + 1 + 4 + 0) \times 2 = 24$$

$$(5 + 2 + 4 + 2) \times 2 = 26$$

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Direction: Each of the following question 37 to 42 has a group of the words which are related to each other in some way. This relationship can be represented by one of the four figure alternative given in the beginning. Find out the correct figure alternative and write its number against the corresponding questions on your answer sheet-



- | | | | | |
|------------|-------------|-------------|---------------|-------|
| 37. | Rose | Lion | Animal | |
| | (1) 4 | (2) 2 | (3) 1 | (4) 3 |

37. 4
Sol. Lion is a Animal

- | | | | | |
|------------|---------------|----------------|---------------|-------|
| 38. | Police | Teacher | School | |
| | (1) 2 | (2) 3 | (3) 4 | (4) 1 |

38. 2
Sol. Teacher is a part of school.

- | | | | | |
|------------|------------|-------------|-------------|-------|
| 39. | Dog | Fish | Bird | |
| | (1) 4 | (2) 1 | (3) 2 | (4) 3 |

39. 1
Sol. All are different.

- | | | | | |
|------------|---------------|--------------|-----------------|-------|
| 40. | Doctor | Nurse | Hospital | |
| | (1) 3 | (2) 4 | (3) 2 | (4) 1 |

40. 3
Sol. Doctor & Nurse both the parts of Hospital, but both jobs are different

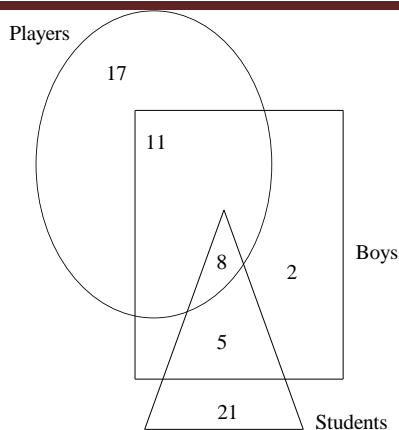
- | | | | | |
|------------|----------------|----------------|-------------|-------|
| 41. | Library | Almirah | Book | |
| | (1) 4 | (2) 3 | (3) 2 | (4) 1 |

41. 4
Sol. Books are in Almirah and Almirah are in Library.

- | | | | | |
|------------|---------------|----------------|---------------|-------|
| 42. | Family | Brother | Sister | |
| | (1) 2 | (2) 3 | (3) 1 | (4) 4 |

42. 1
Sol. Both Brother and Sister are the parts of family.

Direction: In Question 43 to 46 are based on the diagram given below. In the diagram Triangle represents students, circle represents player and square represents boys. Read carefully the digits written within the diagram to choose the correct answer from given alternative and write its numbers against the proper question number on your answer sheet-



- 43. How many boys are students**
 (1) 13 (2) 34 (3) 19 (4) 15

43. 1
 Sol. Sum of numebrs which come under the square and triangle

- 44. How many students are there**
 (1) 13 (2) 34 (3) 26 (4) 35

44. 2
 Sol. Sum of numbers which come under triangle

- 45. How many boys are students but not player?**
 (1) 8 (2) 21 (3) 2 (4) 5

45. 4
 Sol. Number which come under square and triangle but not circle.

- 46. How many boys are player?**
 (1) 8 (2) 36 (3) 15 (4) 19

46. 4
 Sol. Sum of numbers which come under square and circle.

Direction: Question 47 to 50 are based on informations given below. Under each question options are given for answer. Read the information carefully and write serial number of correct option against corresponding question on your answer sheet-

Information

1. Ram plays football, Hockey and Volley ball
2. Shyam plays Cricket, Hockey and foot ball
3. Anil plays Hockey, Volley ball and Batminton
4. Deepak plays Volley- ball, Cricket and Foot ball
5. Harish plays Foot- ball only.

- 47. Which game is played by the most of the boys-?**
 (1) Cricket (2) Hockey (3) Foot- ball (4) Volley- ball

47. 3

- 48. How many boys play Hockey-?**
 (1) Two (2) Three (3) Five (4) One

48. 2

- 49. How many boys play Cricket-?**
 (1) Two (2) Four (3) One (4) Three

49. 1

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50. Which boys do not play Volley- ball-?

(1) Ram- Harish

(2) Shyam- Deepak

(3) Anil- Shyam

(4) Shyam- Harish

50. 4

Sol. for Q.47 to Q.50.

	Football	Hockey	Volleyball	Cricket	Badminton
Ram	√	√	√		
Shyam	√	√		√	
Anil		√	√		√
Deepak	√		√	√	
Harish	√				

47. (3)

48. (2)

49. (1)

50. (4)