

**NATIONAL TALENT SEARCH EXAMINATION
(NTSE-2018) STAGE -1
STATE : UTTAR PREDESH PAPER : MAT**

Date: 05/11/2017

Max. Marks: 50

SOLUTIONS

Time allowed: 45 mins

Direction : From question no. (Q.1 to Q.6) each question has four options. Out of them three options are alike and one is different from three others. Find out the correct one which is different from rest of the three.

1. (1) Red (2) Yellow (3) Pink (4) Blue

Ans. (3)

Sol. Colors of Rainbow

2. (1) G I M R (2) K M P T (3) J L O S (4) D F I M

Ans. (1)

Sol. $\begin{matrix} \text{G I M R} & \text{K M P T} & \text{J L O S} & \text{D F I M} \\ \underbrace{\quad\quad\quad} & \underbrace{\quad\quad\quad} & \underbrace{\quad\quad\quad} & \underbrace{\quad\quad\quad} \\ +2 +4 +5 & +2 +3 +4 & +2 +3 +4 & +2 +3 +4 \end{matrix}$

3. (1) Rajya Sabha (2) Legislative Assembly (3) Lok Sabha (4) Superme Court

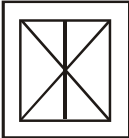
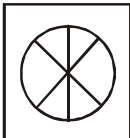
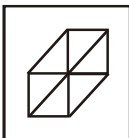
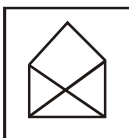
Ans. (4)

Sol. All are legislature except supreme court.

4. (1) 2401 (2) 625 (3) 4095 (4) 1296

Ans. (3)

Sol. All are perfect square except 4095.

5. (1)  (2)  (3)  (4) 

Ans. (4)

Sol. By observation

6. (1)  (2)  (3)  (4) 

Ans. (3)


Sol. By observation

Direction : From question no. (Q.7 to Q.11) there are four terms/figures in each question. The terms right to the symbol :: have same relationship as the two terms of the left symbol :: Out of the four terms/figure one is missing, which is shown by (?). Four alternative are given for each question. Find out the correct alternative and write its number against the corresponding question on your answer sheet-

7. EHLP : GKPU :: CGKO ?

- (1) EKPT (2) EJOT (3) FLOU (4) FKPV

Ans. (2)

Sol. 

8. CEHI : 5 :: FIJK : ?

- (1) 6 (2) 8 (3) 7 (4) 4

Ans. (1)

Sol. $\sqrt{6+9+10+11} = 6$

9. Italy : Lira :: Japan : ?

- (1) Yuan (2) Kyat (3) Yen (4) Taka

Ans. (3)

Sol. Currency of Japan is Yen.

10. 1290 : 6 :: 2394 : ?

- (1) 9 (2) 13 (3) 8 (4) 7

Ans. (1)

Sol. Sum of digit $\div 2$

11. Durandcup : Football :: Uber Cup ?

- (1) Golf (2) Badminton (3) Hockey (4) Chess

Ans. (2)

Sol. Durandcup is for football, Ubercup is for badminton

12. Newton : Force :: Hertz : ?

- (1) Frequency (2) Work (3) Power (4) Intensity

Ans. (1)

Sol. Hertz is the unit of frequency.

Direction : From question no. (Q.13 to Q.18) are based on the number/figure series. One term is missing in each series which is indicated by question mark (?). Find out the missing term out of the four alternatives given below on questions and write that alternative number-

13. 2, 7, 22, 67, 202, ?

- (1) 609 (2) 607 (3) 576 (4) 498

Ans. (2)

Sol. $(\times 3 + 1)$

14. 3, 6, 6, 12, 11, 20, 18, ?, ?

(1) 25, 27

(2) 36, 30

(3) 26, 36

(4) 30, 27

Ans. (4)

Sol. $3, \overset{+6}{\curvearrowright} 6, \overset{+8}{\curvearrowright} 6, \overset{+10}{\curvearrowright} 12, \overset{+7}{\curvearrowright} 11, \overset{+9}{\curvearrowright} 20, \overset{+11}{\curvearrowright} 18, \overset{+13}{\curvearrowright} 30, \overset{+15}{\curvearrowright} 27$

15. 16, 18, 21, 23, 28, 30, ?, ?

(1) 36, 32

(2) 39, 37

(3) 37, 39

(4) 34, 40

Ans. (3)

Sol. $16, \overset{+5}{\curvearrowright} 18, \overset{+7}{\curvearrowright} 21, \overset{+9}{\curvearrowright} 23, \overset{+11}{\curvearrowright} 28, \overset{+13}{\curvearrowright} 30, \overset{+15}{\curvearrowright} 37, \overset{+17}{\curvearrowright} 39$

16. 2, 9, 28, 65, 126, ?

(1) 217

(2) 196

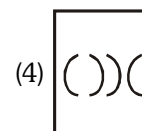
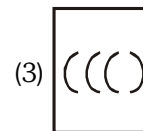
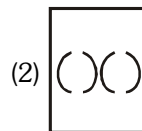
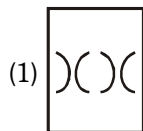
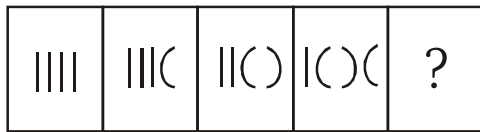
(3) 216

(4) 226

Ans. (1)

Sol. $(n^3 + 1)$

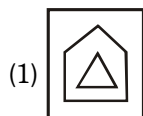
17. Question Figures



Ans. (2)

Sol. By observation.

18. Question Figures



Ans. (4)

Sol. By observation.

Directions : for Question No. 19 to 23 are based on definite series of letters. In the following questions some places are missing. Find out the correct answer for every question-

19. ER F R FE K

- (1) KEFKR (2) EKFKR (3) FKEKR (4) FEREF

Ans. (3)

Sol. F E R K F E R K F E R K

∴ FKEKR

20. K W KX V

- (1) WVXVWXX (2) WXVWVXK (3) XWVKVKV (4) VKXWVKX

Ans. (1)

Sol. W V K X W V K X W V K X

∴ WVXVWXX

21. L H LO UL

- (1) OHUOHU (2) HUOUHO (3) UOHUOH (4) OUHUHO

Ans. (2)

Sol. H U L O H U L O H U L O

∴ HUOUHO

22. M I MP VM

- (1) VPIPVI (2) PVIPIV (3) IVPVPI (4) IVPVIP

Ans. (4)

Sol. I V M P I V M P I V M P

∴ IVPVIP

23. HU I UIH N

- (1) IHNUH (2) IUNOU (3) INHNU (4) NHUHN

Ans. (3)

Sol. I H U N I H U N I H U N

∴ INHNU

Direction : In question no. 24 to 28 the equation have become incorrect due to wrong order of signs. Find out the correct order of sign (alternative) from the four alternatives given, below-

24. $15 - 3 \div 5 \times 12 = 13$

- (1) $\times - \div =$ (2) $\div \times - =$ (3) $- \times = \div$ (4) $\div - \times =$

Ans. (2)

Sol. $15 \div 3 \times 5 - 12 = 13$

25. $3 + 4 - 6 \times 13 = 5$

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

Ans. (1)

Sol. $3 \times 4 + 6 - 13 = 5$

26. $12 + 4 - 2 \div 3 = ?$

(1) $+ - \div =$

(2) $\div = + -$

(3) $- + \div =$

(4) $\div + - =$

Ans. (*)

Sol. Not in option.

27. $24 = 8 + 3 \div 4 \times 13$

(1) $\div + \times =$

(2) $\times \div + =$

(3) $\div \times + =$

(4) $= \div + \times$

Ans. (3)

Sol. $24 \div 8 \times 3 + 4 = 13$

28. $3 + 5 = 2 - 8 \times 9$

(1) $\times + - =$

(2) $+ - \times =$

(3) $= + - \times$

(4) $\times + = -$

Ans. (1)

Sol. $3 \times 5 + 2 - 8 = 9$

Direction in Questions 29 to 33 the letters in column I are coded in the form of digits, which is written in the column II. But the order of digits is different. Identify correct code of letters. Find out the correct alternative for each question-

Column I	Column II
BLO	369
EPL	279
PJT	175
JNS	018
NLB	309
RTJ	451

29. What will be the code of word LJN

(1) 713

(2) 910

(3) 610

(4) 817

Ans. (2)

Sol.

Letter	J	N	S	L	B	P	O	E	T	R
Code	1	0	8	9	3	7	6	2	5	4

LJN - 910

30. What will be the code of word BTS-

(1) 431

(2) 850

(3) 358

(4) 258

Ans. (3)

Sol.

Letter	J	N	S	L	B	P	O	E	T	R
Code	1	0	8	9	3	7	6	2	5	4

BTS - 358

31. What will be the code of word REP

(1) 437

(2) 671

(3) 527

(4) 427

Ans. (4)

Sol.

Letter	J	N	S	L	B	P	O	E	T	R
Code	1	0	8	9	3	7	6	2	5	4

REP - 427

32. What will be the code of word OPS-

- (1) 678 (2) 873 (3) 708 (4) 362

Ans. (1)

Sol.

Letter	J	N	S	L	B	P	O	E	T	R
Code	1	0	8	9	3	7	6	2	5	4

OPS – 678

33. What will be the code of word LBT-

- (1) 369 (2) 935 (3) 529 (4) 365

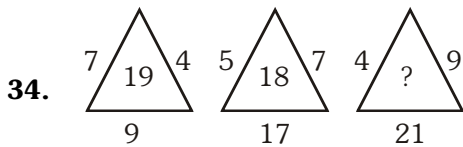
Ans. (2)

Sol.

Letter	J	N	S	L	B	P	O	E	T	R
Code	1	0	8	9	3	7	6	2	5	4

LBT – 935

Direction : In Question nos. 34 to 38 are placed on the basis of some rules. In each question one number is left vacant which is indicated by (?). Find out the correct alternative in each question-



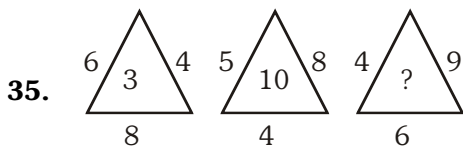
- (1) 17 (2) 19 (3) 15 (4) 16

Ans. (3)

Sol. $(7 \times 4) - 9 = 19$

$(5 \times 7) - 17 = 18$

$(4 \times 9) - 21 = 15$



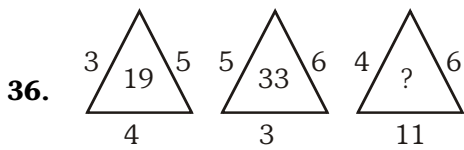
- (1) 8 (2) 6 (3) 7 (4) 9

Ans. (2)

Sol. $(6 \times 4) \div 8 = 3$

$(5 \times 8) \div 4 = 10$

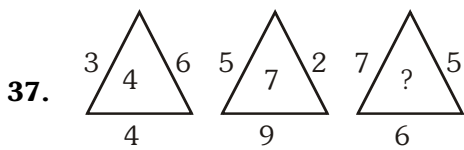
$(4 \times 9) \div 6 = 6$



- (1) 35 (2) 39 (3) 36 (4) 34

Ans. (1)

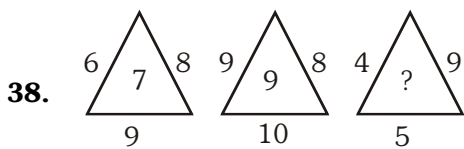
Sol. $(3 \times 5) + 4 = 19$
 $(5 \times 6) + 3 = 33$
 $(4 \times 6) + 11 = 35$



- (1) 6 (2) 11 (3) 9 (4) 8

Ans. (4)

Sol. $\frac{(3+6) \times 4}{9} = 4$
 $\frac{(5+2) \times 9}{9} = 7$
 $\frac{(7+5) \times 6}{9} = 8$



- (1) 9 (2) 7 (3) 8 (4) 6

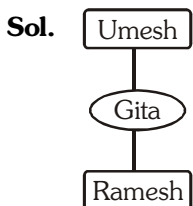
Ans. (4)

Sol. (Sum of outer number) $\div 3$

39. By pointing towards Umesh Gita says that he is the grand-father of my elder son Ramesh. What is the relation between Gita and Umesh-

- (1) Brother in-law (2) Father (3) Uncle (Paternal) (4) Uncle (maternal)

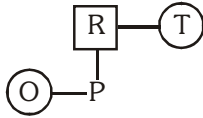
Ans. (2)



- 40.** If O is the sister of P, R is the father of P, T is the sister of R. What will be relation between O and T-
 (1) Aunt (Father's Sister) (2) Sister (3) Neice (4) Daughter

Ans. (3)

Sol.



O is niece of T

Direction : Question no. 41 to 45 are based on the information. Read the information carefully and find out the correct alternative for each question-

R has four brothers named S, T, U and V. In which T is elder than U, but younger than S, S is elder than R and T, but younger than V, R is elder than U, but younger than T.

- 41.** Who is the eldest among them

(1) V (2) R (3) T (4) S

Ans. (1)

Sol. Order is $V > S > T > R > U$

- 42.** Who is the youngest among them

(1) S (2) T (3) R (4) U

Ans. (4)

Sol. Order is $V > S > T > R > U$

- 43.** Who is at the middle order among them-

(1) S (2) T (3) R (4) V

Ans. (2)

Sol. Order is $V > S > T > R > U$

- 44.** Who is at the second from top order among them-

(1) R (2) T (3) S (4) U

Ans. (3)

Sol. Order is $V > S > T > R > U$

- 45.** Who is at the second from bottom order among them-

(1) T (2) R (3) U (4) S

Ans. (2)

Sol. Order is $V > S > T > R > U$

- 46.** If the fourth Saturday of a month is 22nd day then 13th day of the month will be which day

(1) Tuesday (2) Wednesday (3) Thursday (4) Sunday

Ans. (3)

Sol. Saturday is on 1, 8, 15, 22

\therefore 13th day is thursday.

47. If on the 15th Sepetember 2008 was a Friday. Then which day will be on 15th Sepetember 2009

- (1) Sunday (2) Friday (3) Thursday (4) Saturday

Ans. (4)

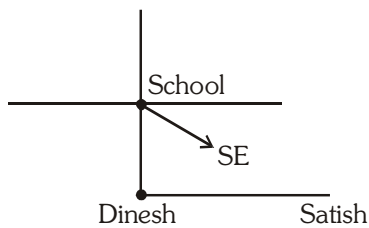
Sol. One complete year = +1 odd day.

48. Dinesh home is two Km. South from his school and Satish's home is two Km. in the East from Dinesh home what will be the direction of Satish's home-

- (1) NorthWest (2) SouthWest (3) North East (4) South East

Ans. (4)

Sol.

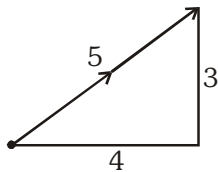


49. A man moves 4 km towards East. Then moves 3 km. towards North. How far he is from the starting point-

- (1) 8 Km (2) 7 Km (3) 5 Km (4) 6 Km

Ans. (3)

Sol.



50. A person is going towards north from his home then he turns right and then turn to right, again he turns to the left. Now is which direction is he going-

- (1) North (2) East (3) South (4) West

Ans. (2)

Sol.

