

## NATIONAL TALENT SEARCH EXAMINATION-2019-20, UTTAR PRADESH

### MENTAL ABILITY TEST (MAT) PAPER & HINTS & SOLUTION

1. Read the following instructions carefully before you answer the questions. Answers are to be SHADED on a SEPARATE OMR Answer sheet given, with a HB pencil. Read the Instructions printed on the OMR sheet carefully before answering the questions.

Please write you Centre Code No. and Roll no. very clearly (only one digit in one block) on the

**Direction-** In question no. 1 to 12 each question has four terms. Each 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) R 81 (2) L 19 (3) W 25 (4) M 16

Ans. (2)

Sol. Number given in the question are perfect square except option(2) 2.

2. (1) CJM (2) PGW (3) RBT (4) SFH

Ans. (4)

Sol. CJM  $\Rightarrow 3 + 10 = 13 \Rightarrow M$   
 RGW  $\Rightarrow 16 + 7 = 23 \Rightarrow W$   
 RBT  $\Rightarrow 18 + 2 = 20 \Rightarrow T$   
 SFH  $\Rightarrow 19 + 6 = 25 \Rightarrow Y$

3. (1) Z8R (2) Q13D (3) M22K (4) T14F

Ans. (3)

Sol. Z(26) - R(18) = 8  
 Q(17) - D(4) = 13  
 M(13) - K(11) = 2  
 T(20) - F(6) = 14

4. (1) BDG (2) HJM (3) QSV (4) KMH

Ans. (4)

Sol. BDG  $\Rightarrow B + 2 = D, D + 3 = G$   
 HJM  $\Rightarrow H + 2 = J, J + 3 = M$   
 QSV  $\Rightarrow Q + 2 = S, S + 3 = V$   
 KMH  $\Rightarrow K + 2 = M, M + 3 = N$

5. (1) Lion (2) Deer (3) Wolf (4) Fox

Ans. (2)

Sol. All except Deer are carnivorous animals.

6. (1) Labour (2) Doctor (3) Student (4) Tailor

Ans. (3)

Sol. All except student are profession

7. (1) Deputy Chief Minister (2) Governor  
 (3) Prime Minister (4) Chief Minister

Ans. (2)

Sol. All except governor are part of cabinet ministry

8. (1) Kanpur (2) Lucknow (3) Merut (4) Mirzapur

Ans. (3)

Sol. All except merut are correctly spelled

9. (1) 13, 7 (2) 24, 19 (3) 36, 27 (4) 45, 29

**Ans.** (3)

**Sol.** All except option (3) are coprime number.

**10.** (1) 1980 (2) 1924 (3) 1946 (4) 1996

**Ans.** (4)

**Sol.** All except option (4) have sum as even number.

**11.** (1) 133 (2) 147 (3) 182 (4) 234

**Ans.** (4)

**Sol.** All except 234 are divisible by 7.

**12.** (1) 32.5 (2) 43.5 (3) 58.5 (4) 73.5

**Ans.** (1)

**Sol.** All except 32.5 are divisible by 0.3

**Direction- In question no. 13 to 24 are based on number / letter series. In each series missing term is indicated by**

Blank space (—). Find out the missing term out of the four alternatives given below and write its alternative number against the correct question number on your answer sheet-

**13.** 1\_44\_6114\_661\_446\_

(1) 61416 (2) 16416 (3) 41416 (4) 64616

**Ans.** (2)

**Sol.** 11|44|66|11|44|66|11|44|66

**14.** \_A\_CCA\_BC\_AABC\_

(1) ABACC (2) ABACB (3) CABCA (4) AABCC

**Ans.** (1)

**Sol.** AABCC/AABCC/AABCC

**15.** 3,8,\_,68,\_,608,1823

(1) 25, 199 (2) 29, 205 (3) 23, 203 (4) 24, 136

**Ans.** (3)

**Sol.**  $3 \times 3 - 1 = 8$   
 $8 \times 3 - 1 = 23$   
 $23 \times 3 - 1 = 68$   
 $68 \times 3 - 1 = 203$   
 $203 \times 3 - 1 = 608$  ....

**16.** 9, 64, \_, 216, 49, \_, 81

(1) 20, 72 (2) 25, 512 (3) 30, 64 (4) 32, 63

**Ans.** (2)

**Sol.**  $32 = 9, 43 = 64, 52 = 25, 63 = 216, 72 = 49, 83 = 512, 92 = 81$

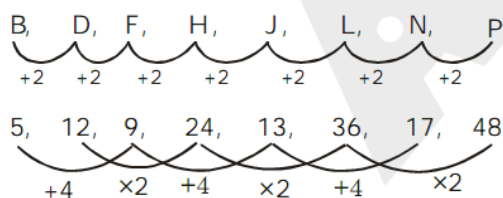
**17.**  $\frac{B}{5}, \frac{D}{12}, \frac{H}{24}, \frac{J}{13}, \frac{L}{36}, \frac{P}{48}$

(1)  $\frac{E}{15}, \frac{N}{18}$  (2)  $\frac{F}{18}, \frac{O}{16}$  (3)  $\frac{F}{9}, \frac{N}{17}$  (4)  $\frac{G}{9}, \frac{M}{17}$

**Ans.** (3)

**Sol.** B, D, F, H, J, L, N, P





18. 18. 121, 144, 169, 196, \_  
(1) 223 (2) 225 (3) 227 (4) 229

Ans. (2)

Sol.  $11^2 = 121$ ,  $12^2 = 144$ ,  $13^2 = 169$ ,  $14^2 = 196$ ,  $15^2 = 225$

19. 216, 343, 512, 729, \_, 1331  
(1) 1000 (2) 894 (3) 819 (4) 1211

Ans. (1)

Sol.  $6^3 = 216$ ,  $7^3 = 343$ ,  $8^3 = 512$ ,  $9^3 = 729$ ,  $10^3 = 1000$ ,  $11^3 = 1331$

20. 78Z, 6C, 15E, \_, 30J, 25M  
(1) 24H (2) 21G (3) 18I (4) 16H

Ans. (4)

Sol.  $78Z \Rightarrow 78 \div 3 = 26 \rightarrow Z$   
 $6C \Rightarrow 6 \div 2 = 3 \rightarrow C$   
 $15E \Rightarrow 15 \div 3 = 5 \rightarrow E$   
 So, Ans is  $16H \Rightarrow 16 \div 2 = 8 \rightarrow H$

21. F \_UR \_OU \_FO \_RF \_UR  
(1) OFRUO (2) FUOOR (3) FROUO (4) ROUFO

Ans. (1)

Sol. FOUR|FOUR|FOUR|FOUR

22. 0, 2, 6, \_, 20, 30, \_  
(1) 8 (2) 10 (3) 12 (4) 16

Ans. (3)

Sol.  $0 + 2 = 2$ ,  $2 + 4 = 6$ ,  $6 + 6 = 12$ ,  $12 + 8 = 20$ ,  $20 + 10 = 30$ .

23. 9, 10, 8, 11, \_, 12, 6, \_, 5  
(1) 7, 13 (2) 6, 13 (3) 7, 12 (4) 8, 12

Ans. (1)

Sol.

24. CD, XW, \_\_, VU, GH, \_\_, IJ, RQ  
(1) FE, TS (2) DE, UT (3) FG, ST (4) EF, TS

Ans. (4)

Sol. 1<sup>st</sup> Alternate series : CD, EF, GH, IJ

2<sup>nd</sup> Alternate series : XW, VU, TS, RQ

25. In a certain code language if HUNDRED is written as NUHDDER, what will be code of KITCHEN in same language?

- (1) HENTIKC (2) TIKCNEH (3) ITKHCNE (4) TKICNEH

Ans. (2)

Sol. HUN  $\rightarrow$  NUH

D  $\rightarrow$  D

RED  $\rightarrow$  DER

So, code is NUHDDER

KIT  $\rightarrow$  TIK

C  $\rightarrow$  C

HEN  $\rightarrow$  NEH

So, code is TIKCNEH



**26.** In a certain code language if POSTMAN is written as OPRTLBM, what will be code of BROTHER in same language?

- (1) ARNTGDQ (2) CSNSIRE (3) QAPTEIS (4) ASNTGFQ

**Ans.** (4)

**Sol.**  $P - 1 = O$   $B - 1 = A$   
 $O + 1 = P$   $R + 1 = S$   
 $S - 1 = R$   $O - 1 = N$   
 $T = T$   $T = T$   
 $M - 1 = L$   $H - 1 = G$   
 $A + 1 = B$   $E + 1 = F$   
 $N - 1 = M$   $R - 1 = Q$   
 Code is OPRTLBM Code is ASNTGFQ

**27.** In certain code language if BLOCK is written as 43, what will be code of HOUSE in same language?

- (1) 68 (2) 61 (3) 67 (4) 63

**Ans.** (1)

**Sol.**  $B = 2, L = 12, O = 15, C = 3, K = 11$   
 $2 + 12 + 15 + 3 + 11 = 43$   
 $H = 8, O = 15, U = 21, S = 19, E = 5$   
 $8 + 15 + 21 + 19 + 5 = 68$

**28.** In certain code language if BOUND is written as 112, what will be code of WHITE in same language?

- (1) 132 (2) 103 (3) 130 (4) 123

**Ans.** (3)

**Sol.**  $B = 2, O = 15, U = 21, N = 14, D = 4$   
 $2 + 15 + 21 + 14 + 4 = 56$   
 $56 \times 2 = 112$   
 $W = 23, H = 8, I = 9, T = 20, E = 5$   
 $23 + 8 + 9 + 20 + 5 = 65$   
 $65 \times 2 = 130$

**29.** In certain code language if ELEPHANT is written as LEPEAHTN, what will be code of QUESTION in same language?

- (1) UQSEITNO (2) SEUQNOTI (3) UQUESTINO (4) EUQITSON

**Ans.** (1)

**Sol.** In, ELEPHANT, Pair of two letter are inter changed, and code formed is LEPEAHTN

**30.** In certain code language if DRIVER is written as RDERVI, what will be code of WINDOW in same language?

- (1) WIWOND (2) WIDNOW (3) WWOIDN (4) WOWDIN

**Ans.** (3)

**Sol.**  $D R I V E R \Rightarrow R D E R V I$   
 $2\ 4\ 6\ 5\ 3\ 1 \Rightarrow 1\ 2\ 3\ 4\ 5\ 6$   
 $W I N D O W \Rightarrow W W O I D N$   
 $2\ 4\ 6\ 5\ 3\ 1 \Rightarrow 1\ 2\ 3\ 4\ 5\ 6$

**31.** In certain code language if FROG is written as 2116, what will be code of NEST in same language?

- (1) 3262 (2) 3364 (3) 3436 (4) 4363

**Ans.** (2)

**Sol.**  $F R O G \Rightarrow 6 + 18 + 15 + 7 \Rightarrow 46$   
 $46_2 \Rightarrow 2116$   
 $N E S T \Rightarrow 14 + 5 + 19 + 20 \Rightarrow 58$   
 $58_2 \Rightarrow 3364$



32. In certain code language if COVER is written as EMXCT, what will be code of BIRTH in same language?  
(1) DJTSJ (2) CHSSI (3) AGSQI (4) DGTRJ

Ans. (4)

Sol. C O V E R  $\Rightarrow$  E M X C T  
+2 -2 +2 -2 +2  
B I R T H  $\Rightarrow$  D G T R J  
+2 -2 +2 -2 +2

33. In a certain code language if XDRL is written as 12296, what will be code of NHTV is same language?  
(1) 72511 (2) 1481022 (3) 741011 (4) 7856

Ans. (3)

Sol. X  $\Rightarrow$  24  $\div$  2 = 12 N  $\Rightarrow$  14  $\div$  2 = 7  
D  $\Rightarrow$  4  $\div$  2 = 2 H  $\Rightarrow$  8  $\div$  2 = 4  
R  $\Rightarrow$  18  $\div$  2 = 9 T  $\Rightarrow$  20  $\div$  2 = 10  
L  $\Rightarrow$  12  $\div$  2 = 6 V  $\Rightarrow$  22  $\div$  2 = 11

34. In certain code language if HOCKEY is written as YOKCEH, what will be code of PENCIL in same language?  
(1) LECNIP (2) LICNEP (3) NCEILP (4) LICNPE

Ans. (1)

Sol. H O C K E Y  $\Rightarrow$  Y O K C E H  
6 2 4 3 5 1 1 2 3 4 5 6  
P E N C I L  $\Rightarrow$  L E C N I P  
6 2 4 3 5 1 1 2 3 4 5 6

35. In certain code language if RUBBER is written as BERRUB, what will be code of BUTTER in same language?  
(1) TTBUR (2) TERBUT (3) TUTREB (4) UBTTRE

Ans. (2)

Sol. RUBBER  $\rightarrow$  BER : RUB  
BUTTER  $\rightarrow$  TER : BUT

36. In certain code language is SHARP is written as 58034, what will be code of RASH in same language?  
(1) 3058 (2) 3045 (3) 3854 (4) 5384

Ans. (1)

Sol. S H A R P  $\rightarrow$  R A S H  
5 8 0 3 4 3 0 5 8

**Direction-** In question 37 to 48 the equations have become wrong because of the wrong order of signs. Choose the correct order in signs from the four options given below so as to make the equations correct. Write the alternative number of the correct option of the answer sheet against the corresponding question number-

37.  $2 + 40 - 92 = 8 \times 20$

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

Ans. (1)

Sol.  $2 \times 40 = 92 + 8 - 20$   
 $80 = 80$

38.  $34 - 6 = 18 \div 66 + 3$

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

Ans. (3)

Sol.  $34 + 6 - 18 = 66 \div 3$   
 $22 = 22$



39.  $2 - 21 \times 7 = 17 \div 11$

(1)  $\times - = \div$

(2)  $\times = - \div$

(3)  $= - \times \div$

(4)  $\times \div = -$

Ans. (4)

Sol.  $2 \times 21 \div 7 = 17 - 11$   
 $6 = 6$

40.  $7 \times 3 = 4 - 6 + 1$

(1)  $- + = \times$

(2)  $+ - = \times$

(3)  $- + \times =$

(4)  $+ - \times =$

Ans. (2)

Sol.  $7 + 3 - 4 = 6 \times 1$   
 $6 = 6$

41.  $63 = 7 \div 44 + 6 - 41$

(1)  $\div + = -$

(2)  $= + \div -$

(3)  $\div - = +$

(4)  $\div + = -$

Ans. (4)

Sol.  $63 \div 7 = 44 + 6 - 41$   
 $9 = 9$

42.  $69 \times 25 = 10 + 6 - 9$

(1)  $- + = \times$

(2)  $= + \times -$

(3)  $= \times + -$

(4)  $\times + - =$

Ans. (1)

Sol.  $69 - 25 + 10 = 6 \times 9$   
 $54 = 54$

43.  $41 = 32 + 10 = 9 + 54$

(1)  $+ = - +$

(2)  $+ - = +$

(3)  $= + + -$

(4)  $= + - +$

Ans. (2)

Sol.  $41 + 32 - 10 = 9 + 54$   
 $63 = 63$

44.  $5 = 5 + 3 \div 17 \times 8$

(1)  $\times + = \div$

(2)  $+ \times \div =$

(3)  $\times \div = +$

(4)  $+ = \div \times$

Ans. (3)

Sol.  $15 \times 5 \div 3 = 17 + 8$   
 $25 = 25$

45.  $38 + 2 - 46 = 33 \times 3$

(1)  $= \times + -$

(2)  $\times + = -$

(3)  $\times = + -$

(4)  $- + = \times$

Ans. (3)

Sol.  $38 \times 2 = 46 + 33 - 3$   
 $76 = 76$

46.  $15 = 7 \times 2 - 5 + 4$

(1)  $\times - + =$

(2)  $\times - + =$

(3)  $- + = \times$

(4)  $+ - = \times$

Ans. (4)

Sol.  $15 + 7 - 2 = 5 \times 4$   
 $20 = 20$

47.  $24 - 6 + 9 \div 2 = 7$

(1)  $\div + = -$

(2)  $+ = \div -$

(3)  $+ = - \div$

(4)  $+ - = \div$

Ans. (1)

Sol.  $24 \div 6 = 9 + 2 - 7$   
 $4 = 4$

48.  $5 = 8 - 29 + 4 \times 15$

(1)  $- = + \times$

(2)  $+ - = \times$

(3)  $\times = - +$

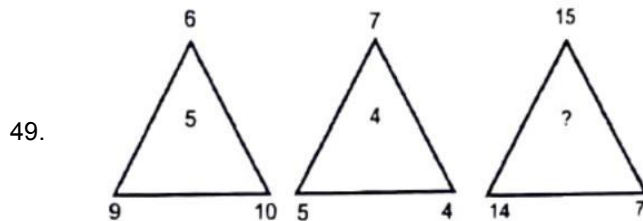
(4)  $+ \times = -$

Ans. (3)



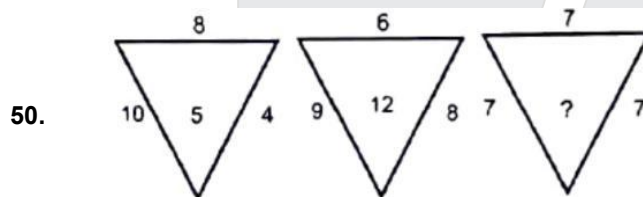
**Sol.**  $5 \times 8 = 29 - 4 + 15$   
 $40 = 40$

**Direction-** Question no 49 to 58 numbers are lace in figure on the basis of some rules. One place in vacant which is indicated as (?). Find out the correct alternative for the vacant place and write its number against the proper question number on your answer sheet-



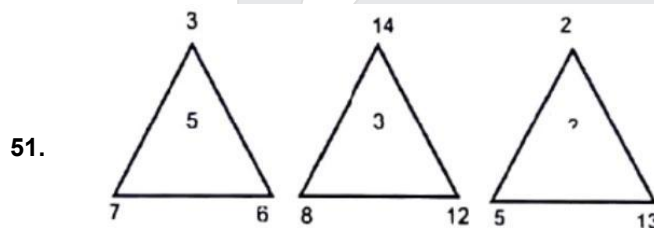
- Ans.** (1) 3 (2) 6 (3) 8 (4) 10

**Sol.**  $15 + 14 + 7 = \sqrt{36} = 6$   
 $9 + 6 + 10 = \sqrt{25} = 5$   
 $14 + 7 + 15 = \sqrt{36} = 6$   
 $7 + 5 + 4 = \sqrt{16} = 4$



- Ans.** (1) 19 (2) 13 (3) 7 (4) 4

**Sol.**  $(10 \times 4) \div 8 = 5$   
 $(9 \times 8) \div 6 = 12$   
 $(7 \times 7) \div 7 = 7$



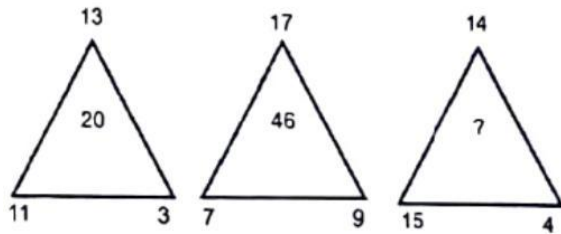
- Ans.** (1) 4 (2) 6 (3) 8 (4) 10

$\frac{(7+6)-3}{2} = 5$

$\frac{(12+8)-14}{2} = 3$

**Sol.**  $\frac{(5+13)-2}{2} = 8$

52.



(1) 20

(2) 57

(3) 28

(4) 46

Ans.

(4)

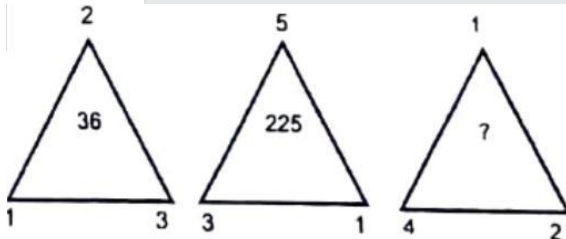
Sol.

$$(11 \times 3) - 13 = 20$$

$$(7 \times 9) - 17 = 46$$

$$(15 \times 4) - 14 = 46$$

53.



(1) 49

(2) 64

(3) 89

(4) 120

Ans.

(2)

$$(3 \times 2 \times 1)^2 = 36$$

$$(3 \times 1 \times 5)^2 = 225$$

$$(4 \times 2 \times 1)^2 = 64$$

54.



(1) 25

(2) 52

(3) 21

(4) 12

Ans.

(1)

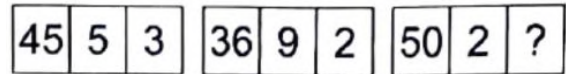
Sol.

$$(9 \times 8) + (9 - 8) = 73$$

$$(6 \times 4) + (6 - 4) = 26$$

$$(7 \times 3) + (7 - 3) = 25$$

55.



(1) 4

(2) 7

(3) 5

(4) 8

Ans.

(3)

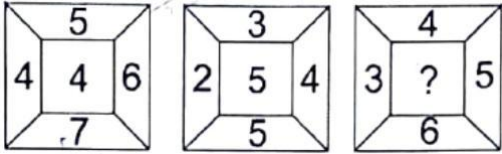
$$(45 \div 5)^{\frac{1}{2}} = 3$$

$$(36 \div 9)^{\frac{1}{2}} = 2$$

Sol.

$$(50 \div 2)^{\frac{1}{2}} = 5$$



56.   
(1) 6 (2) 7 (3) 8 (4) 9

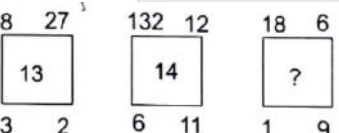
**Ans.**

**Sol.**  $5 + 6 + 7 + 4 = 22 \Rightarrow 2 + 2 = 4$   
 $3 + 4 + 5 + 2 = 14 \Rightarrow 1 + 4 = 5$   
 $4 + 5 + 6 + 3 = 18 \Rightarrow 1 + 8 = 9$

57.   
(1) 18 (2) 28 (3) 38 (4) 48

**Ans.**

**Sol.**  $(8 \times 5) - (7 \times 2) = 26$   
 $(11 \times 3) - (2 \times 12) = 9$   
 $(17 \times 4) - (6 \times 5) = 38$

58.   
(1) 15 (2) 12 (3) 10 (4) 8

**Ans.**

**Sol.**  $(27 \div 3) + (8 \div 2) = 13$   
 $(13 \div 11) + (12 \div 6) = 14$   
 $(18 \div 9) + (6 \div 1) = 8$

**Direction- Question no 59 to 63 are based on the following information. Read carefully the information and find out the correct alternative for each question**

Ramesh likes to study Hindi, English and Maths.  
 Suresh likes to study Science, English and Hindi.  
 Ahmad like to study English, Maths and Geography.  
 Bobby likes to study Maths, Science and Hindi.  
 Gopal likes to study only Hindi.

59. Which subject is liked by most of the boys?  
 (1) Science (2) English (3) Hindi (4) Maths

**Ans.**

**Sol.** Ramesh - H E M  
 Suresh - H E S  
 Ahmed - E M G  
 Bobby - H M S  
 Gopal - H

60. How many boys like English?  
 (1) One (2) Two (3) Three (4) Five

**Ans.**

**Sol.** Ramesh - H E M  
 Suresh - H E S  
 Ahmed - E M G  
 Bobby - H M S



Gopal - H

61. How many boys like Science?

- (1) One (2) Two (3) Three (4) Five

Ans. (2)

Sol. Ramesh - H E M  
Suresh - H E S  
Ahmed - E M G  
Bobby - H M S  
Gopal - H

62. Which subject is liked by least of the boys?

- (1) Geography (2) English (3) Science (4) Maths

Ans. (1)

Sol. Ramesh - H E M  
Suresh - H E S  
Ahmed - E M G  
Bobby - H M  
Gopal - H

63. How many boys like Maths?

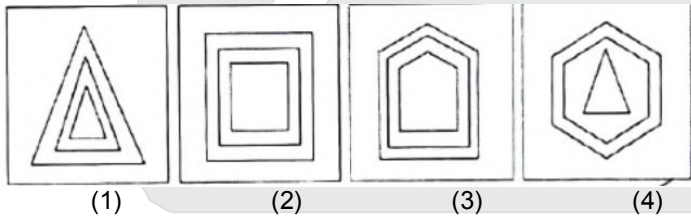
- (1) Four (2) Three (3) Two (4) One

Ans. (2)

Sol. Ramesh - H E M  
Suresh - H E S  
Ahmed - E M G  
Bobby - H M S  
Gopal - H

**Direction- Question no 64 to 68** each question has four terms (figure) are alike in some way. One term (figure) is different from three others. Find out the correct term which is different from three others and write its alternative number of your answer sheet against the proper question number-

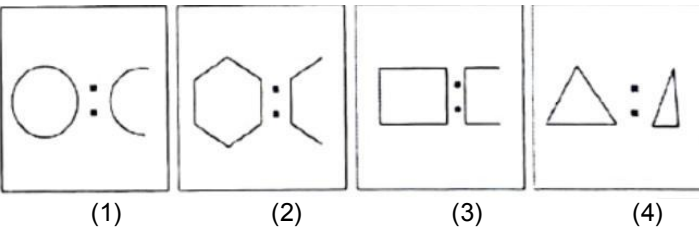
64.



Ans. (4)

Sol. Different number of sides

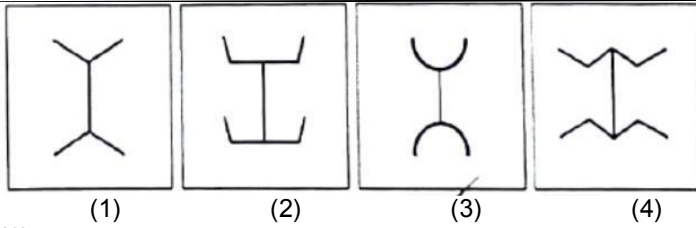
65.



Ans. (4)

Sol. Complete shape

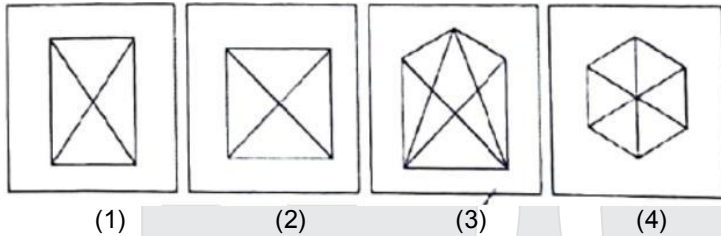
66.



**Ans. (2)**

**Sol.** Upper and lower part in same direction

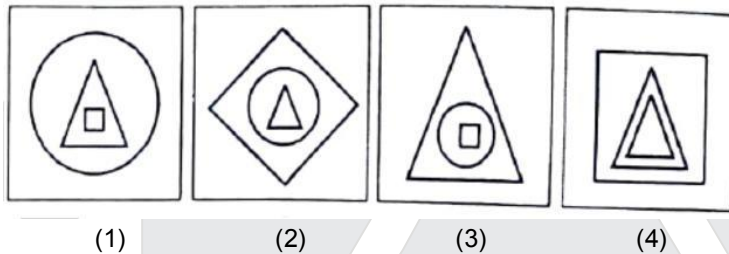
67.



**Ans. (3)**

**Sol.** Unequal diagonals

68.



**Ans. (4)**

**Sol.** 2 Triangle and no circle

Direction- In question 69 84 there are four terms in each question. The relation that exist between the terms left to the symbol :: is the same between the terms right to the symbol :: Out of the four terms one term is missing in each question. The missing term is one of the four alternatives given below each equation. Find out the correct alternative and write its number on your answer sheet against the proper question-

69. RSTY : YXWV :: GHIJ : ?

- (1) NMLK (2) MLKJ (3) NLMK (4) MKJL

**Ans. (1)**

**Sol.** Reverse alphabet

70.  $\frac{16}{3} : 4096 :: \frac{22}{2} : ?$

- (1) 448 (2) 484 (3) 243 (4) 231

**Ans. (2)**

**Sol.**  $(16)^3 \rightarrow 4096$   
 $(22)^2 \rightarrow 484$

71. DGK : 462 :: NIF : ?

- (1) 648 (2) 630 (3) 540 (4) 756

**Ans. (\*)**

**Sol. (\*)**

72. Cold : Hot :: Life : ?

- (1) Age (2) Death (3) Pleasure (4) Health

**Ans. (2)**



**Sol.** Opposite

**73.** Lock : Key :: Needle : ?

- (1) Cloth (2) Iron (3) Tailor (4) Thread

**Ans.** (4)  
**Sol.** Pair

**74.** Cricket : Run :: Hockey : ?

- (1) Field (2) Goal (3) Ball (4) Player

**Ans.** (2)  
**Sol.** Relation of game

**75.** MAN : REHTAF :: WOMAN : ?

- (1) RAHTOM (2) RETHAM (3) REHTAM (4) REHTOM

**Ans.** (4)  
**Sol.** MAN → FATHER reverse order REHTAF  
WOMAN → MOTHER reverse order REHTOM

**76.** Ice : Water :: Water : ?

- (1) Steam (2) River (3) Rain (4) Sea

**Ans.** (1)  
**Sol.** Change of state

**77.**  $\frac{2}{6} : 36 :: \frac{3}{2} : ?$

- (1) 9 (2) 8 (3) 6 (4) 5

**Ans.** (2)  
**Sol.**  $(6)^2 = 36$   
 $(2)^3 = 8$

**78.** Brick : Soil :: Bread : ?

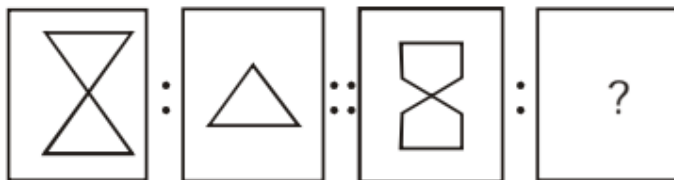
- (1) Fire (2) Cook (3) Wheat (4) Flour

**Ans.** (4)  
**Sol.** Making from flour

**79.** 491 : 7 :: 534 : ?

- (1) 6 (2) 9 (3) 5 (4) 8

**Ans.** (1)  
**Sol.**  $4 + 9 + 1 = 14 \div 2 = 7$   
 $5 + 3 + 4 = 12 \div 2 = 6$



**80.**

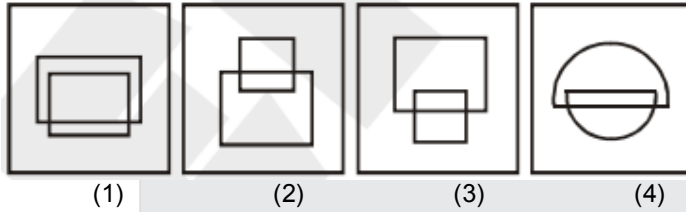
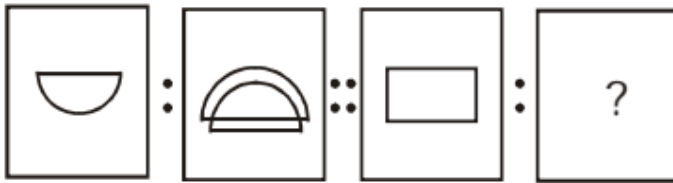


- (1) (2) (3) (4)

**Ans.** (2)

**Sol.** Lower part of the figure

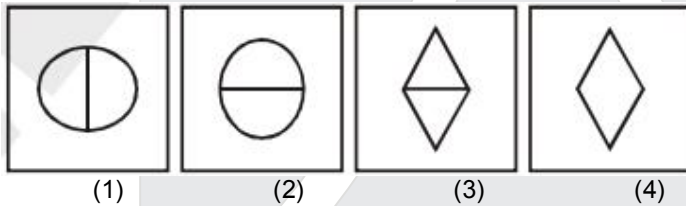
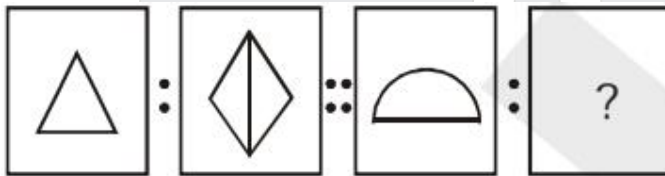
81.



Ans. (1)

Sol. Observation based question

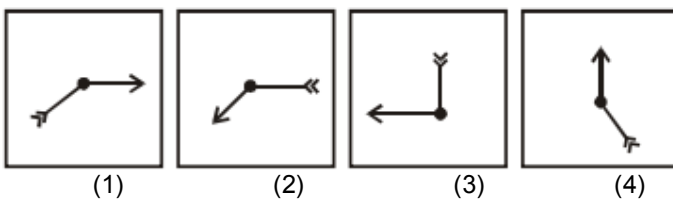
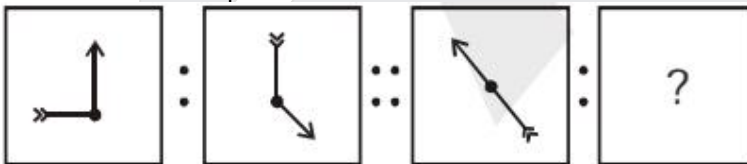
82.



Ans. (1)

Sol. Observation based question

83.

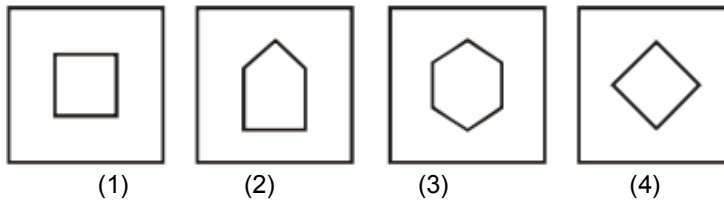


Ans. (1)

Sol. Observation based question

84.



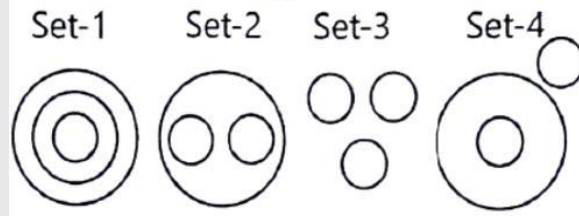


**Ans. (2)**

**Sol.** Number of sides 5

**Direction-** For question 85 to 95 four sets of circles have been given below. Three circles of sets have some relation with each other. Questions given below have three words each of which are also related to each other in some way. This relation between words is similar to that in one of the sets of circles. Find it out from the four options given below each question and write its serial number against corresponding question number on your answer sheet-

**Figure**



**85.** Hospital Doctor Nurse

(1) Set-4

(2) Set-1

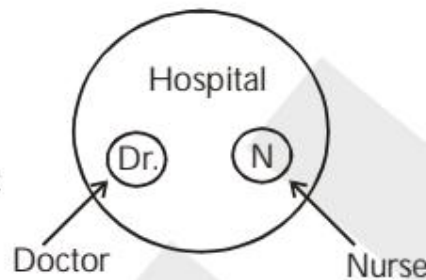
(3) Set-2

(4) Set-3

**Ans. (3)**

**Sol.**

Observation of set



**86.** Advocate Female Male

(1) Set-4

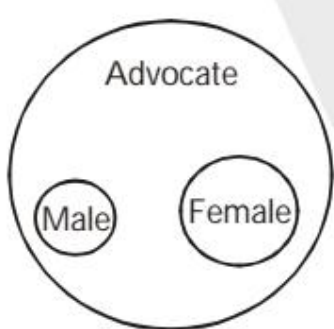
(2) Set-1

(3) Set-3

(4) Set-2

**Ans. (4)**

**Sol.**



87. City Market Shop

(1) Set-1

(2) Set-4

(3) Set-3

(4) Set-2

Ans. (1)

Sol.



88. Minute Second Gram

(1) Set-1

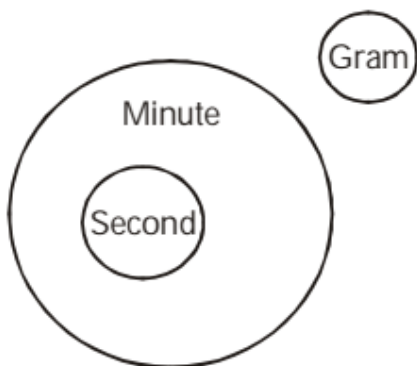
(2) Set-2

(3) Set-3

(4) Set-4

Ans. (4)

Sol.



89. Cricket hockey Football

(1) Set-2

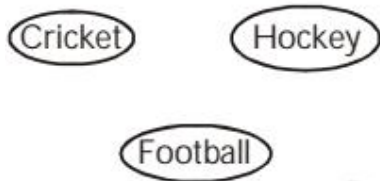
(2) Set-3

(3) Set-1

(4) Set-4

Ans. (2)

Sol.



90. Furniture Chair Table

(1) Set - 1

(2) Set - 4

(3) Set - 3

(4) Set - 2

Ans. (4)



**Resonance**<sup>®</sup>  
Educating for better tomorrow

Corporate Office : CG Tower, A-46 & 52, IPIA, Near City Mall, Jhalawar Road, Kota (Raj.)- 324005

PCCP Head Office: Plot No. A-51 [A], IPIA, Near Resonance CG Tower ; Contact : 0744-6635569, 2777769

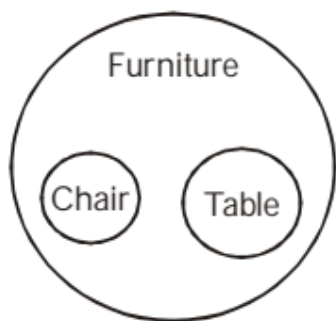
Website : [www.pccp.resonance.ac.in](http://www.pccp.resonance.ac.in) | E-mail : [pccp@resonance.ac.in](mailto:pccp@resonance.ac.in)

Toll Free : | 1800 258 5555 | CIN: U80302RJ2007PLC024029

**MAT\_PAPER**

**NTSE STAGE-I-2019-20 PAGE-15**

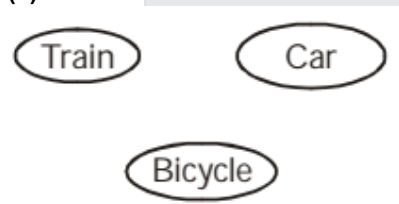
Sol.



91. Train Car Bicycle

Ans. (1) Set-1 (2) Set-4 (3) Set-3 (4) Set-2

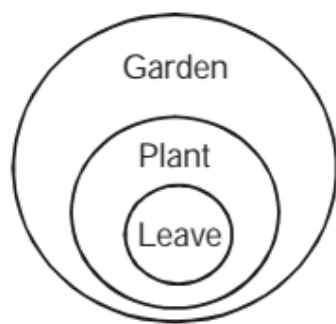
Sol.



92. Garden Plant Leave

Ans. (1) Set-3 (2) Set-1 (3) Set-4 (4) Set-2

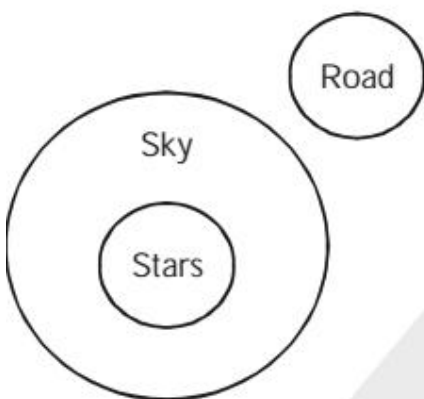
Sol.



93. Sky Stars Road

Ans. (1) Set-4 (2) Set-3 (3) Set-2 (4) Set-1

Sol.



**Resonance**  
Educating for better tomorrow

Corporate Office : CG Tower, A-46 & 52, IPIA, Near City Mall, Jhalawar Road, Kota (Raj.)- 324005

PCCP Head Office: Plot No. A-51 [A], IPIA, Near Resonance CG Tower ; Contact : 0744-6635569, 2777769

Website : [www.pccp.resonance.ac.in](http://www.pccp.resonance.ac.in) | E-mail : [pccp@resonance.ac.in](mailto:pccp@resonance.ac.in)

Toll Free : | 1800 258 5555 | CIN: U80302RJ2007PLC024029

**MAT\_PAPER**

**NTSE STAGE-I-2019-20 PAGE-16**



94. River Fish Cat

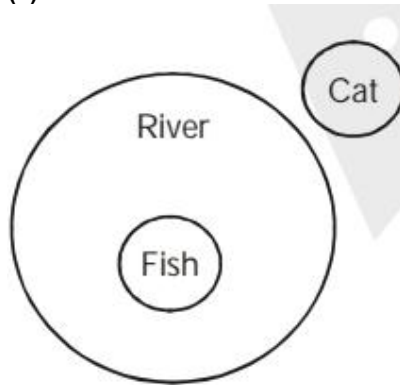
(1) Set-3

(2) Set-4

(3) Set-1

(4) Set-2

Ans. (2)



Sol.

95. Pond Water Frog

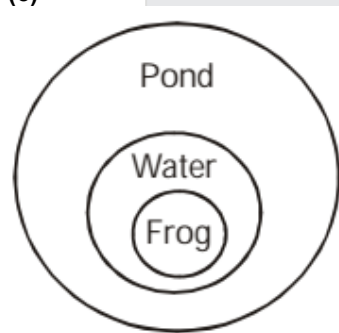
(1) Set-3

(2) Set-2

(3) Set-1

(4) Set-4

Ans. (3)



Sol.

**Direction-** Question no 96 to 100 are based on following statement. Read the statement carefully and find out correct alternative given for the question and write correct alternative number on your answer sheet against the corresponding question *Sam's age is one fourth of Ali's age. Sam is eleven years elder to*

*Rahul but Deepak is five years younger to Rahul then-*

96. Who is eldest

(1) Ali

(2) Sam

(3) Deepak

(4) Rahul

Ans. (1)

Sol.  $\text{Sam} = \frac{\text{Ali}}{4}$

$\text{Sam} = 11 + \text{Rahul}$

$\text{Deepak} = \text{Rahul} - 5$

97. Who is youngest

(1) Ali

(2) Sam

(3) Deepak

(4) Rahul

Ans. (3)

Sol.  $\text{Sam} = \frac{\text{Ali}}{4}$

$\text{Sam} = 11 + \text{Rahul}$

$\text{Deepak} = \text{Rahul} - 5$

98. If Deepak's age is nine years, what is the age of Ali?

(1) 85 yrs

(2) 90 yrs

(3) 97 yrs

(4) 100 yrs



**Ans. (4)****Sol.** Rahul = 14  
Sam = 25  
Ali = 100**99.** What is the difference between the age of Sam and Deepak?

(1) 16 yrs (2) 9 yrs (3) 11 yrs (4) 5 yrs

**Ans. (1)****Sol.** Sam = Deepak + 16**100.** If Deepak's age is eight years, how many years is Ali elder to Deepak?

(1) 92 yrs (2) 88 yrs (3) 80 yrs (4) 78 yrs

**Ans. (2)****Sol.** Deepak – 8Sam = 24, Ali = 96,  $96 - 8 = 88$  year