

**NTSE Practice Paper -09**  
**Scholastic Aptitude Test (Mental Ability Test)**

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**Direction:- In each question there is a number series with one term missing shown by question mark(?). This is one of the alternatives among the four numbers given under it. That number is-a**

1. 2, 30, 6, 20, 12, 12, (?)
  - a. 26
  - b. 22
  - c. 20 **(Ans.)**
  - d. 24
2. 6, 20, 36, 48, 50, (?), 0
  - a. 36 **(Ans.)**
  - b. 40
  - c. 46
  - d. 56
3. 7, 15, 28, 59, 114, (?)
  - a. 243
  - b. 233 **(Ans.)**
  - c. 213
  - d. 223
4. 25, 49, 89, 145, 217, (?)
  - a. 305 **(Ans.)**
  - b. 327
  - c. 309
  - d. 303
5. 0, 2, 2, 3, 3, 5, 8, 4, 10, (?), 5, 17
  - a. 6
  - b. 7
  - c. 9
  - d. 15 **(Ans.)**

**(Question 6-10)**

**Directions:** These questions consists of a number series which contains a wrong term. This term is given as one of the four alternatives among the four numbers given below. The wrong term is-

6. 89, 78, 86, 80, 85, 82, 83
  - a. 83
  - b. 82
  - c. 86 **(Ans.)**
  - d. 78
7. 1, 1, 3, 9, 6, 36, 10, 100, 16, 225
  - a. 225
  - b. 16 **(Ans.)**
  - c. 10
  - d. 9
8. 444, 300, 200, 136, 87, 84, 80
  - a. 300
  - b. 200
  - c. 136
  - d. 87 **(Ans.)**
9. 8, 15, 31, 61, 123, 247, 491
  - a. 247 **(Ans.)**
  - b. 491
  - c. 121
  - d. 61
10. 3, 6, 24, 30, 63, 72, 122, 132
  - a. 132
  - b. 30
  - c. 122 **(Ans.)**
  - d. 72

**(Question 11-14)**

**Direction:** Each question consists of four groups. One set is different from other three in someway. Find out the different set-

- 
11. a. PROQN  
b. DFCEG (**Ans.**)  
c. GIFHE  
d. KMJLI
12. a. ACEGF  
b. FHJLK  
c. KMOQP  
d. UWYZA (**Ans.**)
13. a. CADGE  
b. JHKNL  
c. ECFGI (**Ans.**)  
d. XVBZ
14. a. 6253  
b. 1881  
c. 7043  
d. 8210 (**Ans.**)

**(Questions 15-19)**

**Directions:** In the following questions there is a letter series with one term missing shown by (?).

**Find the term from the four given alternatives.**

15. YANWY, DFMBD, IKNGI, NPMLN, (?), XZMVX  
a. RUMSR  
b. SUNQS (**Ans.**)  
c. UWNSU  
d. VUMTV
16. PEXKW, RFWMU, TGVOS, VHUQQ, XITSO, (?)  
a. ZJSUM (**Ans.**)  
b. YJSUZ  
c. ZKSVJ  
d. JZSTN
17. AYBZC, DWEXF, GUHVI, JSKTL, (?), POQPR  
a. MQDRN

- b. QMONR
- c. MQNRO (**Ans.**)
- d. NQMOR

18. ZYYZR, ABVUN, (?), BCUTM, XWABT, CDTSL

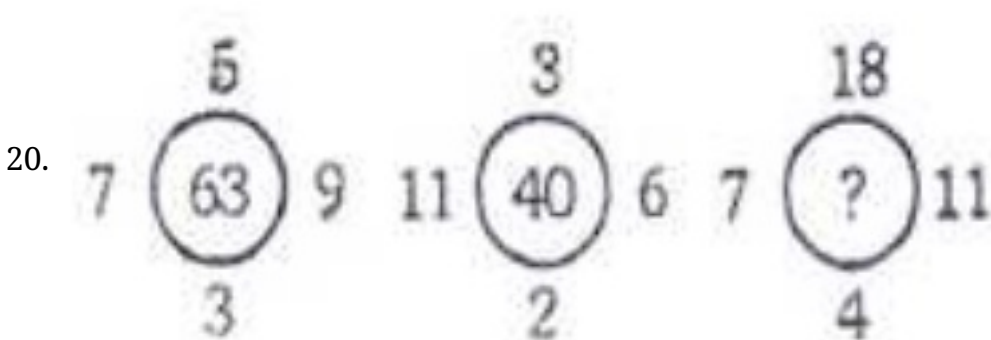
- a. YXZAS (**Ans.**)
- b. ZYABT
- c. XWYZR
- d. YXZAB

19. deb, ijg, nol, (?), xyv

- a. rsp
- b. stp
- c. rsq
- d. stq (**Ans.**)

**(Questions 20-23)**

**Direction:** In each question there are circles. Certain numbers are given inside /outside the circles according to a particular rule. In each question one of the circle has a (?) mark inside it. Chose the answer to fill in the space marked (?) from the given alternatives.



- a. 144 (**Ans.**)
- b. 136
- c. 135
- d. 124

21.  $12 \begin{array}{c} 8 \\ \circlearrowleft 64 \circlearrowright 6 \\ 9 \end{array} 5 \begin{array}{c} 12 \\ \circlearrowleft 75 \circlearrowright 10 \\ 8 \end{array} 21 \begin{array}{c} 9 \\ \circlearrowleft ? \circlearrowright 12 \\ 14 \end{array}$

- a. 102
- b. 152
- c. 162 (Ans.)
- d. 172

22.  $7 \begin{array}{c} 4 \\ \circlearrowleft 66 \circlearrowright 8 \\ 6 \end{array} 3 \begin{array}{c} 7 \\ \circlearrowleft 38 \circlearrowright 9 \\ 4 \end{array} 11 \begin{array}{c} 7 \\ \circlearrowleft ? \circlearrowright 9 \\ 2 \end{array}$

- a. 91
- b. 108 (Ans.)
- c. 116
- d. 119

23.  $4 \begin{array}{c} 3 \\ \circlearrowleft 7.50 \circlearrowright 5 \\ 2 \end{array} 5 \begin{array}{c} 6 \\ \circlearrowleft 11.25 \circlearrowright 2 \\ 3 \end{array} 5 \begin{array}{c} 2 \\ \circlearrowleft ? \circlearrowright 2 \\ 9 \end{array}$

- a. 10.25
- b. 10.50
- c. 11.25 (Ans.)
- d. 11.50

(Questions 24-26)

**Directions:** These questions are based on letter series in which some of the letters are missing. The missing letters are given in the proper sequence in one of the alternatives among the four given under each question. Find out the correct alternatives for each question.

24. ac \_ acc \_ \_ da \_ bba \_

- a. cdabc
- b. badaa (Ans.)
- c. cdbcd
- d. dbacd

25. abb \_ \_ ab \_ b \_ bba \_ a

- a. bbbab (Ans.)
- b. babba
- c. abaab
- d. bbabb

26. b \_ a \_ bab \_ ab \_ a

- a. baba
- b. babb
- c. abab (Ans.)
- d. abba

**(Questions 27-31)**

**Directions:** Out of nine cells of a square one cell is left blank and in the rest of the cells numbers are written which follow some rule. Get the rule and find out the proper option for the blank cell (?)

27.

2	72	56
?	0	42
12	20	30

- a. 4
- b. 6 **(Ans.)**
- c. 8
- d. 10

28.

91	64	73
84	76	61
25	60	?

- a. 66 **(Ans.)**
- b. 68
- c. 69
- d. 71

29.

5	10	30
?	3	12
28	14	32

- a. 34
- b. 16
- c. 7
- d. 1 **(Ans.)**

30.

7	32	?
31	8	25
11	24	9

- a. 50
- b. 48
- c. 47 (Ans.)
- d. 51

31.

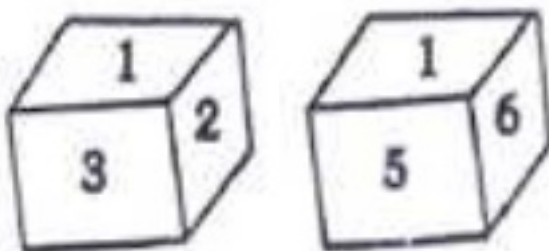
4	20	25
27	81	9
11	44	?

- a. 4
- b. 16 (Ans.)
- c. 30
- d. 55

(Question 32 & 33)

Directions: Find out the correct alternative of the questions based on the Dice figures.

32.

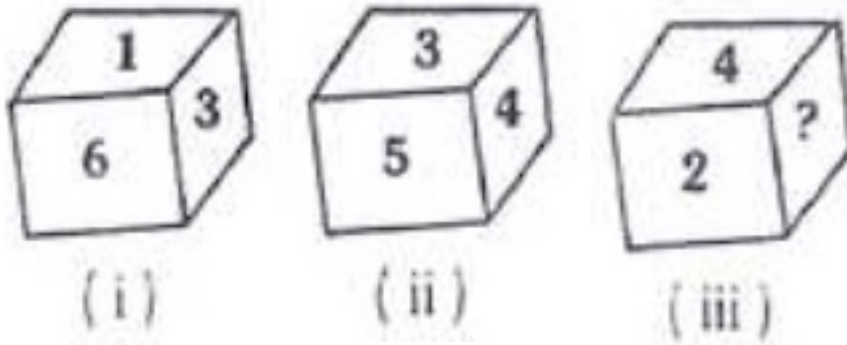




The number opposite side the face having the no. 4 will be

- a. 1 **(Ans.)**
- b. 2
- c. 5
- d. 6

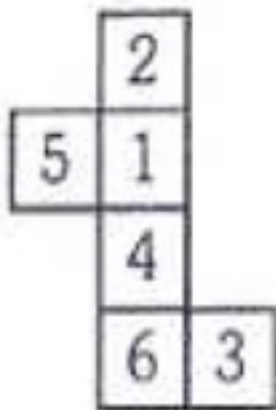
33.



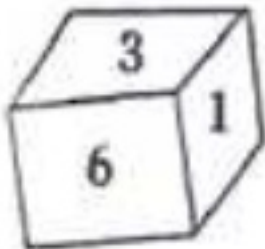
Three positions of a Dice are shown. In figure (iii) which number will come in place of (?).

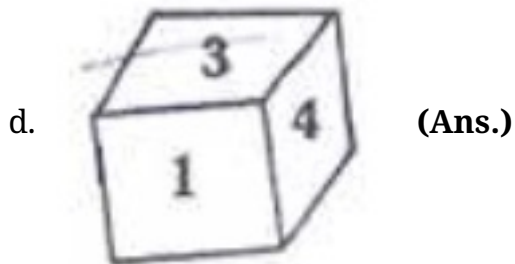
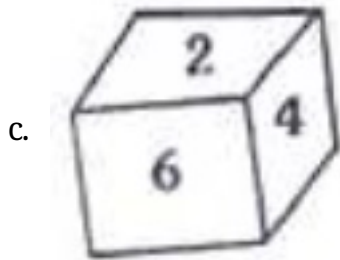
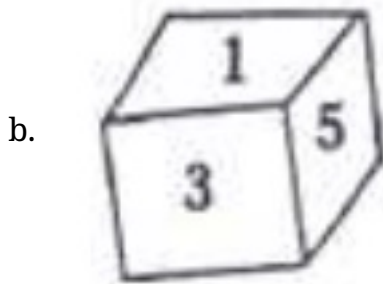
- a. 5
- b. 3
- c. 6
- d. 1 **(Ans.)**

34. The following figure is converted into a cube. Its correct shape will be

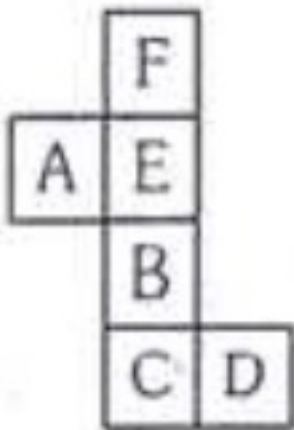


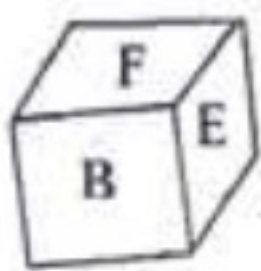
a.





35. The following figure is converted into a cube. Its four positions (a), (b), (c) and (d) are shown. On the basis of these select correct alternative.

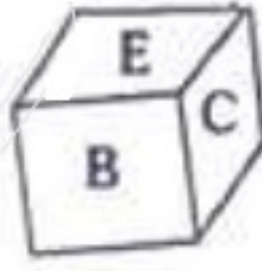




(a)



(b)



(c)



(d)

- a. A only
- b. B only **(Ans.)**
- c. A and C only
- d. A, B, C and D

**(Questions 36-40)**

**Directions:** The following question are based on the arrangement of numbers in the form of a pyramid. In each question there is some relationship between the two numbers on the left of the (::).

The same relationship exists between the two terms in the right of which one is missing. Find the missing are from the given alternatives.

						1							
					2	3	4						
			9	8	7	6	5						
		10	11	12	13	14	14	16					
	25	24	23	22	21	20	19	18	17				
26	27	28	29	30	31	32	33	34	35	36			
49	48	47	46	45	44	43	42	41	40	39	38	37	

36. 132220 : 211412 :: 222931 : (?)

- a. 304345
- b. 302123 **(Ans.)**
- c. 442931
- d. 312022

37. 2873 : 13212014 :: 10242311 : (?)

- a. 29282423
- b. 28274746
- c. 25272824

d. 29454430 **(Ans.)**

38. 241214 : 752119 :: 14163234 : (?)

a. 19174137 **(Ans.)**

b. 20184240

c. 21194341

d. 20224244

39. 25224447 : 23204245 :: 11143229 : (?)

a. 13163431 **(Ans.)**

b. 24214341

c. 24214346

d. 13102421

40. 82224 : 133133 :: 62022 : (?)

a. 91221

b. 81312

c. 153335 **(Ans.)**

d. 51921

**(Question 41-45)**

**Direction: Words in capital letters in Column-I are written in small letters in a code language in column-II. Decode the Language and find out the correct alternative for the given letters in each questions.**

<b>(Column – I)</b>	<b>(Column – II)</b>
HERO	tbfw
JOIN	bakp
LAZY	nsvg
MINE	pdkt
PART	rwsx
SAURY	wveos
BLUE	eglt
CIGAR	vsqwp

WRIT	wpxy
VIRUS	pzwoe
QUACK	jqems
PIRL	wprg

41. Code for letters in the word TOIL are

- a. pxba
- b. bp gn
- c. bpxg **(Ans.)**
- d. mpxg

42. Code for letters in the word COST are

- a. boqx **(Ans.)**
- b. xqps
- c. qost
- d. xqnr

43. Code for letters in the ULCER are

- a. ggwmr
- b. teqwp
- c. ktegp
- d. gteqw **(Ans.)**

44. Code for letters in the word SINE are

- a. ptkl
- b. toka
- c. ptok **(Ans.)**
- d. optb

45. Code for letters in the word ARCH are

- a. frsq
- b. wfsq **(Ans.)**
- c. wqfq
- d. sqfn

46. A and B are brother. C and D are sisters. A's son is D's brother. How is B related to C?

- a. Brother

- b. Father
- c. Uncle **(Ans.)**
- d. Son

**(Question 47)**

**Directions: Read the following information carefully and answer the question given below:-**

47. If  $P + Q - R$ , which one of the following is true?

- a. R is the mother of P **(Ans.)**
- b. R is the sister-in-law of P
- c. R is the aunt of P
- d. R is the mother-in-law of P

**(Questions 48-50)**

**Directions: Find out the missing one from the given alternatives.**

48.  $08 : 28 :: (?) : 65$

- a. 9
- b. 12
- c. 15
- d. 18 **(Ans.)**

49.  $35 : 91 :: 189 : (?)$

- a. 343
- b. 341 **(Ans.)**
- c. 280
- d. 210

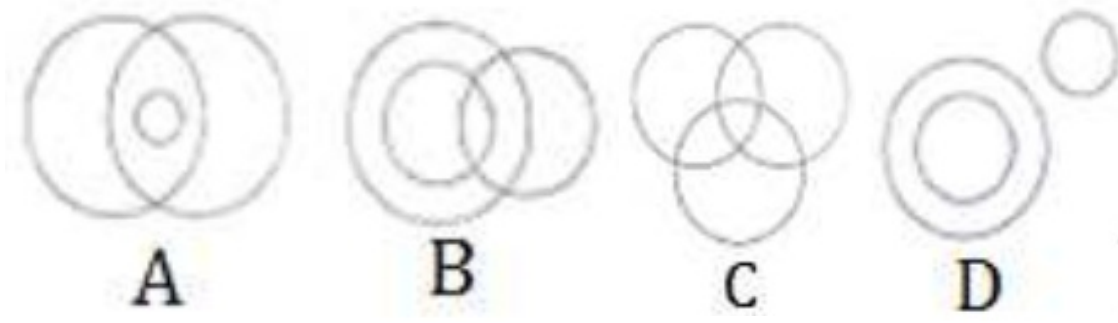
50.  $\frac{7}{11} : \frac{13}{17} :: \frac{19}{23} : (?)$

- a.  $\frac{25}{27}$
- b.  $\frac{29}{31}$
- c.  $\frac{23}{29}$

d.  $\frac{29}{33}$  (Ans.)

**(Questions 51-53)**

**Directions:** Following four diagrams marked 1, 2, 3 and 4 are given as alternatives. Choose the best suitable alternative diagram marked 1, 2, 3 and 4 the one that represent the best relationship amongst the three given groups.



51. Birds, Crows, Cats

- a. A
- b. B
- c. C
- d. D (Ans.)

52. Snakes, Land creatures, Water eveatures

- a. A (Ans.)
- b. B
- c. C
- d. D

53. Males, Nephew, Nieces

- a. A
- b. B
- c. C
- d. D (Ans.)

**(Questions 54-56)**

**Directions:** In the following questions some relations are written by particular indicators as shown below

○ = *greater than*

+ = *equal to*

$\Delta = \text{not equal to}$

$\phi = \text{not equal to}$

$\times = \text{not less than}$

$\square = \text{less than}$

**Find out the correct answer for each question.**

54. If  $P\Delta q\bigcirc r$ , it is possible that

- a.  $p\times q\times r$  **(Ans.)**
- b.  $p\times q\square r$
- c.  $p\square q\phi r$
- d.  $p\phi q\phi r$

55. If  $p\square q\Delta r$ , it is not possible that

- a.  $p\Delta q\phi r$
- b.  $p\square q\Delta r$
- c.  $p\phi q\square r$
- d.  $p+q\times r$  **(Ans.)**

56. If  $p\times q\phi r$ , it is not possible that

- a.  $p\Delta q\square r$
- b.  $p\times q+r$
- c.  $p\Delta q\bigcirc r$  **(Ans.)**
- d.  $p\bigcirc q+r$

57. If your birthday 30th June, 2003 falls on Monday, on what day of the week does your birth day falls in the year 2005?

- a. Sunday
- b. Tuesday
- c. Wednesday
- d. Thursday **(Ans.)**

58. On what day of the week India will celebrate its Republic Day on 26th January, 2015?

- a. Sunday
- b. Monday **(Ans.)**
- c. Tuesday
- d. Wednesday

59. At what angle are the hands of a clock inclined at 30 minutes past 6?



a.  $7\frac{1}{2}^\circ$

b.  $11\frac{1}{2}^\circ$

c.  $15^\circ$  (Ans.)

d.  $23^\circ$

60. A clock is set to show the correct time at 11 am. The clock gains 12 minutes in 12 hours what will be the true time when the watch indicates 1 pm. On the 6th day?

a. 10 am

b. 11 am (Ans.)

c. 12 noon

d. None of these

(Questions 61-64)

**Directions:** Two sets of the figures are given. One set of Question-figures and another set is of

**Answer-figures.** Question figures are arranged in a sequence. One figure from the answer figure is to be selected such that it can be placed after the series of Question-figure. Serial number of the selected Answers-figure.

61.



a.



b.



(Ans.)

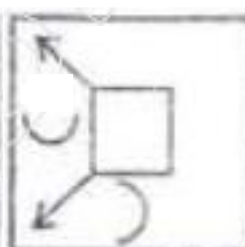
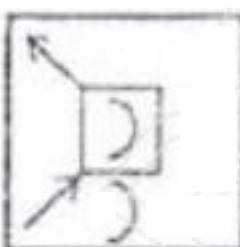
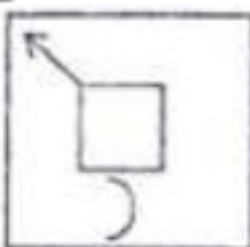
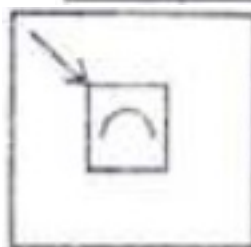
c.



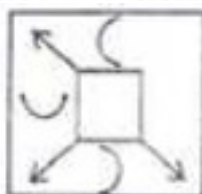
d.



62.



a.



(Ans.)

b.



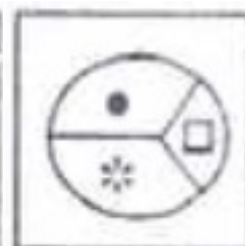
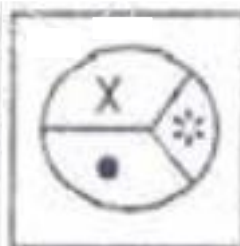
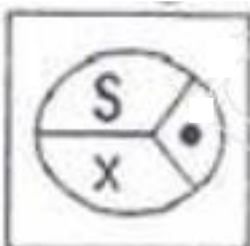
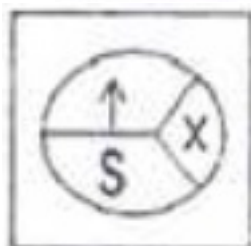
c.



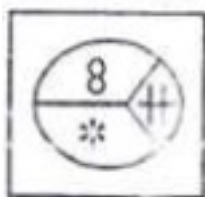
d.



63.



a.



b.



c.

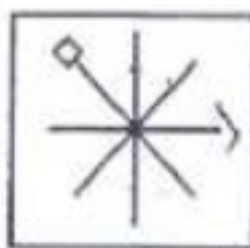
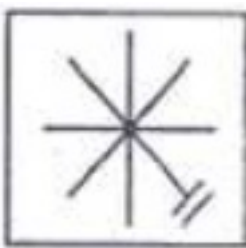
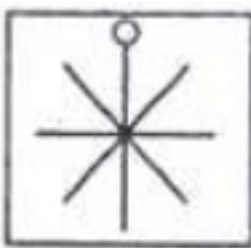
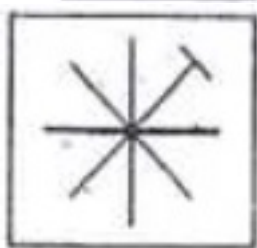


d.



(Ans.)

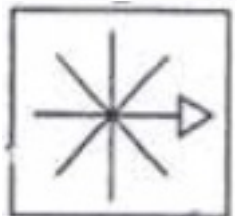
64.



a.



b.



(Ans.)

c.



d.



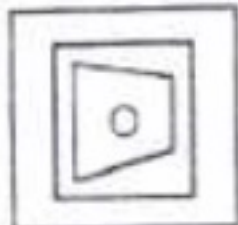
(Questions 65-68)

**Direction:** In each of the following questions four figures are given. One of these figures does not fit with the rest of the figures. Find out that correct serial number.

65. a.



b.

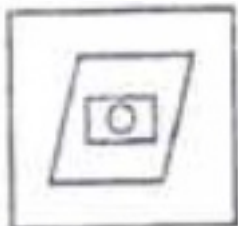


c.



(Ans.)

d.

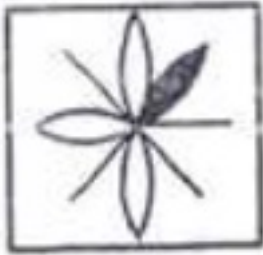


66. a.



(Ans.)

b.



c.

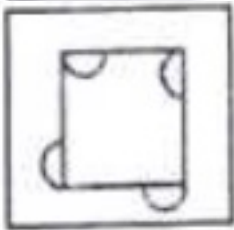


d.

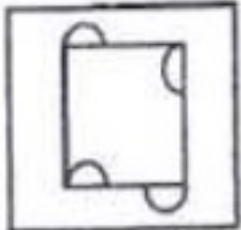


67. a.

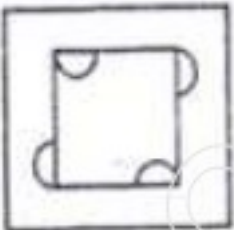
(Ans.)



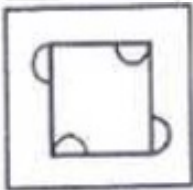
b.



c.



d.



68. a.



b.



c.



d.

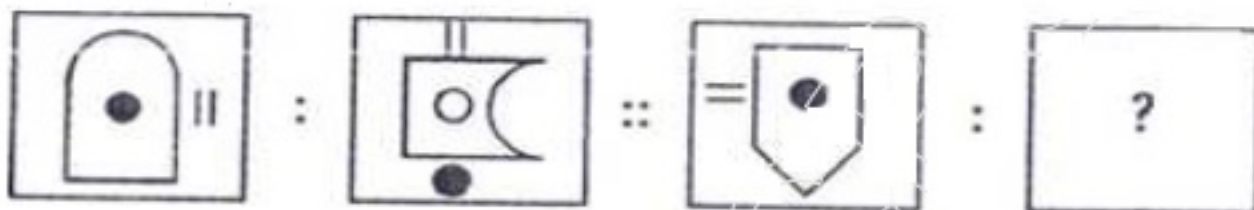


(Ans.)

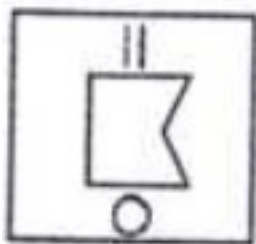
(Questions 69-72)

**Directions:** In the following questions there is some relationship between the two figure on the left of (::) the same relationship exists between the two terms on the right, of which one is missing. Find the missing one from the given alternative.

69. Question figures:



a.



b.



c.

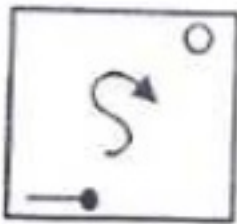


d.

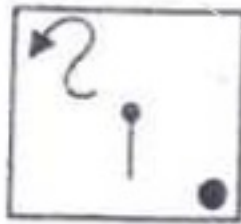


(Ans.)

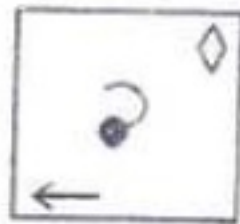
70. Question figures:



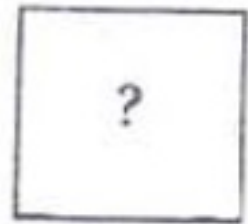
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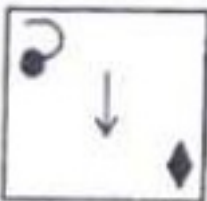


a.



(Ans.)

b.



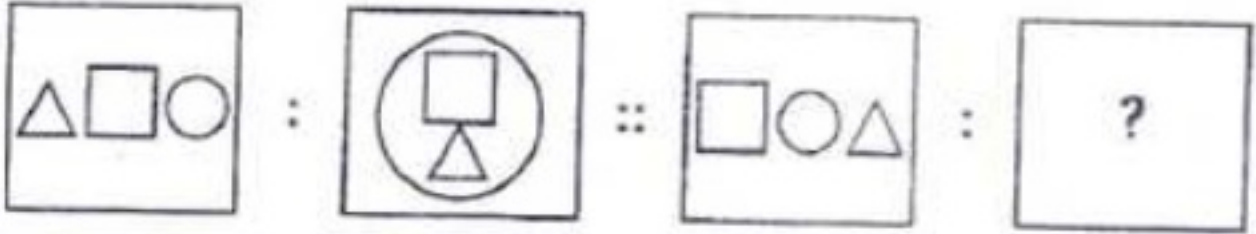
c.



d.



71. Question figures:



a.



b.



(Ans.)

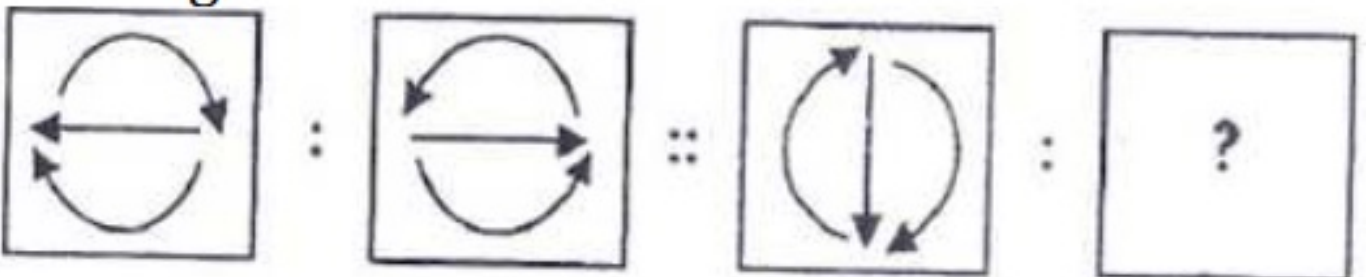
c.



d.






72. Question figures



a.





- b. 
- c.  (Ans.)
- d. 

(Question 73-76)

**Directions:** The following questions are related to paper cutting. The questions that follow contain a set of three figures X, Y and Z, showing a sequence of folding of a piece of paper. Fig. (Z) shows the manner in which the folded paper has been cut. These three figures are followed by four answer figures 1, 2, 3 and 4 (2nd set) from which you have to choose a figure which would most closely resemble the unfolded of fig. (Z).

73. Sequence of folding the paper





X



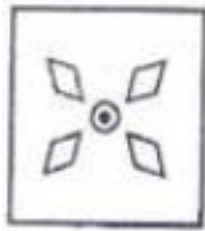
Y



Z

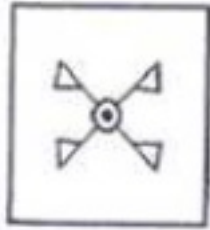
- a. 
- b. 

c.



(Ans.)

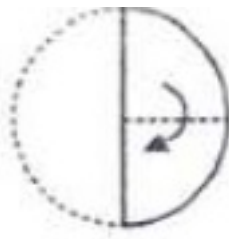
d.



74. Sequence of folding the paper



X



Y



Z

a.



b.



(Ans.)

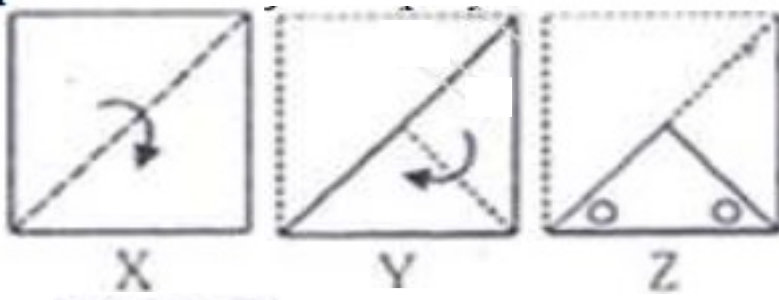
c.



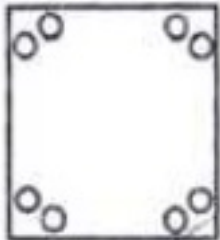
d.



75. Sequence of folding the paper

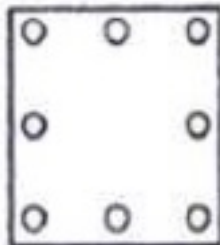


a.

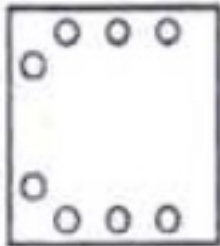


(Ans.)

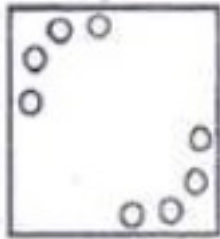
b.



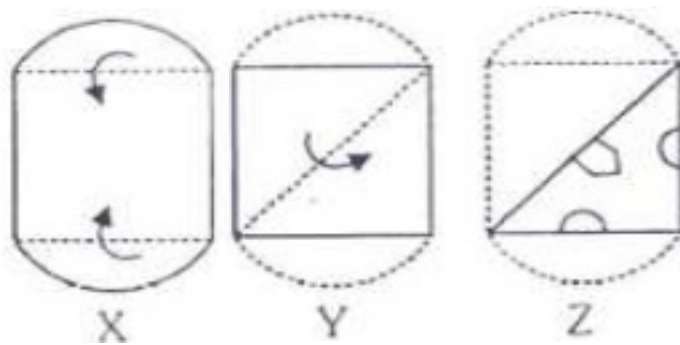
c.

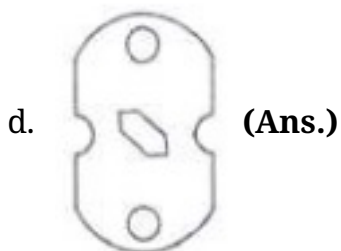
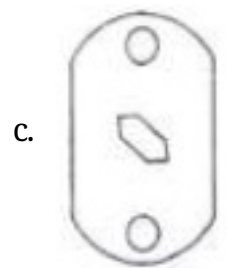
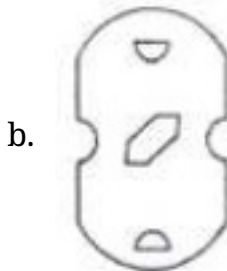
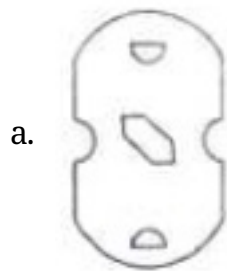


d.



76. Sequence of folding the paper





77. X, Y, Z and P are sitting around a circular table and discussing their trades.

- X, sits opposite to cook
- Y, sits right to the barber
- The washer man is on the left of the tailor
- P, sits opposite Z

What are the trades of X and Y?

- a. Tailor and Barber
- b. Barber and Cook
- c. Tailor and Cook **(Ans.)**
- d. Tailor and Washer man

78. Six persons A, B, C, D, E and F are standing in a circle. B is between F and C, A is between E and D, F is to the left of D. Who is between A and F?

- a. B
- b. C
- c. D **(Ans.)**
- d. E

79. Six students are sitting in a row. K is sitting between V and R. V is sitting next to M. M is sitting next to B who is sitting on the extreme left and Q is sitting next to R.

Who is sitting adjacent to V?

- a. R and Q
- b. B and M
- c. K and R
- d. M and K **(Ans.)**

80. If  $27^3 = 243$

$$5^4 = 80$$

Then what is the value of  $3^7$ ?

- a. 84
- b. 147 **(Ans.)**
- c. 63
- d. 23

#### **(Questions 81-84)**

**Directions:** The six faces of a cube are painted in a manner that no two adjacent faces have the same colour. The three colours used in painting are red, blue and green. The cube is then cut into 36 bigger cubes in such a manner that 32 cubes are of one size and the rest of a bigger size and each of the bigger cubes has no red side.

**Answer the following questions.**

81. How many cubes in all have a red side?

- a. 16
- b. 32 **(Ans.)**
- c. 8
- d. 20

82. How many cubes in all have only one side coloured?

- a. 20
- b. 16

c. 0

d. 8 **(Ans.)**

83. How many cubes are coloured on three sides?

a. 20

b. 16

c. 8 **(Ans.)**

d. 0

84. How many cubes are there which have two or more sides painted?

a. 36

b. 28 **(Ans.)**

c. 20

d. 32

85. In a coded language NUMBER is written as in MFNYVI, then FIGURE may be written in coded language as

a. ERHFID

b. URTVSF

c. GJTFSF

d. URTFIV **(Ans.)**

86. In a coded language SHIFT is written as UFKDV, then CONVET may be written in coded language as

a. EMXCV **(Ans.)**

b. FNYDU

c. EXCUV

d. EQUDES

87. If PET = 4

LET = 3

JEY = 2

Then what is the value of XET?

a. 1

b. 5

c. 6 **(Ans.)**

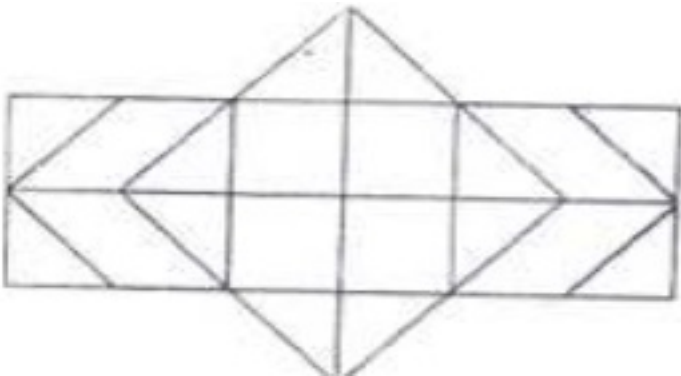
d. 8

88. In a coded language if HOME = 2541, SHOP = 8256, WORK = 9573, then code for SMOKE

will be

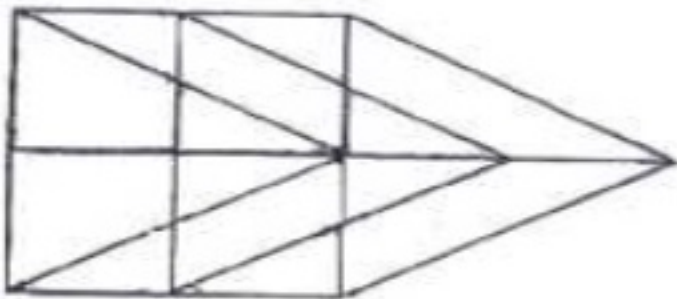
- a. 85432
- b. 84531 **(Ans.)**
- c. 83451
- d. 84351

89. What will be the number of Hexagonals in the give figure?



- a. 2
- b. 4
- c. 5 **(Ans.)**
- d. 6

90. What will be the number of Parallelogram in the given figure?



- a. 15
- b. 17 **(Ans.)**
- c. 13
- d. 16