



PRE-NURTURE DIVISION

SESSION: 2021-2022

NTSE

MENTAL ABILITY TEST (MAT)

MOCK TEST-02

Medium: English

IMPORTANT INSTRUCTIONS

Do not open this test Booklet until you are asked to do so

1. Duration of Test is 120 Minutes and Question Paper Contains 100 Questions. Total marks are 100.
2. Answers are to be given on a separate OMR sheet.
3. There are 100 questions in this test. All are compulsory.
4. Please Follow the instruction given on the OMR sheet for marking the answers.
5. Mark your answers for question 1-100 on the OMR sheet by darkening the circles.
6. If you do not know the answer to any question, do not waste time on it and pass on to the next one. Time permitting, you can come back to the questions, which you have left in the instance and attempt them.
7. Since the time allotted for this question paper is very limited you should make the best use of it by not spending too much time on any one question.
8. Rough work can be done anywhere in the booklet but not on the OMR sheet/loose paper.
9. Every correct answer will be awarded one mark there is no negative marking for wrong answer.
10. Use of Pencil and whitener is strictly prohibited.

MENTAL ABILITY

Direction (Q.1 to Q.2) : In each of the following questions, some of the letters are missing in the given series with one of the alternatives among the four groups of letters given under it. Find the right alternative.

- Q.1 BD, HJ, NP, ?, ZB
(1) QS (2) TV (3) YC (4) TU
- Q.2 FOX, IQV, LST, OUR, ?
(1) RPW (2) RWP (3) QVS (4) SXU

Direction (Q.3 to Q.5) : In each of the following questions, one term is missing shown by question mark (?). This term is one of the given alternatives among the four numbers given under it. Find the right alternative.

- Q.3 65, 48, 64, 49, 63, ?
(1) 53 (2) 52 (3) 51 (4) 50
- Q.4 16, 8, 12, ?, 105.
(1) 6 (2) 30 (3) 24 (4) 35
- Q.5 748, 737, 716, 685, 644, ?
(1) 634 (2) 643 (3) 503 (4) 593
- Q.6 The number/letters are arranged based on some pattern or principle. Choose the correct answer for the term marked by the symbol (?).
6, 9, 18, 21, 30, ?
(1) 38 (2) 33 (3) 36 (4) 39
- Q.7 Find the odd number out in the series
64, 71, 80, 91, 104, 119, 135, 155.
(1) 71 (2) 80 (3) 119 (4) 135
- Q.8 Complete the letter series :
SHINE, VEMJJ, XBQFO, ?.
(1) ZXTAS (2) AYUBT
(3) BZVCU (4) WTUAV
- Q.9 Choose the correct answer for the term marked by the symbol (?).
P3, ?, J9, G12, D15
(1) K6 (2) M6 (3) M8 (4) L8

Direction (Q.10 and Q.11) : Following questions are based on number series. One or two term is missing in each series and indicated by question mark (?). Find the missing term out of the four alternatives given below.

- Q.10 2, 10, 30, 68, 130, ?
(1) 240 (2) 196 (3) 222 (4) 226
- Q.11 6, 2, 12, 6, 20, 12, 30, 20, ?, ?
(1) 49, 36 (2) 42, 30 (3) 36, 42 (4) 48, 54

Direction (Q.12 to Q.14) : Following questions are based on letter series. In each question some letters are missing shown by (–), The missing letter are given in a proper sequence as one of the four alternatives given under each question. Find out the correct alternative.

- Q.12 – – B – TM – BA – MO – A –
(1) M T O B T A M (2) M O A O T B T
(3) O A B T M O A (4) T M O A B T M
- Q.13 – TP – N – P – – – PC
(1) C N P T N T (2) N C P T C N
(3) P N T C P T (4) N C T C N T
- Q.14 K – C – B – KB –
(1) B K C C (2) C B K C
(3) B C K B (4) B C K C

Direction (Q.15 to Q.20) : In each of the following questions there is a number series with one term missing shown by “?”. The term is given as one of the alternatives among four options given below it. Find the term.

- Q.15 4, 16, 36, 64, ?, 144
(1) 81 (2) 90 (3) 100 (4) 121
- Q.16 15, 150, 1800, ?, 15
(1) 180 (2) 160 (3) 140 (4) 120
- Q.17 100, 121, 144, ?, 196, 225
(1) 149 (2) 179 (3) 189 (4) 169

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- Q.18 3, 12, 27, 49, 79, ?
(1) 108 (2) 116 (3) 112 (4) 118
- Q.19 11, 17, 26, 38, ?
(1) 42 (2) 53 (3) 47 (4) 58
- Q.20 13, 41, 126, ?, 1151
(1) 382 (2) 582 (3) 882 (4) 1082

Direction (Q.21 to Q.25) : Find the odd one out.

- Q.21 (1) Mars (2) Mercury
(3) Jupiter (4) Challenger
- Q.22 (1) Fluorine (2) Bromine
(3) Chromium (4) Chlorine
- Q.23 (1) QSU (2) AFK (3) DIN (4) LQV
- Q.24 (1) 117 (2) 97 (3) 135 (4) 153
- Q.25 (1) PONM (2) TSRQ
(3) HGFE (4) HGFL

Direction (Q.26 to Q.30) : In each of the following question here are four terms. The terms right to the symbol :: have same relationship as the two terms to the left of symbol ::. Out of the four terms one term is missing, which is shown by (?) and which is one of the below. Find out the correct alternative.

- Q.26 Newspaper : News :: Book : ?
(1) Writer (2) Chapter
(3) Knowledge (4) Page
- Q.27 BHC : FLG :: JPK : ?
(1) MSP (2) NTO (3) EKF (4) SYT
- Q.28 $\frac{D}{W} : 92 :: \frac{H}{S} : ?$
(1) 26 (2) 11 (3) 121 (4) 152
- Q.29 23 : 8 :: 25 : ?
(1) 32 (2) 9 (3) 64 (4) 22
- Q.30 531 : 99 :: ? : ?
(1) 451 : 55 (2) 321 : 24
(3) 642 : 66 (4) None of these

- Q.31 How many odd numbers are there in the sequence each of which is immediately followed by an odd number ?
5 1 4 7 3 9 8 5 7 2 6 3 1 5 8 6 3 8 2 2 4 6 4 9 6
(1) 2 (2) 5 (3) 6 (4) 7
- Q.32 In the given number series, how many 6 are there which are preceded by odd number and followed by even number ?
3 6 2 5 6 3 2 6 2 7 6 4 6 5 8 6 7 6 4 2 6 8
(1) 2 (2) 4 (3) 3 (4) 1
- Q.33 What was the day before yesterday if Thursday was the day after tomorrow ?
(1) Saturday (2) Sunday
(3) Monday (4) Friday
- Q.34 14th January 2014 is Saturday, then which day will be on 15th August 2014 ?
(1) Tuesday (2) Thursday
(3) Friday (4) Saturday
- Q.35 Manish's number is 14th from right side in queue of 40 students. Then from the left side at which number will his place be ?
(1) 27th (2) 28th (3) 29th (4) 30th
- Q.36 6 4 3 1 4 5 3 1 2 1 4 3 1 7 4 3 1 2 9 3 1
In the above series, how many 3's are there such that 1 comes after and 4 comes before?
(1) 5 (2) 4 (3) 3 (4) 2
- Q.37 How many '8's, are there followed by an even number and preceded by an odd number in the given number sequence ?
5 8 4 7 8 3 2 8 5 4 8 2 9 8 6 8 5 4 8 7 8 4 2 8
6 4 5 8 4 9
(1) 2 (2) 3 (3) 4 (4) 5
- Q.38 In a row of boys, Vishal is seventh from the left and Kamal is eleventh from the right. When they exchange their places, Vishal is thirteenth from the left. What is the new position of Kamal from the right ?
(1) 16th (2) 17th (3) 18th (4) 19th

Q.39 In a row of children Teena is 5th from the left & Meena is 6th from the right. If they interchange their places then Teena becomes 13th from the left. Now what place will be occupied by Meena from the right ?

- (1) 4 (2) 14 (3) 15 (4) 18

Q.40 If CUP = 40, then KITE = _____

- (1) 10 (2) 20 (3) 30 (4) 45

Q.41 If TNELLECXE written instead of EXCELLENT then what is written for MARKET ?

- (1) TERKAM (2) TEMARK
(3) TEKRAM (4) TEKRMA

Q.42 If PQRS is written as KJIH, then EFGH is written as _____

- (1) VUTS (2) STUV (3) SUTV (4) WVUT

Q.43 'peslligen' means 'basketball court'
'ligenstrisi' means 'court room'
'oltaganti' means 'placement test'

Which word could mean "guest room" ?

- (1) peslstrisi (2) vosefstrisi
(3) gantipesl (4) oltastrisi

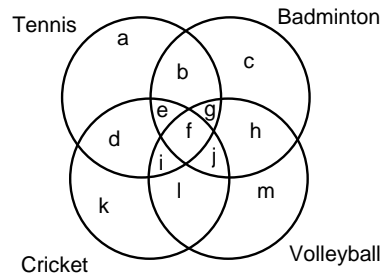
Q.44 Abhijot walks 6 km to the west then he turns his right and moves 8 km then he turns to his left and moves 9 km then turns to right and moves 12 km. Now in which direction is he from his starting point and how far ?

- (1) 15 km, NE (2) 35 km, NE
(3) 25 km, NW (4) 45 km, SE

Q.45 Ram travels 8 km to south, then moves to right and travels 6 km and at the end he again moves right and travels 8 km. Then the distance of Ram from initial point is

- (1) 6 km (2) 8 km (3) 10 km (4) 14 km

Direction (Q.46 to Q.60) : With the help of the given diagram, answer the following questions making the right choice from the given alternatives. Indicate the answer as per "Instructions".



Q.46 Which letter represents the set of persons who play all the games ?

- (1) (e) (2) (g) (3) (f) (4) (h)

Q.47 Which letter represents the set of persons who play tennis and badminton only ?

- (1) (a) (2) (b) (3) (c) (4) (e)

Q.48 Which letter represents the set of persons who play only cricket ?

- (1) (d) (2) (h) (3) (k) (4) (l)

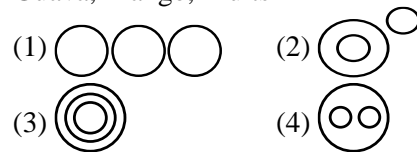
Q.49 Which letter represents the set of persons who play all the other three games except cricket ?

- (1) (e) (2) (b) (3) (j) (4) (g)

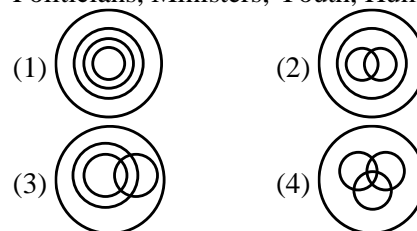
Q.50 Which letter represents the set of persons who play tennis, badminton and cricket but not volleyball ?

- (1) (a) (2) (b) (3) (c) (4) (e)

Q.51 Identify the diagram that best represents the relationship among classes given below :
Guava, Mango, Fruits

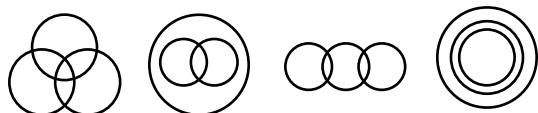


Q.52 Indicate the appropriate diagram to show the relationship among these words given below.
Politicians, Ministers, Youth, Human beings



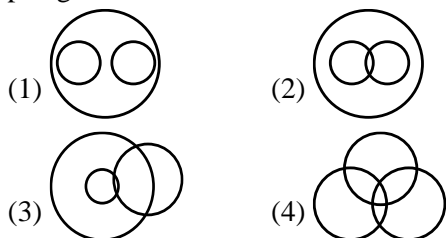
Q.53 Given below are four diagrams represented as A, B, C and D from the following diagrams which diagrams represent a correct relationship among these words given below?

Women, Teacher, Doctor

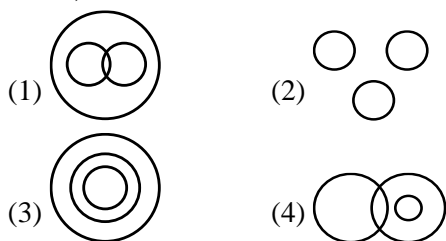


- A B C D
(1) A (2) B (3) C (4) D

Q.54 Choose the diagram that illustrates the relationship of females, mothers & postgraduates.



Q.55 Which of the following Venn diagrams correctly represents the relationship among Delhi, India and Asia ?



Q.56 If '<' means '-', '>' means '+', '=' means '×' and '@' means '÷' then what will be the value of $7 = 4 < 8 = 3 > 39 @ 3$?

- (1) 10 (2) 17 (3) 39 (4) 52

Q.57 If (+) stands for (×), (-) stand for (÷), (×) stands for (-) and (÷) stands for (+), then value of $[26 + 72 - 4 \times 5 \div 2]$ is

- (1) 108 (2) 465 (3) 471 (4) 488

Q.58 If '<' means '-', '>' means '+', '=' means '×' and '\$' means '÷', then what will be the value of $27 > 81 \$ 9 < 6$?

- (1) 6 (2) 36 (3) 30 (4) 54

Q.59 If $9 + 3 = 6273$, $8 + 2 = 6164$ then $10 + 5 =$
(1) 5250 (2) 5515 (3) 5502 (4) 5205

Q.60 To get correct equation choose, which set of signs from the given alternatives to be substituted sequentially places of (*).

$$72 * 36 * 18 * 3 * 12 * 36$$

- (1) -, ÷, ×, =, + (2) ÷, ×, +, =, -
(3) =, +, ÷, ×, - (4) -, ×, ÷, =, +

Q.61 A is the son of B. C is wife of A. E is daughter of C. How is E related to B ?

- (1) Granddaughter (2) Grand son
(3) Son (4) Daughter

Q.62 Sailesh introduces Mahipal as the son of the only brother of his father's wife. How is Mahipal related of Sailesh ?

- (1) Cousin (2) Son
(3) Maternal uncle (4) Son-in-law

Direction (Q.63 to Q.67) : There are six persons in a family A, B, C, D, E and F.

- (i) C is the sister of F.
(ii) A is the brother of husband of E.
(iii) D is the father of A and D is the grandfather of F.
(iv) There are two father, three brothers and a mother in the family. On the basis of above details, choose the correct alternative.

Q.63 What is the relationship between E and F ?

- (1) Daughter (2) Son
(3) Husband (4) Grandson

Q.64 Who is the mother ?

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

Q.65 How many male members are there in this family ?

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

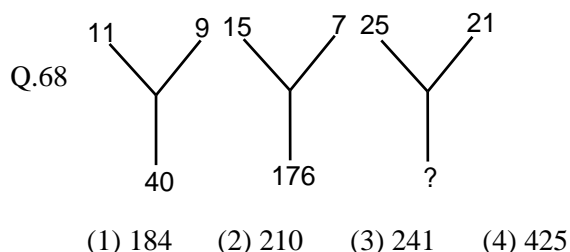
Q.66 Who is the husband of E ?

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

Q.67 How many persons are there in the category of brothers ?

- (1) 1 (2) 5 (3) 4 (4) 3

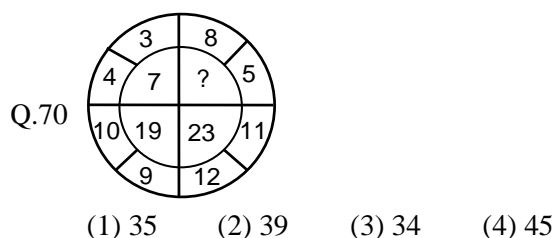
Direction (Q.68 to Q.70) : In each of the questions, the numbers are arranged in a certain order. In one place, a question mark is given. Find out which one of the answers will replace the question mark.



Q.69

9	17	16
5	4	?
5	4	8
9	17	8

(1) 1 (2) 8 (3) 4 (4) 5



Direction (Q.71 and Q.72) : Take the given statements as true and decide which of the conclusions logically follow from the statements :

- Q.71 **Statements :**
- All horses are dogs
 - All dogs are cats
- Conclusions :**
- All horses are cats
 - All cats are horses
- Only conclusions I follows
 - Only conclusions II follows
 - Both conclusions I and II follow
 - Neither conclusion I nor II follow

- Q.72 **Statements :**
- Some apples are mangoes
 - All mangoes are bananas
- Conclusions :**
- Some bananas are apples
 - All mangoes are apples
 - Some bananas are mangoes
 - All apples are bananas
- Only conclusion II follow
 - Conclusions II and IV follow
 - Conclusions I and III follow
 - Conclusions I, II and III follow

Direction (Q.73 to Q.75) : In each of the questions below are given two statements and two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows the two given statements.

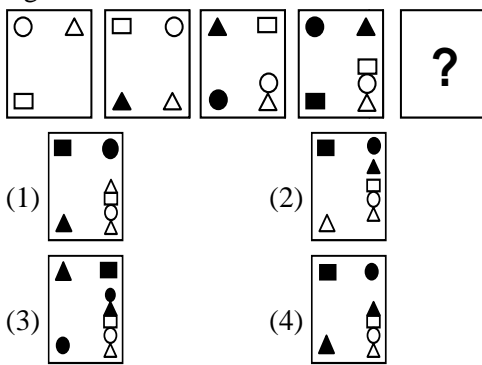
- Q.73 **Statements :**
- All rats are cats
 - All cats are dogs
- Conclusions :**
- All rats are dogs
 - Some cats are rats
- Only conclusion I is true
 - Only conclusion II is true
 - Both conclusions I and II are true
 - Neither conclusion I nor conclusion II is true

- Q.74 **Statements :**
- Some chalks are chairs
 - Some chairs are tables
- Conclusions :**
- Some chalks are tables
 - Some tables are chalks
- Only conclusion I is true
 - Only conclusion II is true
 - Both conclusions I and II are true
 - Neither conclusion I nor conclusion II is true

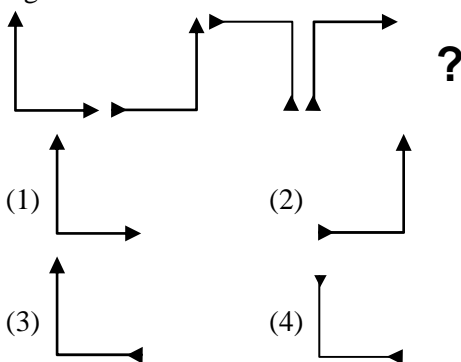
- Q.75 **Statements :**
- Without rains the crops will not be good
 - The crops were good
- Conclusions :**
- There were rains
 - Crops were good due to good fertilizers
- Only conclusion I is true
 - Only conclusion II is true
 - Both conclusions I and II are true
 - Neither conclusion I nor conclusion II is true

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Q.76 The next figure in the following sequence of figures is

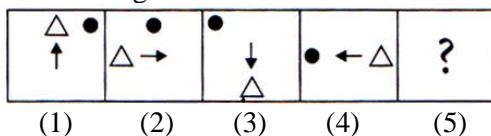


Q.77 The next figure in the following sequence of figure is

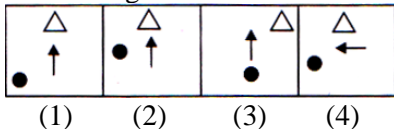


Direction (Q.78 to Q.80) : In the following Questions problem figures are given at the left hand side consisting four figures in a definite series and the place for fifth figure is vacant which has been shown by question mark (?). Four answer figures are given against each problem figure. Find out the correct answer figure.

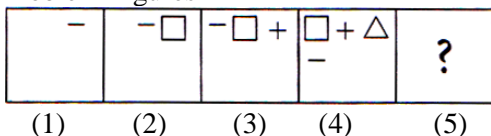
Q.78 Problem Figures



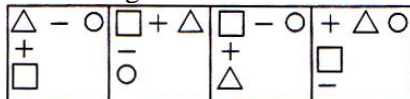
Answer Figures



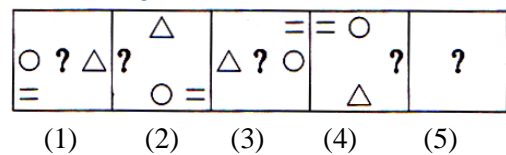
Q.79 Problem Figures



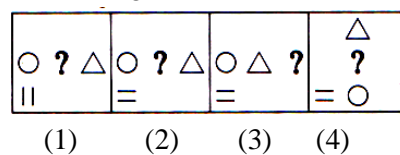
Answer Figures



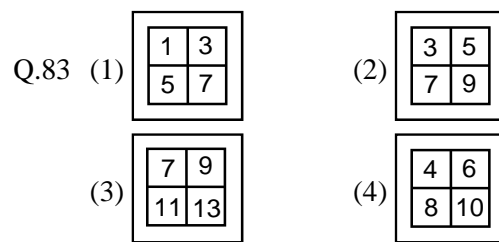
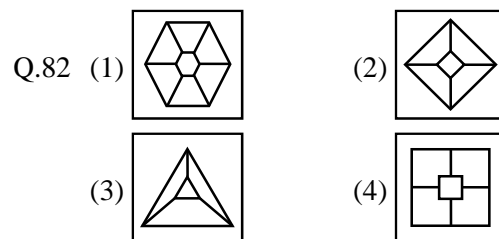
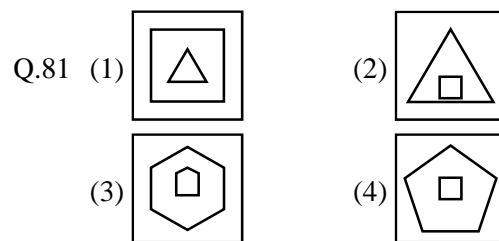
(1) (2) (3) (4)
Q.80 Problem Figures



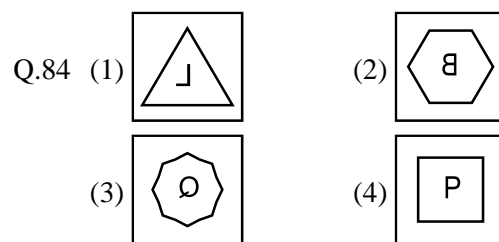
Answer Figures

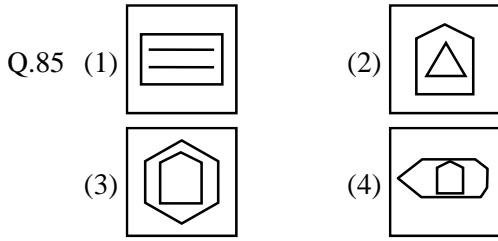


Direction (Q.81 to 83) : Out of the four figures (1), (2), (3), (4) given in each question, three are similar in a certain way. Choose the figure which is different from the other figures.

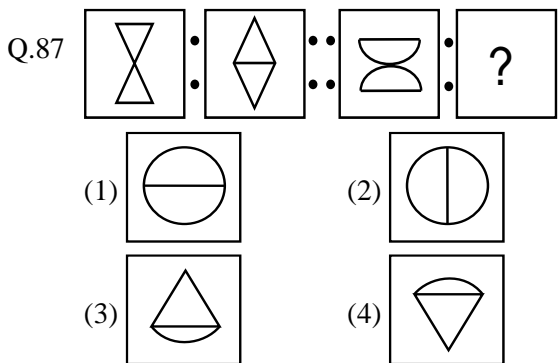
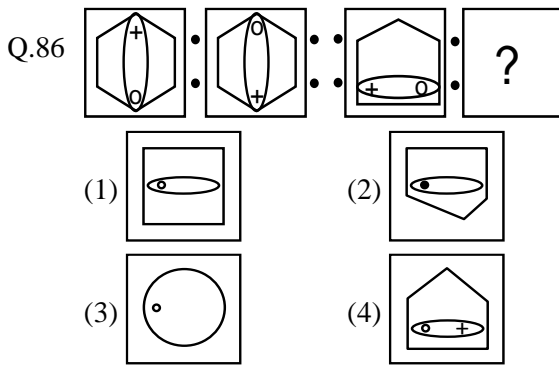


Direction (Q.84 and Q.85) : Four figures are given in each question. One of the figure differences from the rest. Find the figure which is differ from others.

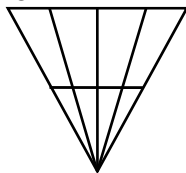




Direction (Q.86 & Q.87) : The first two figures bear a definite relation with each other. Bearing that relation in mind up the fourth figure from the answer figure from the answer figure.

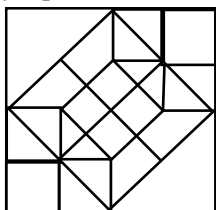


Q.88 How many triangles are there in the following figure ?



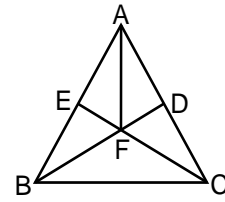
- (1) 20 (2) 18 (3) 22 (4) 17

Q.89 How many squares are in the given figure ?



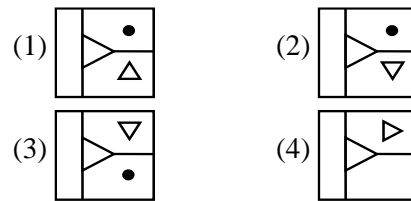
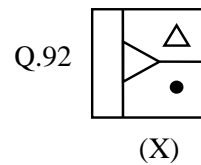
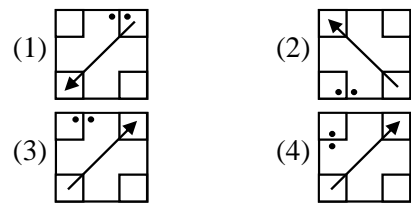
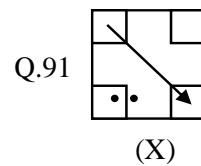
(1) 13 (2) 15 (3) 17 (4) 19

Q.90 How many triangles are present in the following figure ?

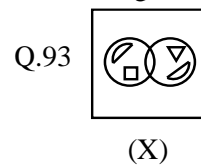


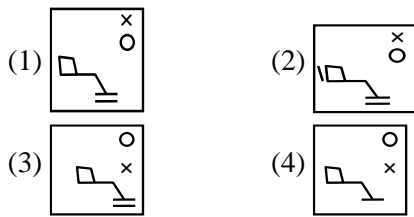
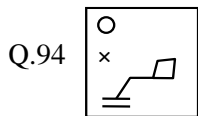
- (1) 14 (2) 10
(3) 12 (4) 09

Direction (Q.91 and Q.92) : Find the water image of (X) from amongst the given alternatives.



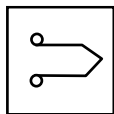
Direction (Q.93 & Q.94) : Find the mirror image of the given figure (X).



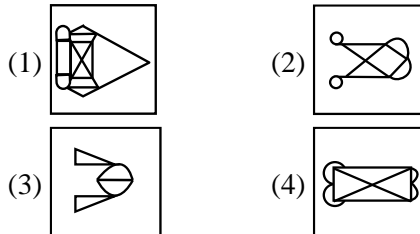


Q.95 A figure is embedded in one of the answer figure. Find the correct one in which it is embedded.

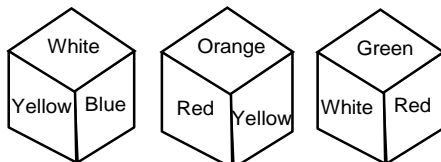
Question Figure



Answer Figure



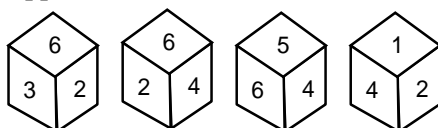
Q.96 Observe the colours and answer the following.



Which coloured surface is opposite to yellow colour ?

- (1) Green (2) Orange
(3) Red (4) White

Q.97 The four different positions of the dice are given below. Which number is on the face opposite to 6 ?

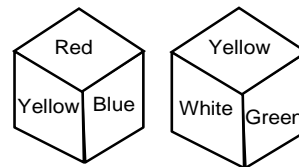


- (1) 1 (2) 2
(3) 3 (4) 4

Q.98 All faces of a solid cube of edge 8 cm are coloured. It is divided equally in the cubes of edge 2 cm. How many cubes will have all faces coloured ?

- (1) 1 (2) 0
(3) 8 (4) 4

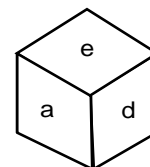
Q.99 Given below a dice whose six sides have been coloured with different colours.



Study the given situation and find out which colour will be opposite to blue colour

- (1) White
(2) Red
(3) Yellow
(4) Green

Q.100 In a dice a, b, c and d are written on the adjacent faces, in a clockwise order, e and f at the top and bottom. When c is at the top, what will be at the bottom ?



- (1) a
(2) b
(3) c
(4) d

Answer Key

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	2	2	4	2	4	2	4	2	2	3	2	2	4	1	3	1	4	4	2	1
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	4	3	1	2	4	3	2	4	1	3	3	3	2	1	1	3	3	2	2	4
Que.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	3	1	2	3	1	3	2	3	4	4	4	3	3	3	3	2	2	3	3	3
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans.	1	1	2	1	4	3	4	1	3	2	1	3	3	4	1	4	1	1	4	2
Que.	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ans.	2	4	4	4	3	4	1	1	3	3	3	2	2	3	2	1	1	2	1	1