



NTSE (STAGE-II) TEST SERIES

MENTAL ABILITY TEST (MAT)

TEST #3

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. Duration of Test is **120 Minutes** and Questions 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 instructions given on the OMR sheet for marking the answers.
5. Mark your answers for questions 1–100 on the OMR sheet by darkening the circles.
6. Every correct answer will be awarded one mark. **THERE IS NO NEGATIVE MARKING.**
7. 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 first instance and attempt them.
8. 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.
9. Rough work can be done anywhere in the booklet but not on the OMR sheet/loose paper.
10. Please return the OMR sheet to the invigilator after the test.

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Directions : (Q.1 to Q.4) Study the following information carefully to answer these questions :

A number sorting machine when given an input of numbers, rearranges them in a particular manner step-by-step as indicated below till all the numbers are arranged. Given below is an illustration of this arrangement.

Input : 39 121 48 18 76 112 14 45 63 96

Step I : 14 39 121 48 18 76 112 45 63 96

Step II : 14 39 48 18 76 112 45 63 96 121

Step III : 14 18 39 48 76 112 45 63 96 121

Step IV : 14 18 39 48 76 45 63 96 112 121

Step V : 14 18 39 45 48 76 63 96 112 121

Step VI : 14 18 39 45 48 63 76 96 112 121

And Step VI is the last step for this input.

1. What will be Step III for the following input ?

Input : 68 182 39 93 129 46 21 58

(1) 21 39 68 129 93 46 58 182

(2) 21 39 68 93 129 46 58 182

(3) 21 68 39 93 129 46 58 182

(4) None of these

2. Given below is the fifth step of an input. What will be the third step ?

Step V : 17 32 43 82 69 93 49 56 99 106

(1) 17 32 82 43 69 93 49 56 99 106

(2) 17 32 82 69 43 93 49 56 99 106

(3) 17 32 82 69 93 43 49 56 99 106

(4) Cannot be determined

3. What will be the last step for the following input ?

Input : 138 63 49 93 89 122 32 71

(1) 32 49 63 71 89 93 122 138

(2) 32 49 71 63 89 93 122 138

(3) 32 49 63 71 93 89 122 138

(4) None of these

4. How many steps will be required for getting the final output for the following input ?

Input : 101 85 66 49 73 39 142 25 115 74

(1) Five

(2) Six

(3) Seven

(4) Eight

5. An electrical circuit for a set of 4 lights depends on a system of switches A, B, C and D. When these switches work they have the following effect on the lights: They each change the state of two lights (i.e. on becomes off and off becomes on). The lights that each switch controls are as follows.

A	B	C	D
1 and 2	2 and 4	1 and 3	3 and 4

= ON

= OFF

In figure 1 shown below, switches BDAC are activated in turn, resulting in figure 2. One switch did not work and had no effect at all.

Which was that switch?

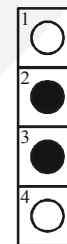


Figure 1



Figure 2

(1) A

(2) B

(3) C

(4) D

6. A is 3 years younger than C but one year older than D. D is one year older than B but 4 years younger than C. C is 15 years old. What is the age of B in years ?

(1) 10

(2) 11

(3) 12

(4) 13

7. David gets on the elevator at the 11th floor of a building and rides up at the rate of 57 floors per minute. At the same time, Albert gets on an elevator at the 51st floor of the same building and rides down at the rate of 63 floors per minute. If they continue travelling at these rates, then at which floor will their paths cross?

(1) 19

(2) 28

(3) 30

(4) 37

8. One night, three naughty boys stole a basketful of apples from the garden, hid the loot and went to sleep. Before retiring they did some quick counting and found that the fruits were less than a hundred in number. During the night one boy awoke, counted the apples and found that he could divide the apples into three equal parts if he first took one for himself. He then took one apple, ate it up and took $\frac{1}{3}$ of the rest, hid them separately and went back to sleep. Shortly thereafter, another boy awoke, counted the apples and he again found that if he took one for himself the loot could be divided into three equal parts. He ate up one apple, bagged $\frac{1}{3}$ of the remainder, hid them separately and went back to sleep. The third boy also awoke after sometime, did the same and went back to sleep. In the morning, when all woke up, and counted apples, they found that the remaining apples again totaled 1 more than could be divided into three equal parts. How many apples did the boy steal ?
- (1) 67 (2) 79
(3) 85 (4) None of these
9. You are visiting a place for the first time and are travelling in a bus. Suddenly you realise that the driver is taking the bus to a lonely place with no right intentions. You would
- (1) with the help of some other passengers, try to baffle the driver and take over the bus
(2) sit and wait to face the repercussions
(3) jump out of the running bus
(4) console the worried passengers
10. 5 days ago Shweta lost her phone. 2 days after loosing the phone she lodged a complaint with police. 6 days after lodging the complaint she bought a new phone. 4 days after buying a new phone i.e. on a Thursday she found her old phone. On which day did she loose her phone ?
- (1) Sunday (2) Monday
(3) Saturday (4) Friday
11. Which year subsequent to 1996 had the same calendar as that of the year 1996 ?
- (1) 2001 (2) 1998
(3) 1999 (4) 2024
12. The famous company, ARROW was established on 23 June in 1851. It is known that the year 1851 started with Wednesday. On which day, the company was established ?
- (1) Sunday (2) Monday
(3) Tuesday (4) Friday
13. Nisha was born on 30 January. Reshma is older than Nisha by 21 days. During that year, the Republic day was celebrated on Wednesday. On which day was Reshma born ?
- (1) Sunday (2) Monday
(3) Tuesday (4) Friday
14. Vinay met Rohit at the Taj Mahal in Agra on 25 December 1987, which was Friday. Vinay reminded Rohit that their first meeting was also at the Taj Mahal in Agra on 6 January 1984. On which day did they both meet on the first occasion ?
- (1) Sunday (2) Thursday
(3) Tuesday (4) Friday
15. My friend and I went for dinner at Hotel Blue Fox on April 10, which was Sunday. I promised to take her out after 3 months, but only on Sunday. On which day out of the following dates could I take her out ?
- (1) 16 July (2) 19 July
(3) 10 July (4) 30 July
- Directions (Q.16 to Q.20) :** Read the following information carefully and give the answer of following questions :
- A scientist is trying to prepare a medicine using four ingredients. He can choose from the stable chemicals A, B and C and the unstable chemicals W, X, Y and Z. In order for the formula not to explode, there must be two stable chemicals in it. Also, certain chemicals cannot be mixed because of their reaction together.
- (i) Chemical B cannot be mixed with chemical W
(ii) Chemical C cannot be mixed with chemical Y
(iii) Chemical Y cannot be mixed with chemical Z

16. If Y is the most important chemical and must be used in the formula, which other ingredients must be used?

- (1) A, B and W (2) A, B and X
 (3) A, B and Z (4) A, C and X

17. If chemical B is rejected because of its possible side effects but it is decided to use chemical Z, which is a possible combination of the ingredients in the formula

- (1) A, W, X and Z (2) A, X, Y and Z
 (3) A, W, Y and Z (4) A, C, W and Z

18. Which of the following combinations of chemicals is impossible?

- I. Using chemical Y and W together.
 II. Using chemicals B and C together.
 III. Using chemicals W, X and Z together.

- (1) I only (2) II only
 (3) I and III only (4) I and II only

19. Which of the following can never be true?

- I. If chemical C is used, chemical Z is added.
 II. If chemical B is not used, chemical Y is added
 III. If chemical C is used, chemical W is added

- (1) I, II and III (2) II only
 (3) III only (4) I and II only

20. Which of the following must be true?

- I. If chemical C is used, chemical W must be added.
 II. If chemical Y is used, chemical B must be added.
 III. If chemical C is not used, chemical W can't be added

- (1) I and II only (2) I and III only
 (3) II and III only (4) II only

Directions (Q.21 & Q.22) : Landmarks A, B, C, D, E, F, G and H are as follows :

F is 2 km to the East of C. B is 2 km to the West of D. A is 2 km to the South of F. G is 2 km to the West of A. E is 1 km to the North of D and 1 km to the East of A. H is 1 km to the East of G.

21. Which of the following four landmarks are in a straight line ?

- (1) CGED (2) FAED
 (3) GHAE (4) DAHG

22. How far is G from C and in which direction ?

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

23. Five bells begin to toll together and toll respectively at intervals of 6, 5, 7, 10 and 12 seconds. How many times will they toll together in one hour excluding the one at the start ?

- (1) 7 times (2) 8 times
 (3) 9 times (4) 11 times

Directions (Q.24 to Q.28) : Read the following information to answer the given questions:

A bag contains coins of four different denominations, viz. 1 rupee, 50-paise, 25-paise and 10-paise. There are as many 50-paise coins as the value of 25-paise coins in rupees. The value of 1-rupee coins is 5 times the value of 50-paise coins. The ratio of the number of 10-paise coins to that of 1-rupee coins is 4 : 3, while the total number of coins in the bag is 325.

24. How many 10-paise coins are there?

- (1) 25 (2) 50 (3) 75 (4) 100

25. What is the value of 50-paise coins ?

- (1) Rs. 10 (2) Rs. 15
 (3) Rs. 20 (4) Rs. 30

26. What is the ratio of 50-paise coins to 25-paise coins?

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

27. How many 1-rupee coins are there?

- (1) 25 (2) 50 (3) 75 (4) 100

28. What is the total value of coins in the bag?

- (1) Rs. 130 (2) Rs. 140
 (3) Rs. 150 (4) Rs. 160

29. A × B means A is the sister of B, A ÷ B means A is the daughter of B, A – B means A is the son of B. On the basis of this information you have to tell, how is P related to S in the relationship P – Q × R ÷ S.

- (1) Brother (2) Son
 (3) Grandson (4) Daughter's son

30. If A + B means A is the brother of B, A – B means A is the father of B, A × B means A is the wife of B, then P × R – S + T means
- (1) P is the mother of T.
 - (2) T is the sister of P.
 - (3) R is the grandfather of T.
 - (4) T and R are sisters.

Directions (Q.31 to Q.35) : Find the missing term in the given number series :

31. 132, 138, 150, 156, 168, ?
 (1) 180 (2) 183 (3) 185 (4) 188
32. 3, 4, 10, 33, 136, ?
 (1) 240 (2) 430 (3) 685 (4) 820
33. 9, 25, 46, 73, 107, ?
 (1) 133 (2) 149 (3) 148 (4) 145
34. 23, 27, 43, 79, 143, ?
 (1) 242 (2) 241 (3) 240 (4) 243
35. 901, 785, 577, 325, 101, ?
 (1) 24 (2) 48 (3) 63 (4) 1

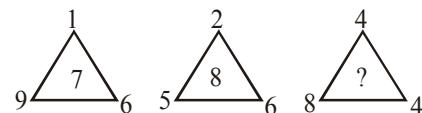
Directions : (Q.36 to Q.40) In each of the following questions, there are two terms to the left of the sign :: which are related in some way. Obtain the same relationship between the term to the right of the sign :: from one of the four alternatives given under it.

36. 35 : 91 :: 189 : ?
 (1) 250 (2) 289 (3) 315 (4) 341
37. 5 : 35 :: 7 : ?
 (1) 11 (2) 56 (3) 77 (4) 105
38. India : Hockey :: Canada : ?
 (1) Ice Hockey (2) Bull's Fight
 (3) Kabbadi (4) Polo
39. Train : Yard :: Aeroplane : ?
 (1) Runway (2) Hangar
 (3) Tin-Shed (4) Taj Mahal
40. TEN : Thirty-Nine :: NINE : ?
 (1) Fifty-Six (2) Sixty
 (3) Eighty-One (4) Ninty-Nine

Directions : (Q.41 to Q.43) The capital letters in each of the following words are coded and written in small letters on the right side of each word. But these letters are not in order. Find out the codes for letters and answer the questions.

Column-I	Column-II
TRAIN	p b r s n
CRANE	r m n d p
DEAR	r c p d
RICE	b p m d

41. How would the word **EAR** be coded ?
 (1) r d m (2) d r p
 (3) p r s (4) d r n
42. Which is the code for the word **NEAT** ?
 (1) n d r s (2) n d r m
 (3) m d r s (4) n r d p
43. Which is the code for the word **TREAD** ?
 (1) s p d r m (2) s p r d n
 (3) m s p r c (4) s p d r c
44. Out of a total of 120 musicians in a club, 5% can play all the three instruments – guitar, violin and flute. It so happens that the number of musicians who can play any two and only two of the above instruments is 30. The number of musicians who can play the guitar alone is 40. What is the total number of those who can play violin alone or flute alone ?
 (1) 30 (2) 38 (3) 44 (4) 45
45. Find the missing character in the following figures –



- (1) 15 (2) 13 (3) 11 (4) 16
46. If any two letters in the word **PRISON** have as many letters between them in the word as there are in the English alphabet, they form an alpha-pair. How many such alpha-pairs are there in the word **PRISON** ?
 (1) 4 (2) 1 (3) 2 (4) 3

47. Find the missing number in the given figure –

4	2	8	7		1	0	8	8
6	3	6	6		7	1	4	2
5	1	5	3		8	7	2	9
3	2	4	8		3	0	6	2
2	1	8	9		4	1	6	4
7	4	9	7		6	3	?	5

- (1) 3 (2) 0 (3) 2 (4) 6

48. Find the missing number in the given figure –

9	8	4
<div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 20px; margin: 0 auto;">2</div>		
2	6	?

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

Directions (Q.49 & Q.50) : Read the following information to the answer the given questions :

A, B, C and D are to be seated in a row. But C and D cannot be together. Also, B cannot be at the third place.

49. Which of the following must be false ?

- (1) A is at the first place
 (2) A is at the second place
 (3) A is at the third place
 (4) A is at the fourth place

50. If A is not at the third place, then C has which of the following options ?

- (1) The first place only
 (2) The third place only
 (3) The first and third place only
 (4) Any of the places

51. Number of letters skipped in between adjacent letters in the series decreases by two. Which of the following series observes this rule?

- (1) EPVAF (2) GPWBE
 (3) UCJOP (4) XFMQU

52. You are the manager of the department. You get to know that one of the subordinates is having a problem with his family, since his father is supposed to undergo bypass surgery.

But at the same time the subordinate is very important for the current project which you have undertaken. The subordinate wants two-weeks' leave. What would you do ?

- (1) Give him your support by assuring him that his duty towards his father is more important
 (2) Not empathies with the employee's situation and ask him to stay
 (3) Get an extension for the project to be submitted as the employee is very efficient and you can't trust anyone else
 (4) Transfer the work to some other employee of similar calibre

Directions (Q.53 to Q.55) : In each of the following questions, two statements are given followed by three or four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

53. Statements :

Some clothes are marbles.
 Some marbles are bags.

Conclusions :

- I. No cloth is a bag.
 II. All marbles are bags.
 III. Some bags are clothes.
 IV. No marbles is a cloth.

- (1) Only either I or IV follows
 (2) Only either I or II follows
 (3) None follows
 (4) Only either I or III follows

54. Statements :

All shares are debentures.
 No debenture is equity.

Conclusions :

- I. No equity is a share.
 II. Some debentures are shares.
 III. No share is equity.

- (1) Only I follows (2) Only II follows
 (3) Only III follows (4) All follows

55. Statements :

No box is a toy.

All Toys are blocks.

Conclusions :

I. Some blocks are toys.

II. Some blocks are boxes.

III. No block is box.

(1) Only I follows

(2) Only either II or III follows

(3) Only either II or III, and I follow

(4) None follows

56. The given problem consists of a question and three statements I, II and III given below it. Read all the statements carefully and seek all possible combinations which could be sufficient for answering the question. In which year was Tarun born ?

I. Tarun is six years older than Robin.

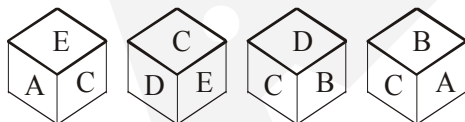
II. Robin's brother was born in 1982.

III. Tarun's brother is two years younger than Robin's brother who was eight years younger than him.

(1) II and III only (2) I and III only

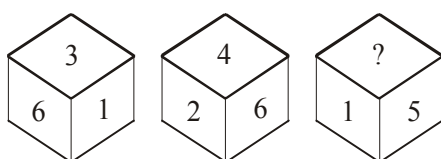
(3) All I, II and III (4) I and II only

57. The figure given below show the four different position of a dice. Which letter will appear opposite to letter D ?



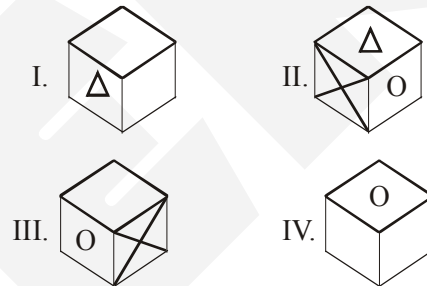
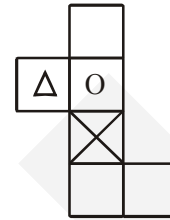
(1) A (2) B (3) E (4) F

58. On the basis of the following figures you have to tell which number will come in place of '?'.



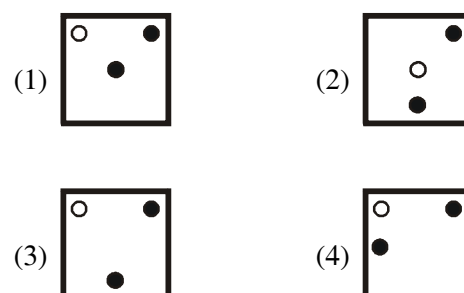
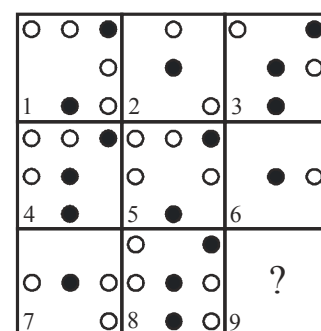
(1) 2 (2) 3 (3) 6 (4) 4

59. In the following question, the figure is folded to form a box. Choose from among the alternatives the box or boxes that can be formed by folding the figure.



(1) Only I (2) Both II and III
(3) Only IV (4) All I, II, III and IV

60. In the following question, find out which of the answer figures (1), (2), (3) and (4) completes the figure matrix ?

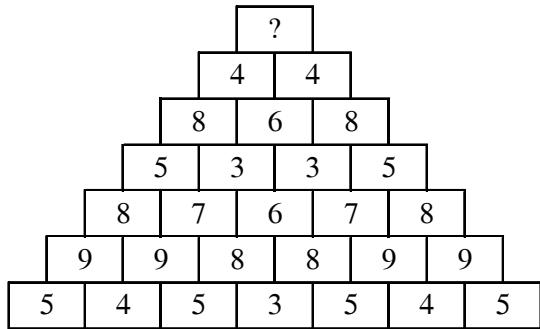


61. $50 \times 50 \times 50 \times \dots$ (where there are a hundred 50's) is how many times $100 \times 100 \times 100 \times \dots$ (where there are fifty 100's) ?
- (1) $25 \times 25 \times 25 \times \dots$ (where there are fifty 25's)
 (2) $4 \times 4 \times 4 \times \dots$ (where there are fifty 4's)
 (3) $2 \times 2 \times 2 \times \dots$ (where there are fifty 2's)
 (4) None of these.
62. There are nine coins that are identical in appearance. One weighs more than the others, which have equal weight. With a balance scale to determine the coin that is heavier in only two weighings, how many coins on each side of the balance scale would you weigh first ?
- (1) 1 vs 1 (2) 2 vs 2
 (3) 3 vs 3 (4) 4 vs 4
63. I left home at 3:00 pm and returned at 3:48 pm. The clock was rotated by 45° , so that when I left, the hour-hand of a clock was pointing along the southeast direction. In which direction would the hour-hand point when I returned?
- (1) 15° East of South (2) 21° East of South
 (3) 63° South of East (4) 27° South of East
- Directions (Q.64 & Q.65) :** Find the statement that must be true according to the given information.
64. On weekends, Mr. Sanchez spends many hours working in his vegetable and flower gardens. Mrs. Sanchez spends her free time reading and listening to classical music. Both Mr. Sanchez and Mrs. Sanchez like to cook.
- (1) Mr. Sanchez enjoys planting and growing vegetables.
 (2) Mr. Sanchez does not like classical music.
 (3) Mrs. Sanchez cooks the vegetables that Mr. Sanchez grows.
 (4) Mrs. Sanchez enjoys reading nineteenth century novels.
65. Sara lives in a large city on the East Coast. Her younger cousin Marlee lives in the Midwest in a small town with fewer than 1,000 residents. Marlee has visited Sara several times during the past five years. In the same period of time, Sara has visited Marlee only once.
- (1) Marlee likes Sara better than Sara likes Marlee.
 (2) Sara thinks small towns are boring.
 (3) Sara is older than Marlee.
 (4) Marlee wants to move to the East Coast.
66. Four people witnessed a mugging. Each gave a different description of the mugger. Which description is probably right ?
- (1) He was average height, thin and middle-aged.
 (2) He was tall, thin and middle-aged.
 (3) He was tall, thin and young.
 (4) He was tall, of average weight and middle-aged.
67. A watch which gains 5 seconds in 3 minutes was set right at 7 a.m. In the afternoon of the same day, when the watch indicated quarter past 4 o'clock, the true time is :
- (1) $59\frac{7}{12}$ min. past 3
 (2) 4 p.m.
 (3) $58\frac{7}{11}$ min. past 3
 (4) $2\frac{3}{11}$ min. past 4
68. A woman says, "If you reverse my own age, the figures represent my husband's age. He is, of course, senior to me and the difference between our ages is one-eleventh of their sum." The woman's age is –
- (1) 23 years (2) 34 years
 (3) 45 years (4) None of these.

69. At the fair I bought 6 erasers and 2 pens for Rs. 15. If I could have bought 4 more erasers for Rs. 14 than pens for Rs. 9, the price of a pen was :

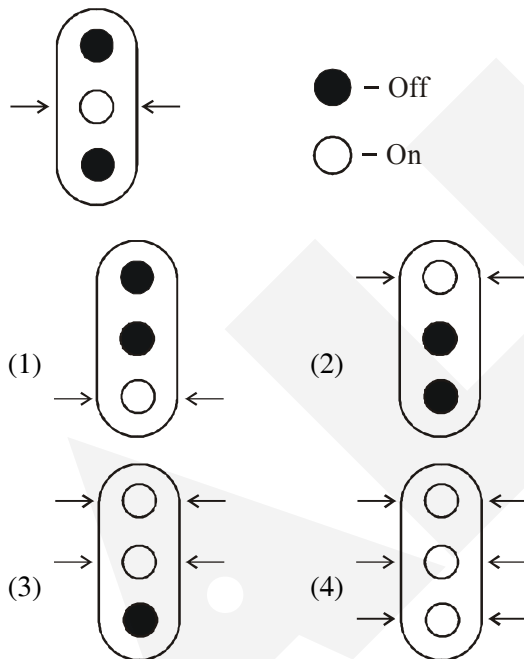
- (1) Rs. 1.50 (2) Rs. 1.75
(3) Rs. 2.25 (4) None of these

70. What number should be in the top brick ?

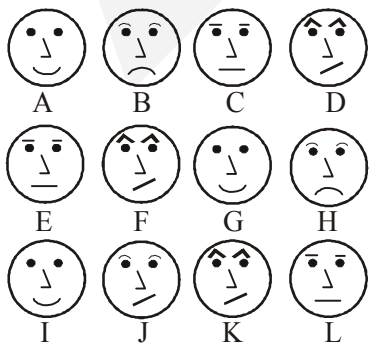


- (1) 4 (2) 5 (3) 6 (4) 8

71. What comes next after the top traffic light ?



72. Who has changed his expression ?

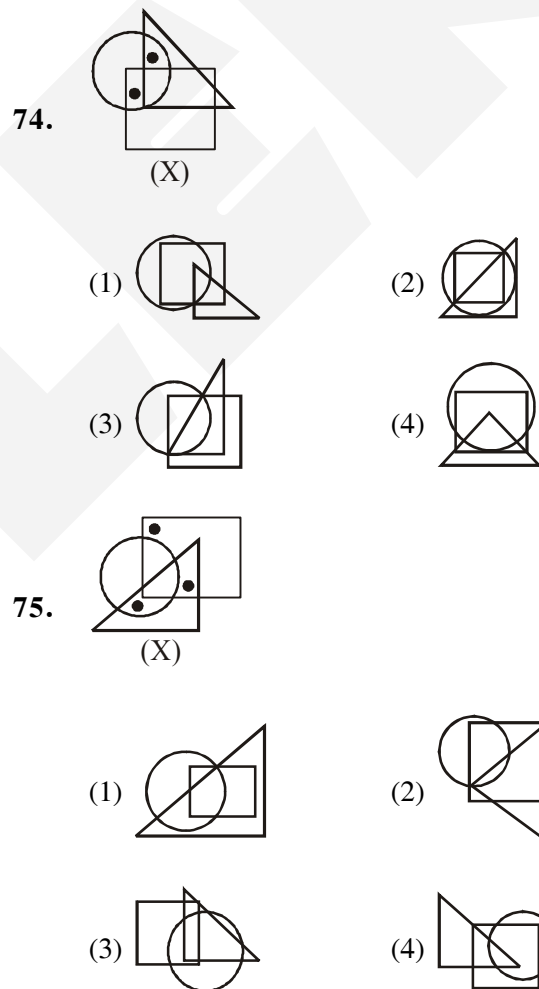


- (1) F (2) H (3) J (4) L

73. Assuming three of these dates are correct, which one is wrong ?

- (1) 7th January 1764 – Saturday
(2) 18th January 1764 – Wednesday
(3) 23rd January 1764 – Sunday
(4) 29th January 1764 – Sunday

Directions (Q.74 & Q.75) : In each of the following questions, there is a diagram marked (X), with one or more dots placed in it. The diagram is followed by four other figures, marked (1), (2), (3) and (4) only one of which is such as to make possible the placement of the alternative in each case.



Directions (Q.76 to Q.78) : In the following letter series, some of the letters are missing which are given in that order as one of the alternatives below it. Choose the correct alternative.

76. a _ b b c _ a a b _ c c a _ b b c c
(1) bacb (2) acba (3) abba (4) caba

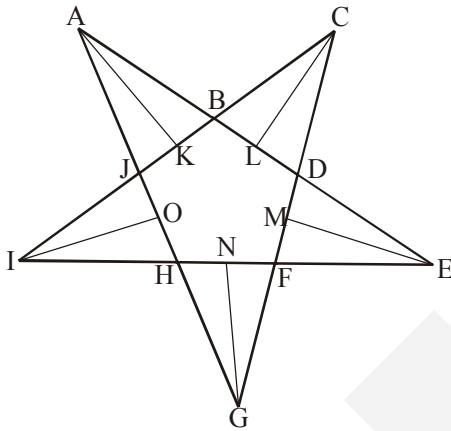
77. b a _ c b _ b _ b a b _

- (1) acbb (2) bcaa (3) cabb (4) bacc

78. x _ x x y y x _ x y y y x x y _ y y _ y

- (1) yyyy (2) xxyx (3) yxyx (4) xxxx

Directions (Q.79 to Q.81) : The following questions are based on the letters written along the figure given below. In each question, the relationship between the two terms written to the left of (: :) is retained in the two terms to the right of it. Out of these four terms, one term is missing. Choose this term out of the given alternatives.



79. AKJ : GNH :: EMD : ?

- (1) CLB (2) CLD (3) AKB (4) EMF

80. AFHO : GBDM :: CHF M : ?

- (1) GBLD (2) IDBK
(3) GPLD (4) GBDM

81. AKJO : IOHN :: ? : CLBK

- (1) LDME (2) EMGH
(3) GNFH (4) EMDL

82. If the English alphabet is written in the reverse order, which will be the fifth letter to the left of the ninth letter from the right ?

- (1) P (2) N (3) D (4) W

83. If every alternative letter of English alphabet from B onwards (including B) is written in lower case (small letters) and the remaining letters are capitalized, then how will the first month of the second half of the year be written ?

- (1) JuLy (2) AuGuSt
(3) jUIY (4) AugUSt

84. Select the combination of numbers so that the letters arranged accordingly will form a meaningful word:

G A N I M E
1 2 3 4 5 6

- (1) 1, 2, 4, 3, 6, 5 (2) 2, 5, 1, 4, 3, 6
(3) 6, 3, 4, 1, 5, 2 (4) 6, 5, 3, 2, 4, 1

85. If it is possible to make a meaningful word with the second, the fifth and the eighth letters of the word CARETAKER, which of the following will be the first letter of that word ? If no such word can be made, give 'X' as the answer. If more than one such words can be made, give 'M' as the answer.

- (1) A (2) E (3) X (4) M

Directions (Q.86 to Q.89) : In the following questions some relations are written by particular indicators as shown below –

- \times = Greater than;
 \square = Not less than;
 \div = Not equal to;
 ϕ = Equal to;
 $+$ = Not greater than;
 Δ = Less than.

Find out the correct answer for each question.

86. If $x \Delta y \div z$, it is not possible –

- (1) $x \div y \phi z$ (2) $x + y \times z$
(3) $x \div y \times z$ (4) $x \Delta y \square z$

87. If $x \square y \square z$, it is not possible –

- (1) $x \phi y \div z$ (2) $x \div y + z$
(3) $x + y \square z$ (4) $x + y \Delta z$

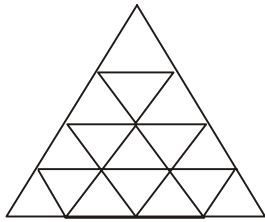
88. If $x \phi y \times z$, it is possible –

- (1) $x \times y \Delta z$ (2) $x \phi y + z$
(3) $x \phi y \square z$ (4) $x \Delta y \div z$

89. If $x \div y \Delta z$, it is not possible –

- (1) $x \times y + z$ (2) $x \div y \times z$
(3) $x \square y \div z$ (4) $x + y + z$

90. How many triangles are there in the following figure ?



- (1) 23 (2) 26 (3) 27 (4) 30

Direction (Q.91 to Q.95) : Refer to the following data and answer the questions that follow.

In a parking lot there are six parking spaces in a row, numbered 1 through 6 consecutively. Exactly five cars of five different colours - blue, green, red, silver, and tan - are to be parked in the spaces, one car to a space, according to the following conditions.

- (i) The red car must be parked in 3.
- (ii) The blue car must be parked in a space next to the space in which the tan car is parked.
- (iii) The green car cannot be parked in a space next to the space in which the silver car is parked.

91. The silver car could be parked in any of the following spaces except:

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

92. If the green car is parked in 2, none of the cars can be parked in :

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

93. If the tan car is parked in 1, how many acceptable parking arrangements are there for the five cars?

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

94. If the tan car is parked in 2, which of the following must be true?

- I. The blue car is parked next to silver car.
- II. The green car is parked in 6.
- III. None of the cars is parked in 5.

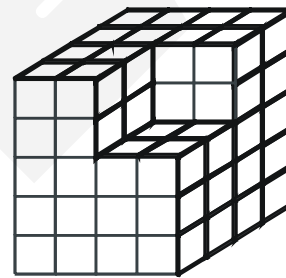
- (1) I only (2) II only
(3) III only (4) I and II

95. Which of the following must be true of any acceptable parking arrangement?

- I. There is an empty space next to the space in which the green car is parked
- II. One of the cars is parked in 2.
- III. One of the cars is parked in 6.

- (1) I only (2) II only
(3) III only (4) I and II

Directions (Q.96 to Q.100) : Some equal cubes are arranged in the form of a solid block as shown in the below figure. All the visible surfaces of the block (except the bottom) are then painted.



96. Find the total number of blocks ?

- (1) 72 (2) 74 (3) 76 (4) 78

97. How many cubes do not have any of the faces painted ?

- (1) 27 (2) 8 (3) 10 (4) 12

98. How many cubes have one face painted ?

- (1) 27 (2) 24 (3) 30 (4) 20

99. How many cubes have only two faces painted ?

- (1) 0 (2) 16 (3) 20 (4) 24

100. How many cubes have only three faces painted?

- (1) 4 (2) 12 (3) 6 (4) 20