Aakash
Medical | IIT-JEE | Foundations
(Divisions of Aakash Educational Services Limited)

***Regd. Office* : Aakash Tower, 8, Pusa Road, New Delhi-110005. Ph.: 011-47623456**

Time : 120 Min.

Questions & Answers
for
NTSE (Stage-II)-2019
MENTAL ABILITY TEST (MAT)
(For Students of Class X)

Max. Marks : 100

---

INSTRUCTIONS TO CANDIDATES :

Read the following instructions carefully before you open the Test booklet.

1. Please **follow the instructions** given on the **OMR sheet** for marking the answers.

2. Write your **eight-digit Roll Number** as allotted to you in the admission card very clearly on the **test-booklet** and darken the appropriate circles on the **OMR sheet** as per instructions given.

3. Write down and darken **Test-booklet Number** in the appropriate circles on the **OMR sheet as per instructions given**.

4. There are **100 questions** in this test. All are compulsory.

5. 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.

6. **Rough work** can be done **anywhere in the Test-booklet** but not on the **OMR sheet**.

7. Each correct answer will be awarded one mark.

8. **THERE WILL BE NO NEGATIVE MARKING.**

1. If,

   O + O = 10

   O + □ + □ = 10

   O × □ − △ × O = 5

   then, the value of △ will be _____.

   (1) 1.5   (2) 2.5

   (3) 5   (4) 7.5

Answer (1)

2. How many parallelograms are there in the given figure?
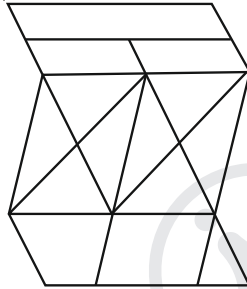

   (1) 14   (2) 15

   (3) 16   (4) 17

Answer (2)

3. A newspaper has 6 sheets consisting of 24 pages in total. If page number 17 of that newspaper is missing then find the set of missing pages in that newspaper, from the alternatives given below :

   (1) 6, 7, 16, 17   (2) 7, 8, 17, 18

   (3) 8, 9, 17, 18   (4) 9, 10, 16, 17

Answer (2)

4. The given figure in the question has five squares and four equilateral triangles. Two squares and two triangles are shaded. The figure is folded along the dividing lines, the squares by 90° and triangles by 45° so as to form a closed three dimensional object. The object is then placed with its apex pointing towards your left. Which one among the figures given in the alternatives can be seen?
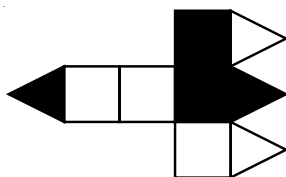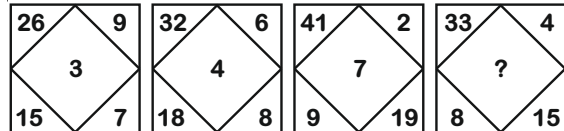

   (1)   (2)

   (3)   (4)

Answer (3)

5. Complete the following series:

   6, 24, 60, ?, 210

   (1) 96

   (2) 120

   (3) 140

   (4) 160

Answer (2)

6. By studying the figure and number relationship, find the missing number '?' :

   (1) 5   (2) 6

   (3) 9   (4) 12
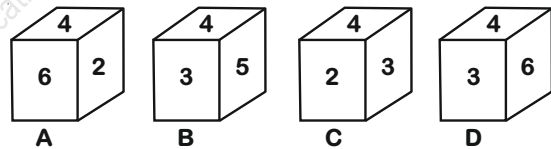
Answer (2)

7. The opposite faces of Dice X are :

   [(5, 2), (6, 3), (4, 1)]

   The opposite faces of Dice Y are :

   [(3, 5), (4, 1), (6, 2)]

   Which figure can represent both Dice X and Dice Y with faces shown below?

   (1) A   (2) B

   (3) C   (4) D

Answer (3)

8. If

         R S S T U

   +   N R S T

   +   R T S

   ─────────

     3 7 8 4 9

   then, find the code for T U R N S from the given alternatives provided there is no carrying over in the given addition using letter codes.

   (1) 1 3 6 2 5

   (2) 6 5 2 3 1

   (3) 1 6 3 5 2

   (4) 5 3 1 2 6

Answer (3)

9. A comparison of ages of A, B, C, D and E are as follows.

   I.   B's age is half the age of A.

   II.   B's age is 1½ times the age of C.

   III.   D's age is 12 years less than C.

   IV.   D's age is 1½ times the age of E.

   V.   The age of E is 12 years.

With the given data what will be the difference in the ages of A and C?

(1) 64

(2) 60

(3) 40

(4) 36

Answer (2)

10. If CLOUD = 11, BURST = 16 and ACE = 3, then MONSOON = ?

(1) 13   (2) 15

(3) 17   (4) 19

Answer (2)

11. Three dice are rolled simultaneously and the numbers shown on all the three dice are added, then the total number of possible ways to have a sum of 7 is_____.

(1) 12   (2) 13

(3) 15   (4) 16

Answer (3)

12. A comparison of marks scored by Gauri, Aaban, Seerat and Alvina in an examination is as follows.

   I.   Gauri has scored 15 marks less than Aaban.

   II.   Gauri has scored 20 marks more than Seerat.

   III.   Alvina has scored 10 marks less than Seerat.

To decide who has scored the highest marks, identify the statement from those given in the alternatives in respect of sufficiency of data.

(1) Data given in I and II are sufficient

(2) Data given in I and III are sufficient

(3) Data given in II and III are sufficient

(4) Data given in I, II and III are sufficient

Answer (4)

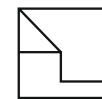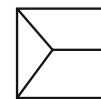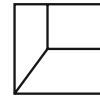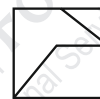13. The number in the place of '?' should be____.
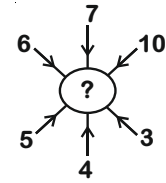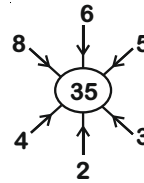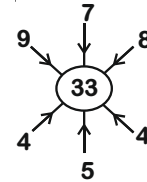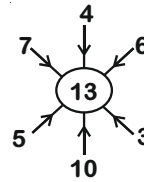
(1) 30   (2) 32

(3) 34   (4) 36

Answer (2)

14. Find out which of the following figures can be formed from the pieces given in the figure 'X'?
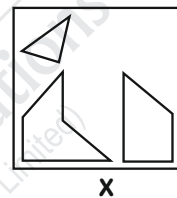
(1) A   (2) B

(3) C   (4) D
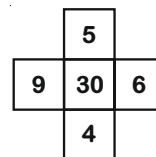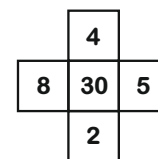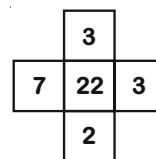
Answer (1)

15. Find the missing number '?' in the figure given below:
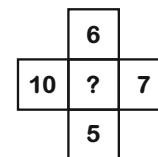
(1) 30   (2) 32

(3) 33   (4) 35

Answer (4)

16. If MOBILE is coded as DFBICE, then CHARGE is coded as:

(1) CHBXQE   (2) CLARTE

(3) CHAIGE   (4) CHIAEF

Answer (3)

17. Study the following information.

If 'A$B' means A is brother of B,

'A@B' means A is wife of B,

'A#B' means A is daughter of B and

'A£B' means A is father of B.

Based on the above information, which of the following alternative represents the correct group of symbols that indicates the relationship for 'K is father-in-law of H'?
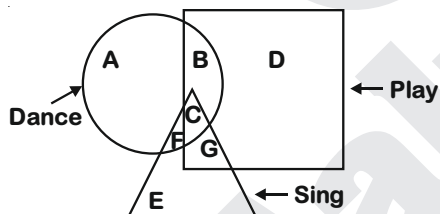
(1) H@J$L#P£K

(2) H@J$P£L#K

(3) H@J$L#K£P

(4) H@P$J£L#K

Answer (3)

Directions: (Questions 18 - 20)

The following figures represent students who can play, sing and dance.

18. Which part of the figure represents students who can sing and dance?

(1) F

(2) C

(3) F and C

(4) E and G

Answer (3)

19. The number of students who can play is more by 'a' than the number of students who can dance; and the number of students who can do both playing and singing is more by 'b' than the number of students who can do both singing and dancing. Then what is the difference of the number of students who can only dance and who can only play?

(1) a + b

(2) (2a – b) or (b – 2a)

(3) (a – 2b) or (2b – a)

(4) (a – b) or (b – a)

Answer (4)

20. It is given that the total numbers of students in all the three disciplines are same. Also, sum of the number of students who can only dance, and twice of the number of students, who can do both singing and dancing, equals the sum of the students who can do both singing and playing, and the students who can do both dancing and playing. Then which among the alternatives is a correct statement about the number of students who can only play and those who can only sing?

(1) The number of students who can only sing is twice as many as the number of students who can only play

(2) The number of students who can only sing is equal to the sum of the number of students who can sing and dance and the number of students who can only play and sing

(3) The number of students who can only play and sing equals the number of students who can only dance and play

(4) The number of students who can only dance equals to the number of students who can only sing

Answer (1)

21. Complete the following series

1, –8, 81, ?, 15625

(1) –1022

(2) –1024

(3) –4094

(4) –4096

Answer (2)

22. Yaibiren is standing 4 metres East of Rajib, who is 1 metre North of Achira. If Sahibah is standing 3 metres South of Achira, then in which direction of Yaibiren, is Sahibah?
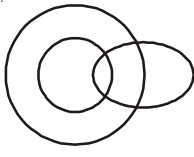
(1) North-East

(2) North-West

(3) South-East
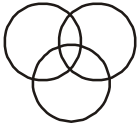
(4) South-West

Answer (4)

23. Which of the following diagram indicates the best releationship among men, fathers and teachers?
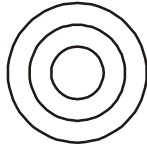

A   **B**

C   **D**

(1) A   (2) B

(3) C   (4) D

Answer (1)

24. Ishan wishes Irfan 'Good Morning' when the hour hand of a (measured clockwise) clock is positioned between 9 and 10. The angle between the two hands is 145°. The time shown by the clock is

(1) 9.08 AM

(2) 9.10 AM

(3) 9.12 AM

(4) 9.15 AM

Answer (2)

25. If '15 + 10 means 5'; '6 × 3 means 9'; '8 ÷ 4 means 32'; and '12 – 2 means 6'; then what will be the value of 27 + 81 – 9 × 6?

(1) 36   (2) 24

(3) 12   (4) 6

Answer (2)

26. Which number will replace the '?' in the following sequence?

5, 7, 14, 24, 42, ?, 119

(1) 71   (2) 67

(3) 65   (4) 63

Answer (1)

27. What will be the missing term '?' in the given series?

AK, FP, ?, PZ, UE, ZJ

(1) KU   (2) JT

(3) JU   (4) KV

Answer (1)

28. In a family of four members there is father, mother, son and daughter. When sorted according to decreasing order of their ages, the order is father, mother, son and daughter. The difference between the age of father and mother is 5 years. The difference between total age of male members and female members is 15 years. Also, the total age of children is 20 years, then the age of the son is _____.

(1) 10 years   (2) 15 years

(3) 20 years   (4) 25 years

Answer (2)

29. If the ninth day of a month is four day earlier than Thursday then what day will it be on the twenty third day of the month?

(1) Monday   (2) Wednesday

(3) Friday   (4) Sunday

Answer (4)

30. Which number replaces that question mark '?' in the given figure?
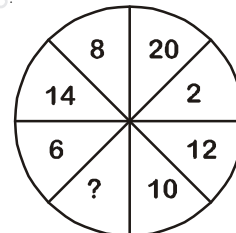
(1) 4   (2) 16

(3) 18   (4) 22

Answer (2)

31. Find the missing value '?' in the following series :

13, 34, 74, ?, 290

(1) 168   (2) 170

(3) 172   (4) 174

Answer (2)

32. What number comes in place of '?' in the given figure?

(1) 9   (2) 8

(3) 7   (4) 6

Answer (1)

33. The following figures represent information given against them.

☐ Total number of students who applied for Board Examination.

△ Total number of students who actually appeared at Board Examination

○ Total number of urban students who appeared at Board Examination
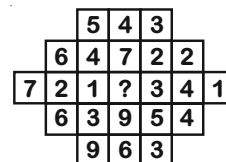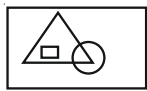
☐ Total number of students who qualified at Board Examination.

Based on the above information which of the following figures represents the above facts?

(1) [figure] (2) [figure]

(3) [figure] (4) [figure]

Answer (3)

34. Five friends P, Q, R, S and T read a newspaper. The one who reads first gives it to R. The one who reads last had taken it from P. T was neither the first nor the last one to read. There were two readers between Q and P. Who reads the newspaper last?

(1) P   (2) Q

(3) R   (4) S

Answer (4)

35. A clock shows 05:45. A plane mirror is kept on the right of the clock, with its plane perpendicular to the face of the clock. What time will be shown by the mirror image?

(1) 06:45   (2) 05:15

(3) 06:15   (4) 07:15

Answer (3)

36. In a certain code language "Kolkata is cultural hub of India" is coded as "$\alpha 2463\beta$" and "Mumbai is financial hub of India" is coded as "$\gamma 3472\beta$". Then in the same language "India is hub of democracy" may be coded as

(1) α 2 4 3 9

(2) 2 4 3 γ 7

(3) β 3 2 4 9

(4) 3 2 β 4 7

Answer (3)

37. Which letter is midway between 13th letter from the left and the 4th letter from the right in the sequence given below?

USBEYFHKOPRAWCGJMQDIVLNTXZ

(1) O   (2) Q

(3) P   (4) M

Answer (2)

38. Which of the following figure(s) cannot be drawn without either lifting the pen or re-tracing any line?

[figures A, B, C, D]

A   B   C   D
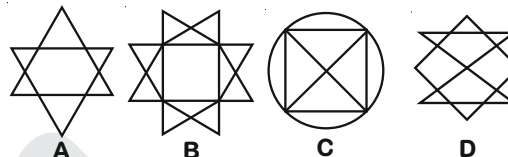
(1) Only A   (2) Both A and B

(3) Only C   (4) Both C and D

Answer (3)

39. Find the missing values in place of the question marks in the given pattern.

1	X	5	?	34
	1	3	8	21
Y	2	U	?	H

(1) I 13   (2) N 10

(3) M 13   (4) Z 18

Answer (3)

40. What will be the missing number in the given series?

1332, 732, 348, _____, 36, 12

(1) 32   (2) 132

(3) 148   (4) 216

Answer (2)

41. Find the missing term '?' in the given figure.

[figure with I_{12}, D_6, ?, A_2, Y_{30}]
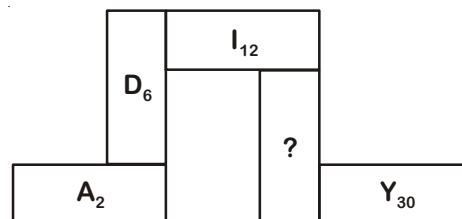
(1) N_{10} (2) P_{20}

(3) O_{24} (4) Q_{16}

Answer (2)

42. If,

    a > b

    a > 0,

    and b ≠ 0,

    then which of the following statements is always true?

    (1) a × b > 0   (2) a × b < 0

    (3) a × b is undefined (4) a × b² > 0

Answer (4)

43. In certain coded language

    'way to win' is written as AAaa aaaa AAAa,

    'Go to Walk' is written as Aaaa aaaa AAAA,

    'Get up early' is written as AaAa AaaA aaAA.

    Then, how can 'Always go to morning walk early' be written in that coded language?

    (1) aaAA Aaaa aaaa aaaA AAaa aaAA

    (2) aaAA Aaaa aaaa aaaA AAAA aaAA

    (3) aaAA AaAa aaaa aaaA aaAA AAaa

    (4) aaaA AaAa aaaa aaAA AAAA aaAA

Answer (2)

44. If + means ×; ÷ means −; − means +; and × means ÷, then 2 + 12 × 4 − 6 ÷ 6 is equal to _____.

    (1) 0   (2) 6

    (3) 12   (4) 49

Answer (2)

45. In the given equation, which two numbers in the expression on the left hand side will be interchanged to form a correct equation?

    5 + 4 × 8 ÷ 12 − 3 = 3

    (1) (3, 5)   (2) (4, 12)

    (3) (3, 4)   (4) (8, 5)

Answer (3)

46. If a, b, c, d and e are positive numbers and it is given that,

    a + b = c + d,

    b + d = 2a,

    d + e > a + b and

    c + d > a + e

    then, which of the following statement is true?

    (1) d > a > b > e > c   (2) d > b > e > a > c

    (3) a > b > c > d > e   (4) a > d > b > e > c

Answer (1)

47. Kashvi facing towards rising sun turned to her left and walks for 60 m. She then turned to west and walked for 15 m. Then she turned towards left at an angle of 45° and reached 95 m from her original position. How much total distance did she travel?

    (1) 95 m   (2) 115 m

    (3) 155 m   (4) 175 m

Answer (*)

    *No option is correct

48. A cube is coloured on all the six faces with six different colours – black, brown, green, red, yellow and blue.

    • Red face is opposite to the black face.

    • Green face is between red and black faces.

    • Blue face is adjacent to yellow face.

    • Brown face is adjacent to blue face.

    • Red face is in the bottom.

    Which of the following are adjacent to green?

    (1) Black, yellow, brown, red

    (2) Blue, black, red, yellow

    (3) Red, black, blue, yellow

    (4) Yellow, blue, black, red

Answer (1)

49. A watch gains 10 seconds in 3 minutes. It was set right at 9 A.M. In the evening of the same day, when the watch indicates half past 6 O' clock, the true time is

    (1) 5:30:00 P.M.   (2) 5:48:10 P.M.

    (3) 5:58:20 P.M.   (4) 6:08:20 P.M.

Answer (3)

50. Given x is real and that

    (A) $x^2 = 49$,   (B) $x^3 = 343$,

    examine the given alternatives in respect of arriving at the Conclusion: x = 7 and find which is valid

    I.   Only A is sufficient to answer the question

    II. Only B is sufficient to answer the question

    III. Either A or B alone is sufficient to answer the question

    IV. Both A and B together are sufficient to answer the question

    (1) I   (2) II

    (3) III   (4) IV

Answer (2)

51. Find the values of 'x' and 'y' from the figure given below
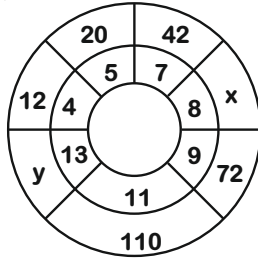
(1) 65, 150
(2) 46, 125
(3) 56, 156
(4) 56, 165

Answer (3)

52. In a certain code 'COUNTRY' is written as 'ZSUOVPD'. How is 'TEACHER' written in the same code?

(1) SUTIFED
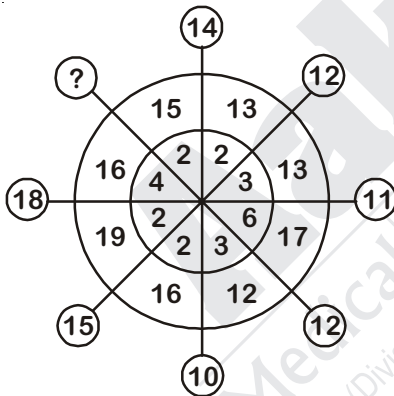(2) REHCAET
(3) QDGBDS
(4) SFIDBFU

Answer (4)

53. What number should replace the question mark?

(1) 15
(2) 14
(3) 13
(4) 10

Answer (3)

Directions : (Questions 54 - 58)

A, B, C, D, E, F and G are seven teachers. Each one teaches only one and different language from among Konkani, Hindi, Malayalam, English, Manipuri, Tamil and Kannada on different days of a week. C teaches Malayalam on Friday. B teaches Konkani on the next day of the day on which the concerned teacher teaches English. F teaches on Thursday but neither teaches Hindi nor English. D teaches Tamil on the previous day on which day F teaches. A teaches Kannada on Tuesday. G teaches on the next day of the day on which the concerned teacher teaches Malayalam. E does not teach English.

54. Which subject does E teach?

(1) Tamil
(2) Hindi
(3) Manipuri
(4) Malayalam

Answer (2)

55. On which day B teaches?

(1) Monday
(2) Friday
(3) Wednesday
(4) Sunday

Answer (4)

56. Which language does F teach?

(1) Manipuri
(2) Kannada
(3) Tamil
(4) English

Answer (1)

57. Which language does G teach?

(1) Hindi
(2) English
(3) Kannada
(4) Konkani

Answer (2)

58. On which day D teaches?

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

Answer (3)

59. One morning at 8 A.M. Navneet and Ravneet were standing on a lawn with their back towards each other at the distance of 100 m. Navneet's shadow fell exactly towards his left hand side. After 15 minutes, Ravneet turns 135° anticlockwise. Which direction Ravneet is facing now?

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

Answer (1)

60. Find the missing number

2, 3, 7, _____, 2112

(1) 36
(2) 45
(3) 46
(4) 49

Answer (3)

61. In a code **BH** = 16, **DO** = 60 and **TA** = 20, then the code for **BAT** = ?

(1) 20
(2) 30
(3) 40
(4) 60

Answer (3)

62. The figure given below is prepared by some sticks and provides an equation that is incorrect. How many minimum numbers of sticks must be removed from the left hand side to make it a correct equation?

$$86 + 36 + 98 = 100$$

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

Answer (2)

63. If 63578 is to 1415,

56732 is to 185,

and 34124 is to 86,

then, 72648 is to ?

(1) 1215

(2) 1415

(3) 1512

(4) 1514

Answer (3)

64. Two friends Mr. A and Mr. B stand according to figure 1. The two friends then interchange their positions as given in figure 2.

Figure-1

Figure-2

The height of the wall from the ground is _____.

(1) 115 cm

(2) 120 cm

(3) 127.5 cm

(4) 130 cm

Answer (2)

65. In a certain coding scheme, consonants and vowels are coded differently as illustrated below:

C is coded as 6.

Z is coded as 52.

E is coded as 9.

O is coded as 29.

Then find the sum of numerals in the coded version of **FAITH**.

(1) 84
(2) 85
(3) 86
(4) 87

Answer (3)

66. In a class 20% of students are below 14 years of age. Out of the remaining students 10% are of the age 14 - 15 years and ratio of students who are between 15 - 16 years of age to student above 16 years of age is 3 : 2. If the number of students who are above 16 years is 72, what is the total number of students in the class?

(1) 200
(2) 250
(3) 300
(4) 400

Answer (2)

67. Study the figure given below representing a particular number in a coded manner,

for example, the number 6825 coded by the following symbols-

Based on the above information find the number coded for the following symbols.


(1) 63205
(2) 11309
(3) 11523
(4) 65230

Answer (2)

68. Five friends decided to play a game of badminton. Each of the five plays against every other friend. The winner gets two points for each game he or she wins and the loser gets zero. Then which of the following cannot represent the scores of five friends?

    (1) 4, 4, 4, 4, 4

    (2) 6, 4, 4, 4, 2

    (3) 8, 8, 2, 2, 0

    (4) 6, 6, 4, 2, 2

Answer (3)

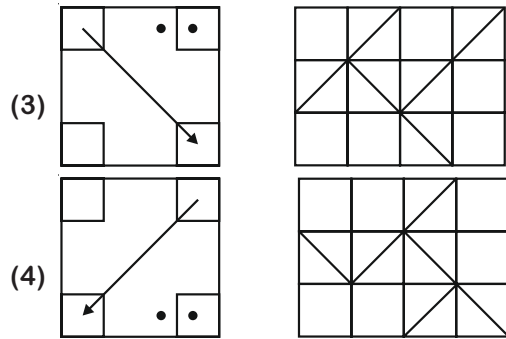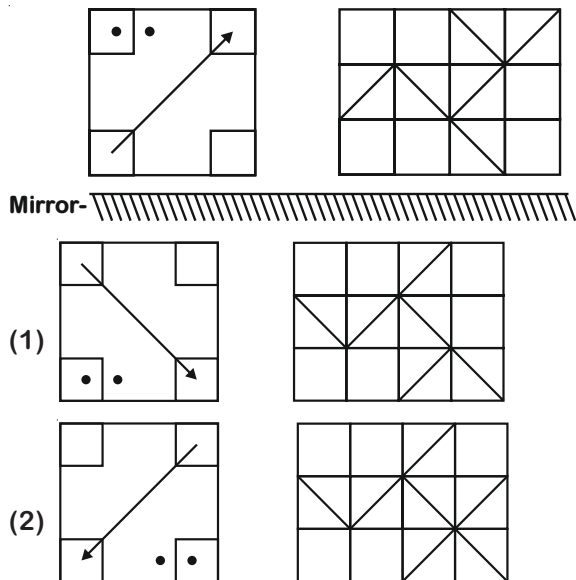69. Study the given figure and answer the following question
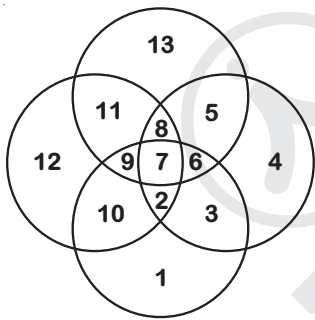
    Let x denote sum of numbers present in at least 2 circles and y denote sum of numbers present in exactly 3 circles. Then x – y = ____.

    (1) 11   (2) 25

    (3) 36   (4) 61

Answer (3)

70. Choose the correct mirror image of the following figure, if the mirror is placed as shown.

Mirror- \\\\\\\\\\\\\\\\\\\\\

(1)

(2)

(3)

(4)

Answer (1)

71. Observe the figures given below :
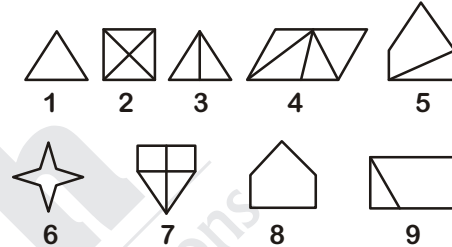
    Based on the above figures identify the correct group of categorization?

    (1) 1,3,6; 2,4,9; 5,7,8

    (2) 1,2,3; 4,5,8; 6,7,9

    (3) 1,6,8; 3,5,9; 2,4,7

    (4) 1,3,6; 2,5,7; 4,8,9

Answer (3)

72. Raju invited friend George for a dinner at his house. When George asked for the direction of Raju's house, Raju gave him the following instruction.

    Proceed 140 metres south from your house then walk 200 metres to east. Then turn to north and walk 100 metres. After that, walk 160 metres to west.

    What is the shortest distance between the two houses and the direction to Raju's house from George's house?

    (1) $40\sqrt{2}$ metres and north-west

    (2) $40\sqrt{2}$ metres and south-east

    (3) 80 metres and south-east

    (4) 80 metres and north-west

Answer (2)

73. In a code language if 'APPEAL' is coded as '256572' and 'PLAY' is coded as '7259' then in the same language 'PEARL' will be coded as (each number code stands for unique alphabet)_____.

    (1) 2 5 7 6 8   (2) 2 5 3 8 7

    (3) 6 7 5 2 2   (4) 2 5 6 7 9

Answer (1)

Directions : (Questions 74 - 76)

Five students Ujith, Mahi, Rizan, Sahir and Amelia appeared for an examination in English and Mathematics.

I.   Sahir scored more marks than Amelia in Mathematics but scored less in English than Ujith and Mahi.

II. In Mathematics Rizan scored more marks than Amelia but less than what Mahi has scored.

III. Amelia scored more than Rizan in English and Rizan scored more than Mahi in English.

IV. Ujith scored more than Mahi in Mathematics but less than Rizan in English.

V.   Sahir Scored less than Mahi in Mathematics.

74. The least scorer in Mathematics and top scorer in English are respectively

    (1) Sahir and Ujith

    (2) Amelia and Amelia

    (3) Ujith and Sahir

    (4) Ujith and Ujith

Answer (2)

75. Which of the following cannot be determined?

    (1) Amelia scored more than Mahi in English.

    (2) Mahi scored more than Amelia in Mathematics.

    (3) Sahir scored less than Mahi both in Mathematics and English.

    (4) Ujith scored less than Mahi in English.

Answer (4)

76. Which of the following is necessarily correct?

    (1) Rizan scored more than Sahir in Mathematics.

    (2) Ujith scored more than Sahir both in Mathematics and English.

    (3) Sahir scored more than Ujith in Mathematics.

    (4) Rizan scored more than Ujith both in English and Mathematics.

Answer (2)

77. The third day before 1st January 2019 was Saturday. Which day will the fourth day of March 2020 be?

    (1) Friday   (2) Saturday

    (3) Wednesday   (4) Thursday

Answer (3)

78. Observe the given figure below
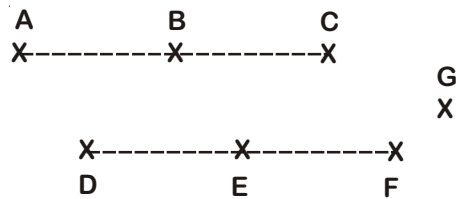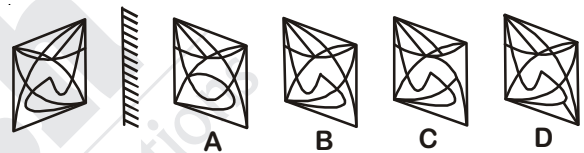

Based on the figure how many maximum numbers of triangles can be formed with the seven points A, B, C, D, E , F and G?

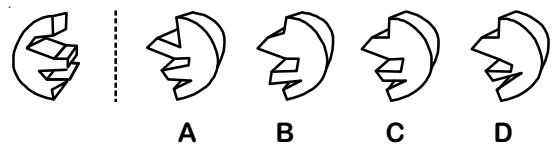   (1) 21   (2) 24

    (3) 33   (4) 36

Answer (3)

79. Find the correct mirror image for the following problem figure from the alternatives.

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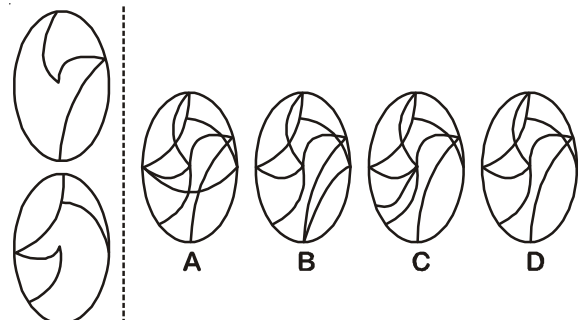
    (3) C   (4) D

Answer (2)

80. A circular disc is cut into two parts. One of the parts is given as the question figure. Which is the other part? Select from the options.

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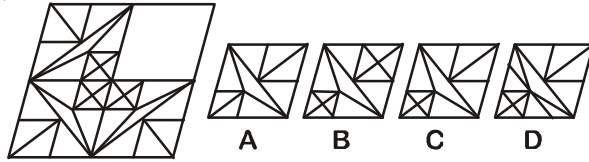
    (3) C   (4) D

Answer (3)

81. Two figures on transparent sheets are given on the left side. When the upper figure is exactly placed on the lower figure, find from the option figures how the resultant looks like.

    (1) A   (2) B

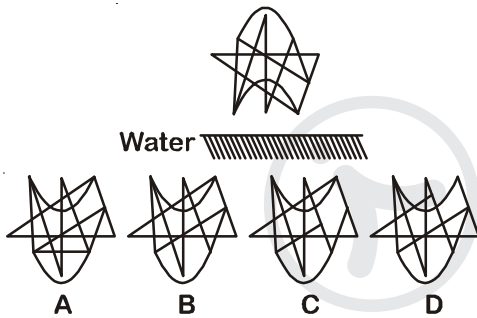   (3) C   (4) D

Answer (4)

82. Find the missing part of the given figure from the alternatives which completes the pattern.

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

Answer (3)

83. Find the correct water image for the following problem figure choosing from the alternatives.

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

Answer (2)

Directions: (Questions 84-88)

In the folliwing question, there are statements followed by conclusions. Choose the conclusion(s) which must logically follow from the given statements.

84. Statements:
   A. Some grandmothers are mothers.
   B. Some mothers are daughters.
   C. All the daughters are married women.

   Conclusions:
   I. Some married women are mothers.
   II. Some daughters are grandmothers.
   III. No daughter is grandmother.
   IV. Some mothers are grandmothers.

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

Answer (4)

85. Statements:
   A. Some students are smart-working.
   B. All Intelligent are smart-working.
   C. All the teachers are students.

   Conclusions:
   I. Some students are Intelligent.
   II. No teacher is smart-working.
   III. Some Intelligent are students.

   (1) Either I or II
   (2) Only I and II
   (3) None of I, II and III
   (4) Only I and III

Answer (3)

86. Statements:
   A. Some students are orators.
   B. All orators are goalkeepers.
   C. Some goalkeepers are honest.

   Conclusions:
   I. Some students are honest.
   II. Some goalkeepers are students.

   (1) Only conclusion I
   (2) Only conclusion II
   (3) Both conclusion I and II
   (4) Neither conclusion I nor II

Answer (2)

87. Statements:
   A. Some men are women.
   B. All women are teachers.
   C. Some teachers are doctors.

   Conclusions:
   I. Some doctors are women.
   II. Some teachers are women.
   III. Some teachers are men.
   IV. Some doctors are men.

   (1) Only I and II
   (2) Only I and IV
   (3) Only II and III
   (4) Only III and IV
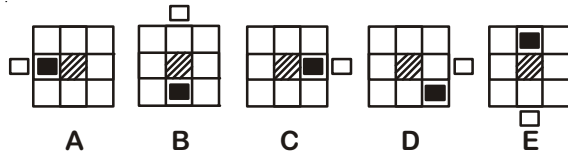
Answer (3)

88. Statements:
   A. Some candidates are students.
   B. All children are citizens.
   C. All citizens are candidates.

   Conclusions:
   I. Some citizens are students.
   II. Some candidates are children.
   III. All children are candidates.
   IV. No child is student.

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

Answer (2)

89. Study the figure given below:
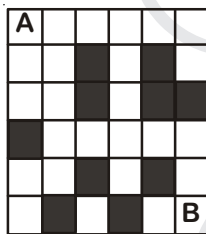

A   B   C   D   E

Find which figure is to be removed, starting from A, so that all fit into a pattern.
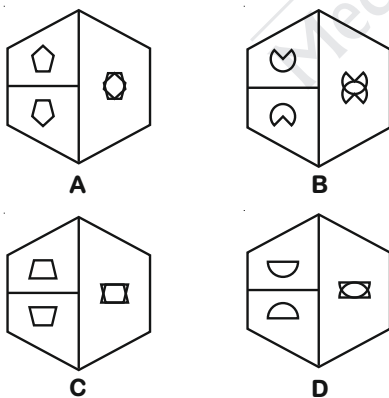
(1) B

(2) C

(3) D

(4) E

Answer (3)

90. What is the minimum number of un-shaded boxes to be crossed for covering the shortest path from 'A' to 'B' (both exclusive) without retracing the path and without diagonal movements?

(1) 8   (2) 9

(3) 10   (4) 11

Answer (2)

91. Observe the figures given below :

A   B

C   D

The odd one out from the given figure is _____.

(1) A

(2) B

(3) C

(4) D

Answer (2)

92. A river flows along the East-West direction. On a particular day in the morning Kisku was seen at a place 'A' located on the northern side of the river and on the same evening he was seen at a place 'B' located on the southern side of the river.

Following are the comments made by four friends - Paulomi, Mimee, Sabeena and Grayson.

I.   Paulomi said, Kisku must have crossed the river only once.

II. Sabeena said, Kisku might have crossed the river four times.

III. Mimee said, he might have crossed it five times.

IV. Grayson said, he might have crossed it any number of times.

Choose the correct alternative from the following:

(1) Only I is correct

(2) Only II is correct

(3) I or III is correct

(4) I and II are correct

Answer (3)

Directions : (Questions 93-94)

In a town of 1000 people, 570 read Hindi newspaper, 424 read English newspaper and 254 read Punjabi newspaper; 40 read only Hindi and Punjabi newspaper; 58 read only Hindi and English newspaper; and 70 read only Punjabi and English newspaper. 100 read no newspaper.

93. How many people read only one newspaper?

(1) 570   (2) 642

(3) 914   (4) 968

Answer (2)

94. How many people read all the three newspapers?

(1) 40   (2) 58

(3) 70   (4) 90
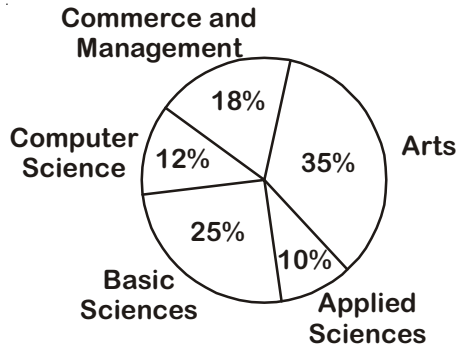
Answer (4)

95. Complete the given letter analogy.

LTFQIW : YGSJVD : DOIYKV : ?

(1) QBVIXL   (2) WLRBCI

(3) QLVBXE   (4) QBVLXJ

Answer (3)

96. The given pie-diagram shows the streams opted by students at senior-secondary level.

If sum of the angles for the students who opted different streams is 144° then the streams are _____

(1) Arts, Applied Sciences

(2) Basic Sciences, Computer Science

(3) Basic Sciences, Commerce and Management

(4) Applied Sciences, Computer Science, Commerce and Management

Answer (4)

97. Four relations have been given as alternatives (p), (q), (r), (s), out of which only one becomes acceptable if the signs, + and ÷ and the numbers, 4 and 5 are mutually interchanged. Identify that relation.

(p) $24 + 8 × 4 = 20 ÷ 5$

(q) $20 ÷ 4 × 16 + 5 = 75$

(r) $3 × 24 + 5 = 16 ÷ 4$

(s) $20 ÷ 5 – 6 = 3 × 30 + 4$

(1) (p)   (2) (q)

(3) (r)   (4) (s)

Answer (4)

98. There are 20 steps to go to the first floor of a building from the ground floor.

A child starts climbing up from the first step of the ground level. Mother starts coming down from the fourth step from the floor level of the first floor.

If both have started at the same time with same speed, at which step would they meet counting from the first step from the floor level of the first floor?

(1) 9   (2) 10

(3) 11   (4) 12

Answer (4)

99. The following question consists of four problem figures marked as A, B, C and D. Select a figure in place of '?' for E which will continue the series established by the four problem figures, A, B, C, D.
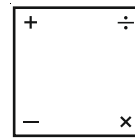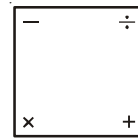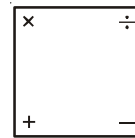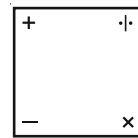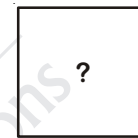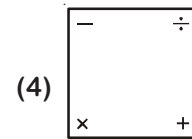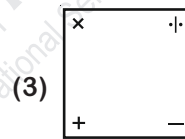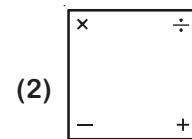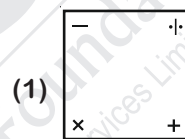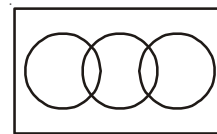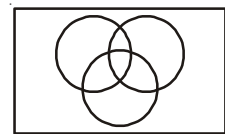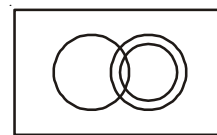

Answer (1 or 4)

100. Which one of the following venn diagrams represents the relation among men, doctors and patients in a hospital?
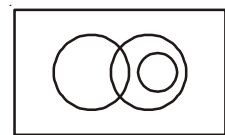

(1) A

(2) B

(3) C

(4) D

Answer (2)