MENTAL ABILITY TEST
(For Students of Class X)

Time: 120 Minutes
Max. Marks: 100

INSTRUCTIONS TO CANDIDATES

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

1. Answers are to be given on a separate OMR sheet.
2. Please follow the instructions given on the OMR sheet for marking the answers.
3. 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.
4. Write down and darken Test Booklet Number in the appropriate circles on the OMR sheet as per instructions given.
5. There are 100 questions in this test. All are compulsory.
6. 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.
7. Rough work can be done anywhere in the Test booklet but not on the OMR sheet/loose paper.
8. Each correct answer will be awarded one mark.
9. THERE WILL BE NO NEGATIVE MARKING.
10. Please return only the OMR sheet to the invigilator after the test.
11. English version of the question paper will be considered as final in case of any dispute arising out of variation in translated version.

PLEASE TURN OVER THE PAGE AND START YOUR WORK

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1. Which figure completes the statement?

![Figures](image)

2. Fact 1: Ravneet said, "Mehar and I both have goats."
   Fact 2: Mehar said, "I don't have a goat."
   Fact 3: Ravneet always tells the truth, but Mehar sometimes lies.

If the three statements are facts, which of the following statements must also be facts?

I. Mehar has a goat.
II. Ravneet has a goat.
III. Mehar is lying.

1. II only
2. I and II only
3. I, II and III
4. II and III only
3. Look at the patterns in the squares and understand their relationship to one another so as to fill in the square with missing symbols.

4. Danish starts walking straight towards East. After walking 75 m, he turns to the left and walks 25 m straight. Again he turns to the left, walks a distance of 40 m straight, again he turns to the left and walks a distance of 25 m. How far is he from the starting point?

1. 30 m
2. 35 m
3. 40 m
4. 50 m
5. In the question given below, there are four statements which are to be taken as truth even if they do not seem to be so. There are conclusions numbered I, II, III and IV. Decide which of these logically follow from the given statements.

All students who like English also like Mathematics. Some students like Hindi. All students who like Hindi do not like Mathematics. Students who like Mathematics also like English.

I. Students who like Hindi also like English.
II. Students who like Mathematics also like Hindi.
III. Students who like Mathematics do not like Hindi.
IV. Students who like English do not like Hindi.

1. I and II
2. I and III
3. I and IV
4. III and IV

6. The number in the place of '?' should be

6. '?' के स्थान पर संख्या होनी चाहिए-

1. 42
2. 58
3. 59
4. 68
Direction (7-9) : Answer these questions by using the following diagram.

Each square stands for different class.
A. represents Indians
B. represents Students
C. represents Talented individuals
D. represents Players

7. How many Indian non-player students who are talented?
   1. 5
   2. 7
   3. 10
   4. 12

8. How many talented Indians are players?
   1. 13
   2. 17
   3. 19
   4. 22

9. How many talented Indians are there, who are students?
   1. 13
   2. 15
   3. 17
   4. 19
Direction (10-11): Study the following diagram.

A: Representing people who read newspaper A
B: Representing people who read newspaper B
C: Representing people who read newspaper C

Based on the above information answer the question 10-11.

10. If the number of people in B is 10 more than A, what is the total number of people in only B (i.e., in B but not in A or C)?

1. 14
2. 24
3. 30
4. 36

11. If sum of the number of people in only B and the number of people common in both A and B is 63 and the number of people in B is twice the number of people in A, then the values of x and y are respectively:

1. 15, 4
2. 48, 5
3. 51, 7
4. 51, 8

A: समाचार-पत्र A पढ़ने वाले व्यक्तियों को निरूपित करता है।
B: समाचार-पत्र B पढ़ने वाले व्यक्तियों को निरूपित करता है।
C: समाचार-पत्र C पढ़ने वाले व्यक्तियों को निरूपित करता है।

उपयुक्त जानकारी के आधार पर प्रश्न 10-11 का उत्तर दीजिए।

10. यदि B में व्यक्तियों की संख्या A के व्यक्तियों की संख्या से 10 अधिक है, तो केवल B में कुल कितने व्यक्ति है? (अर्थात् B में, परंतु A या C में नहीं)

1. 14
2. 24
3. 30
4. 36

11. यदि केवल B, के व्यक्तियों की संख्या तथा A और B, दोनों में उपयोगिता व्यक्तियों की संख्या का योग 63 है तथा B में व्यक्तियों की संख्या A में व्यक्तियों की संख्या की दुगुनी है, तो x और y के मान हैं-

1. 15, 4
2. 48, 5
3. 51, 7
4. 51, 8
In the question given below, some argument/arguments is/are logical and others are not. Identify the logical argument/arguments.

I. Eating lots of vegetables and fruits increases immunity. I eat lots of vegetables and fruits, so my immunity is high.

II. Eating lots of vegetables and fruits increases immunity. I do not eat vegetables and fruits, so my immunity is low.

III. Eating lots of vegetables and fruits increases immunity. My immunity is low, which means I don’t eat fruits and vegetables.

1. only I
2. I and II
3. I and III
4. II and III

II. नीचे दिए हुए प्रश्न में, कुछ तरीके न्यायसंगत हैं तथा कुछ नहीं हैं। इन न्यायसंगत तरीकों (तकनीकों) की पहचान कीजिये।

I. अधिक सब्जियाँ और फल खाने से प्रतिरक्षा में वृद्धि होती है। में सब्जियाँ और फल अधिक खाता हूँ। इसलिए मेरी प्रतिरक्षा उच्च है।

II. अधिक सब्जियाँ और फल खाने से प्रतिरक्षा में वृद्धि होती है। में सब्जियाँ और फल नहीं खाता।

III. अधिक सब्जियाँ और फल खाने से प्रतिरक्षा में वृद्धि होती है। मेरी प्रतिरक्षा कम है।

1. केवल I
2. I और II
3. I और III
4. II और III

III. नीचे दिए गए चित्र का अध्ययन करिे:

Which of the following alternatives should replace the question mark?

1. 
2. 
3. 
4. 

नीचे दिए गए विकल्पों में कौन-सा विकल्प उपर्युक्त प्रश्नवाचक चिह के स्थान पर होना चाहिए?
14. Find out the water image of
AVPU7 4 3 6
1. 4
2. 5
3. 4
4. 3

15. A man goes on trek from the bottom to the top of a mountain. He starts at 6 am of 15th October, 2017 from the bottom and reaches the top at 6 pm of the same day. On 16th October, 2017 he starts from the top at 6 am and goes back following exactly the same route and reaches the bottom at 6 pm. Based on the above situation, the following possibilities are to be analysed.
I. It is not possible to find a point on the route which he will cross at the same time each day.
II. It is possible to find a point on the route which he will cross at the same time each day provided only if he travels on each day with equal uniform speed.
III. It is always possible to find a point on the route which he will cross at the same time each day irrespective of his speed of travel.
1. Only I is true.
2. Only II is true.
3. Only III is true.
4. Both I and II are true.

16. At noon and at midnight the long and short hands of a clock are together. Between noon and midnight, how many times the long hand overtakes the short hand?
1. 9
2. 10
3. 11
4. 12
17. If MENTAL: SMXFOB then ABILITY: ________
   1. GJSXWJQ
   2. GSXWJQ
   3. SGXWJQ
   4. SJXQJWG

18. As JAISALMER is to JAILSARME, as HYDERABAD is to ________
   1. HYDAERDBA
   2. HYDRBEDAA
   3. HYDBDREA
   4. HYDEADRAB

19. Which of the following alternatives will fit in the place of ‘?’?
   AZ, GT, MN, ? , YB
   1. KF
   2. RX
   3. SH
   4. TS

20. Look at this series:
    J14, L16, ___, P20, R22
    Which of the following alternatives will fit in the blank space?
   1. N18
   2. S24
   3. M18
   4. T24

21. What will be the missing term in the given sequence?
    ACC, ___, CEO, DFX
   1. BDD
   2. BDE
   3. BDH
   4. BED
22. Which number comes in place of ‘?’?
64, 57, 66, 55, ?, 52
1. 68
2. 69
3. 70
4. 71

23. Select the suitable figure from the given alternatives to complete the figure.

24. Arrange the given words in a meaningful sequence and find the correct sequence from the given options:
A) Wall B) Clay C) House D) Room E) Bricks
1. E, B, A, D, C
2. B, E, D, A, C
3. B, E, A, D, C
4. A, B, C, D, E
25. Identify the figure that completes the pattern.

26. Replace '?' by the appropriate figure from the given options.
27. When a square shaped transparent sheet with the pattern shown in the figure is folded along the dotted line which pattern would appear?

28. Fact 1: All monkeys like to jump.
Fact 2: Some monkeys like to swim.
Fact 3: Some monkeys look like their masters.
If the first three statements are facts, which of the following statements must also be a fact(s)?
I. All monkeys who like to swim look like their masters.
II. Monkeys who like to swim also like to jump.
III. Monkeys who like to jump do not look like their masters.

1. I only
2. II only
3. II and III
4. Both I and II

27. जब आकृति में दर्शाए गए पैटर्न वाले एक वर्गाकार पारदर्शक कागज को विंदु-रेखा से संपादित किया जाता है, तब कौन-सा पैटर्न प्रकट होगा?

28. तथ्य 1: सभी बंदर कूदना पसंद करते हैं।
तथ्य 2: कुछ बंदर तैरना पसंद करते हैं।
तथ्य 3: कुछ बंदर अपने मालिकों जैसे दिखते हैं।
यदि उपरोक्त सभी तीनों कथन सत्य हैं, तो निम्नलिखित में से कौन-सा (से) कथन सत्य होगा/होगी?
I. वे सभी बंदर जो तैरना पसंद करते हैं, अपने मालिकों जैसे दिखते हैं।
II. बंदर जो तैरना पसंद करते हैं, कूदना भी पसंद करते हैं।
III. बंदर जो कूदना पसंद करते हैं, अपने मालिकों जैसे नहीं दिखते हैं।
1. केवल I
2. केवल II
3. II और III
4. दोनों I और II
29. Given below is a statement followed by two assumptions.
The population below poverty line has increased in urban area during the last year.
Assumptions:
I. The population below poverty line has decreased in rural area.
II. The population below poverty line has not increased during the current year.

Which of the assumptions is implicit in the statement?
1. Only I is implicit.
2. Only II is implicit.
3. Either I or II is implicit.
4. Neither I nor II is implicit.

30. Identify the conclusion(s) which logically follow(s) from the given statements:
A. Some men are educated.
B. Educated men prefer small families.

Conclusions:
I. All small families are educated.
II. Some men prefer small families.

1. Only conclusion I follows
2. Only conclusion II follows
3. Both I and II follow
4. Neither I nor II follows

29. नीचे एक कथन दिया है तथा उसके बारे कल्पनाएँ दी गई हैं।
मिले वर्ष के दौरान शहरी क्षेत्र में गरीबी रेखा नीचे की जनसंख्या में वृद्धि हुई है:
कल्पनाएँ:
I. ग्रामीण क्षेत्र में गरीबी रेखा के नीचे जनसंख्या में कमी हुई है।
II. वर्तमान वर्ष के दौरान गरीबी रेखा के नीचे जनसंख्या में वृद्धि नहीं हुई है।
उपरुपक्ष कथन में कौन-सी कल्पना निहित है?
1. केवल I निहित है।
2. केवल II निहित है।
3. या तो I या II निहित है।
4. न तो I और न ही II निहित है।

30. उस (उन) निष्कर्ष (याँ) की पहचान कीजिए, जिने गए कथनों से तार्किक रूप से प्राप्त होते हैं:
A. कुछ पुरुष शिक्षित हैं।
B. शिक्षित पुरुष छोटे परिवार पसंद करते हैं।

निष्कर्ष
I. सभी छोटे परिवार शिक्षित हैं।
II. कुछ पुरुष छोटे परिवार पसंद करते हैं।

1. केवल निष्कर्ष I प्राप्त होता है।
2. केवल निष्कर्ष II प्राप्त होता है।
3. I और II दोनों प्राप्त होते हैं।
4. न तो I और न ही II प्राप्त होता है।
31. A watch is showing right time at 9 pm. This watch gains 10 minutes in every 24 hours. What will be the time shown next day by the watch when the correct time is 2am?

1. 02:00:24 am  
2. 02:00:48 am  
3. 02:02:05 am  
4. 02:02:30 am

32. In a school, students are offered subjects in such a manner that they have to choose at least one subject from History and Geography. Accordingly:
All students who study History also study Geography logically implies:

I. There are no students who study Geography and do not study History.
II. There are no students who study History and do not study Geography.
III. There are no students who do not study History and do not study Geography.
IV. All students who do not study Geography are students who study History.

1. I and II  
2. I and III  
3. II and III  
4. II and IV
33. In a city, all the roads are either parallel to the East-West or North-South direction. Every $\frac{1}{8}$th of a kilometre from each road there is a crossing and the square area covered between four crossings is called a block. Starting from a crossing, if I travel four blocks north, take left and then travel three blocks west, I reach another crossing. What is the distance between these two crossings?

1. 5 km
2. 7 km
3. $\frac{7}{8}$ km
4. $\frac{5}{8}$ km

34. How many minimum right turns will you take to reach school from home?

1. 7
2. 8
3. 9
4. 10
35. The figure shows the Gender, Marital Status and Profession (GMP) of a number of people. Each shape shows a different GMP.

Circle indicates total population, trapezium is males, pentagon is married, rectangle is teachers, and triangle is doctors.

What do the shaded regions represent in the diagram?

1. married males who are teachers
2. unmarried males who are doctors
3. unmarried females who are doctors
4. married males who are neither doctors nor teachers

35. नीचे दी गई आकृति कुछ व्यक्तियों के लिए, वैवाहिक स्थिति और व्यवसाय (GMP) को दर्शाती है। प्रत्येक आकार एक भिन्न GMP दर्शाता है।

वृत्त कुल जनसंख्या, समलंब पुरुषों, पंचभुज विवाहितों, आयुर्विज्ञान और त्रिभुज डॉक्टरों को प्रदर्शित करता है।

इस आकृति में छायांकित क्षेत्र क्या निरुपित करता है?

1. विवाहित पुरुष जो अश्यापक हैं।
2. अविवाहित पुरुष जो डॉक्टर हैं।
3. अविवाहित महिलाएं जो डॉक्टर हैं।
4. विवाहित पुरुष जो न तो डॉक्टर और न ही अश्यापक हैं।
Directions (Questions 36-38)
Each of integers 1 to 26 is represented in the Venn diagram in the appropriate regions P to W where region K represents integers from 1 to 26.
I represents even integers from 1 to 26.
II represents perfect square integers from 1 to 26.
III represents prime numbers from 1 to 26.
W represents numbers from 1 to 26 other than those in I, II and III.

36. Which region contains exactly two integers?
1. P and W only
2. R and U only
3. S and W only
4. U and W only

37. The total number of integers in S and R is equal to the number of integers in
1. P only
2. T only
3. V only
4. W only

36. किस क्षेत्र में तीन दो पूर्णक सम्मिलित है?
1. केवल P और W
2. केवल R और U
3. केवल S और W
4. केवल U और W

37. S और R में पूर्णकों की कुल संख्या निम्नलिखित में पूर्णकों की संख्या के बराबर है
1. केवल P
2. केवल T
3. केवल V
4. केवल W
38. Which region contains exactly eight integers?
1. P
2. Q
3. R
4. S

39. In a school, commerce and arts subjects were offered. Some students opted only for commerce and some only arts. There were science students also who did not choose any of these subjects. The rest of them accepted both commerce and arts. Which one of the following Venn diagram correctly reflects this situation?

40. A person walked 100m straight from the point 'A' in the North-East direction, walked 200m in South-West direction from there, 100m in North-East direction again, walked 100m eastward, 200m southward and 100m westward to reach at the point 'B'. Choose the right answer from the following to find out his/her distance and direction from 'A'.
1. 100m, North
2. 100m, South
3. 200m, North
4. 200m, South

38. किस क्षेत्र में तीन आठ पूर्णख हैं?
1. P
2. Q
3. R
4. S

39. किसी स्कूल में, वाणिज्य और कला विषयों को पढ़ाया जाता है। कुछ विद्यार्थियों ने केवल वाणिज्य को पढ़ाया लेकिन कुछ ने केवल कला को पढ़ाया। कुछ विद्यार्थी ने विषयों के विषय करने के भी भागीदार थे, जिनके इनमें से किसी भी विषय को नहीं पढ़ाया। शेष ने दोनों विषयों,वाणिज्य और कला को स्वीकार कर दिया। उस स्थिति को कौन-सा वें आरेख सही रूप से प्रदर्शित करता है?

40. एक और बिंदु A से सीधे उत्तर-पूर्व दिशा में 100m चलता है, वहाँ से 200m दक्षिण-पश्चिम दिशा में चलता है, पुनः उत्तर-पूर्व दिशा में 100m चलता है, पूर्व की ओर 100m चलता है, 200m दक्षिण की ओर चलता है तथा पश्चिम की ओर 100m चलकर बिंदु B पर पहुंचता है। A से उसकी दूरी और दिशा बताने के लिए निम्नलिखित में से सही उत्तर चुनिए
1. 100m, उत्तर
2. 100m, दक्षिण
3. 200m, उत्तर
4. 200m, दक्षिण
Directions (Questions 41-44)

Items 41-44, each contains a question of two statements I and II, giving certain data. Select the correct answer from (1) to (4) depending on the sufficiency of data given in the statements to answer each question.

(1) If I alone is sufficient and II alone is not sufficient to answer the question.
(2) If II alone is sufficient and I alone is not sufficient to answer the question.
(3) If both I and II together are sufficient but neither statement alone is sufficient to answer the question.
(4) If both I and II together are not sufficient to answer the question and additional data specific to the question are needed.

41. A, B and C have money with them in the ratio 5:3:1. How much money does B have?
   I. A has ₹ 60 more than C
   II. The money with B is 40% less than the money with A.

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

42. What is the cost of each pen?
   I. The cost of 6 pens and 5 pencils is ₹30.
   II. If the cost of each pen and each pencil is reduced by 40%, then the cost of 12 pens and 10 pencils will be ₹36.

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

41. A, B and C have money with them in the ratio 5:3:1. How much money does B have?
   B के पास कितना धन है?

   I. A के पास C से ₹ 60 अधिक है।
   II. B का धन A के धन से 40% कम है।

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

42. प्रत्येक पेन का मूल्य क्या है?

   I. 6 पेनों और 5 पेंसिलों का मूल्य ₹ 30 है।
   II. यदि प्रत्येक पेन और प्रत्येक खरीदों के मूल्य में 40% की कमी की जाती है, तो 12 पेनों और 10 पेंसिलों का मूल्य ₹ 36 होगा।

1. (1)  
2. (2)  
3. (3)  
4. (4)
43. What is the ratio of savings of A and B?
   I. The ratio of income of A and B is 5 : 6
   II. The ratio of expenditure of A and B is 3 : 4
   1. (1)
   2. (2)
   3. (3)
   4. (4)

44. What is the ratio of the selling prices of two articles A and B?
   I. The cost price of article A is equal to the selling price of B.
   II. The profit made by selling A is equal to 1/5 of its selling price.
   1. (1)
   2. (2)
   3. (3)
   4. (4)

45. If in a code language STAR = 50 and CIRUS = 65 then PLANET will be
   1. 68
   2. 78
   3. 84
   4. 94

46. Pankaja puts her alarm clock on the table in such a way that at 6 pm the hour hand points to North. In which direction will the minute hand point at 9:15 pm?
   1. South-East
   2. South
   3. North
   4. West

43. और B की वृद्धि का अनुपात क्या है?
   I. A और B की आय का अनुपात 5 : 6 है।
   II. A और B के व्यय का अनुपात 3 : 4 है।
   1. (1)
   2. (2)
   3. (3)
   4. (4)

44. दो वस्तुओं A और B के विक्रय मूल्यों का क्या अनुपात है?
   I. वस्तु A का क्रय मूल्य B के विक्रय मूल्य के बराबर है।
   II. A को बेचने पर ग्राहक लाभ, इसके विक्रय मूल्य के 1/5 के बराबर है।
   1. (1)
   2. (2)
   3. (3)
   4. (4)

45. अगर किसी कूट भाषा में STAR = 50 और CIRUS = 65 तब PLANET होगा-?
   1. 68
   2. 78
   3. 84
   4. 94

46. पंकजा ने अपनी बड़ी मेंज पर साय 6 बजे इस प्रकार रखी कि घंटे की सूई उत्तर की ओर इंगित करती है। रात्रि 9:15 बजे बिनते की सूई किस दिशा में इंगित करेगी?
   1. दक्षिण-पूर्व
   2. दक्षिण
   3. उत्तर
   4. पश्चिम
47. One evening before sunset two friends Rajni and Sanjiv were talking face to face. If Sanjiv’s shadow was exactly to his right side, to which direction Rajni was facing?

1. North
2. North East
3. South
4. South East

48. The square boxes in the figures below are to be painted with different colours such that no two adjacent boxes (even diagonally) have same colour. How many minimum colours do you need in each case?

![Figure with boxes and numbers]

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

49. What is the number in place of ‘?’?

2Y23, 3V19, 5V17, 7T13, 11V11, __?

1. 13T7
2. 13V9
3. 13W9
4. 13U7

50. Identify which number does not fit in the sequence?

156, 182, 210, 240, 282, 306

1. 182
2. 210
3. 282
4. 306

51. What is the number in place of ‘?’?

2Y23, 3V19, 5V17, 7T13, 11V11, __?

1. 13T7
2. 13V9
3. 13W9
4. 13U7
51. What is the number in place of '?'?
6, 15, 35, 2, 143, 221
1. 45
2. 65
3. 77
4. 93

52. A pattern is being followed to derive numbers using two out of the six numbers appearing on the faces of a dice having numbers from 4 to 9, both inclusive. Two such pair yield 106 and 52. What will the third pairs yield?

53. Which group of letter, given in the alternatives will complete the sequence?
\[ \text{a}_\text{nttt}_\text{t}_\text{ata}_\text{nt}_\text{tan} \]

1. atntt
2. nnttat
3. nanttt
4. tnttat

51. '?' के स्थान पर क्या संख्या है?
6, 15, 35, 2, 143, 221
1. 45
2. 65
3. 77
4. 93

52. एक पासे के फलकों पर अन्तिम छह संख्याओं 4 से 9 में से दो-दो संख्याएं लेकर एक पैटर्न द्वारा संख्याएं बनाई जाती हैं (4 और 9 सम्मिलित हैं)। ऐसे दो पासे से 106 और 52 प्राप्त होता है। तीसरे पासे से क्या प्राप्त होगा?

53. विकल्पों में दिए अक्षरों के समूहों में से कौन-सा समूह निम्नलिखित आनुक्रम को पूरा करेगा?
\[ \text{a}_\text{nttt}_\text{t}_\text{ata}_\text{nt}_\text{tan} \]

1. atntt
2. nnttat
3. nanttt
4. tnttat
Directions (Questions 54-57)
A group of students is sitting in such a way that each occupies a corner of a hexagonal table. Ninong is sitting opposite to Yaangba, Ribiya is sitting next to Silva, Nazeli is sitting opposite to Silva, but not next to Ninong. one person is sitting between Talyang and Yaangba.

54. Who is sitting opposite to Ribiya?
   1. Yaangba
   2. Silva
   3. Talyang
   4. Nazeli

55. Who is sitting between Ribiya and Ninong?
   1. Yaangba
   2. Nazeli
   3. Talyang
   4. Silva

56. Who is sitting between Talyang and Yaangba?
   1. Nazeli
   2. Ribiya
   3. Ninong
   4. Silva

57. If Talyang sits to the right of Ninong, who is on the left of Ninong?
   1. Ribiya
   2. Nazeli
   3. Yaangba
   4. Silva

निर्देश (प्रश्न 54-57)
विद्यार्थियों का एक समूह इस प्रकार बैठा हुआ है कि प्रत्येक एक चतुर्भुज के एक कोने पर बैठा है। निनोंग यांगबा के सम्मुख बैठा है। रिबिया यांगबा के सम्मुख बैठी है। नाज़ली सिल्वा रिबिया, सिल्वा के आगे बैठी है। नाज़ली सिल्वा के सम्मुख बैठी है, परंतु निनोंग से आगे नहीं है।

54. रिबिया के सम्मुख कौन बैठा हुआ है?
   1. यांगबा
   2. सिल्वा
   3. ताल्यांग
   4. नाज़ली

55. रिबिया और निनोंग के बीच में कौन बैठा हुआ है?
   1. यांगबा
   2. नाज़ली
   3. ताल्यांग
   4. सिल्वा

56. ताल्यांग और यांगबा के बीच कौन बैठा हुआ है?
   1. नाज़ली
   2. रिबिया
   3. निनोंग
   4. सिल्वा

57. यदि ताल्यांग निनोंग के बाईं ओर बैठा है, तो निनोंग के बाईं ओर कौन बैठा है?
   1. रिबिया
   2. नाज़ली
   3. यांगबा
   4. सिल्वा
58. A cylinder is painted in 6 colours - Violet, Red, Blue, Green, Yellow and Orange. The three positions of the cylinder are as follows. Looking at these figures, identify the correct colour in place of '?':

1. Red
2. Blue
3. Green
4. Violet

58. किसी चैंडल को 6 रंगों में पेंट किया जाता है - विलेट, लाल, नीला, हरा, पीला और नारंगी। चैंडल की तीन विषयिताओं नीचे दी गई हैं। इन नियमों को देखकर नीचे ' ? ' के स्थान पर सही रंग की पहचान करें।

1. लाल
2. नीला
3. हरा
4. ब्रिज्गो

59. Find the missing number at the place of 'M'?  

![Diagram of numbers](image)

1. 36
2. 52
3. 81
4. 117

59. 'M' के स्थान पर विलुप्त संख्या लिखें।

60. Which letter replaces the question mark (?)?

![Diagram of letters](image)

1. A
2. E
3. H
4. M

60. प्रश्न चिह्न (?) के बदले कौन-सा अक्षर आएगा?
61. Which letter replaces the question mark (?)?

1. M
2. O
3. P
4. Q

62. What is the number that should come in place of 'M'?

1. 2
2. 3
3. 4
4. 6
63. In the given figure which number should replace 'M'?

1. 4
2. 11
3. 13
4. 19

64. Manushi remembers that birthday of Chaitra is after July 10 but before July 17, but Vishakha remembers that it is between 15 and 27 July, both inclusive. If July 10 was a Thursday and if both of them remember correctly then on which day was Chaitra's birthday?

1. Sunday
2. Monday
3. Tuesday
4. Wednesday

65. A family consists of six members P, Q, R, X, Y, Z.
Q is the son of R but R is not mother of Q.
P and R are a married couple.
Y is the brother of R. X is the daughter of P.
Z is the brother of Q.
Which symbol represents all the children of P?

1. QXYZ
2. QXZ
3. XZR
4. QZ

66. A matrix is given below:

\[
\begin{bmatrix}
11 & 18 \\
15 & 24
\end{bmatrix}
\]

(15, 16) 25

64. मान की यह याद है कि चैत्र का जन्मदिन जुलाई 10 के बाद पर्वत जुलाई 17 से पहले है। पर्वत विशाखा का याद है कि यह 15 और 27 जुलाई के बीच में है (दोनों दिन सम्मिलित हैं)। यदि दोनों को पहल सही याद है और जुलाई 10 को बृहस्पतिवार था, तो चैत्र का जन्म किस दिन हुआ था?

1. रविवार
2. सोमवार
3. मंगलवार
4. बुधवार

65. किसी परिवार में छह सदस्य P, Q, R, X, Y, Z हैं। R का पुत्र Q है। पर्वत Q का माता R नहीं है। P और R विवाहित रहते हैं। R का भाई Y है। P की पत्नी X है। Q का भाई Z है। कोन-सा विकल्प P के सभी बच्चों को निरूपित करता है?

1. QXYZ
2. QXZ
3. XZR
4. QZ
66. I noticed that my watch goes $\frac{1}{2}$ minute fast at dusk, but at dawn it loses $\frac{1}{3}$ minute. On 1st March morning my watch showed right time, then on which of the following dates the watch was 5 minutes fast?

1. 28th March
2. 29th March
3. 30th March
4. 31st March

67. What is the length 'x' of the line segment CD in the triangle drawn below?

68. If $m+n = o+p$,
   
   \[ m + q = p + n, \]
   
   \[ 2p < m + q \text{ and } 2m > o + n, \text{ then} \]

1. $o > m > n > p > q$
2. $m > o > p > n > q$
3. $n > o > p > m > q$
4. $o > p > n > q > m$

66. मैंने देखा कि मेरी घड़ी रात्रि में $\frac{1}{2}$ मिनट जाती है परंतु सुबह $\frac{1}{3}$ मिनट कम हो रही है। यदि 1 मार्च को सुबह मेरी घड़ी सही समय देती, तो निम्नलिखित में से किस दिनांक को मिनट आगे थी?

1. 28 मार्च
2. 29 मार्च
3. 30 मार्च
4. 31 मार्च

67. नीचे दिए गए त्रिभुज में, रेखाखंड CD की 'x' क्या मान है?

68. यदि $m+n = o+p$,
   
   \[ m + q = p + n, \]
   
   \[ 2p < m + q \text{ और } 2m > o + n \text{ है}, \text{ तो} \]

1. $o > m > n > p > q$
2. $m > o > p > n > q$
3. $n > o > p > m > q$
4. $o > p > n > q > m$
69. If water image of OXIDE is OXIDE, then water image of METAL will be

1. LATIHM
2. MELAG
3. METAL
4. METAL

70. How many dots lie opposite the face having three dots, when the given figure is folded to form a cube?

1. 2
2. 4
3. 5
4. 6

71. If *' is ‘+’, ‘X’ is ‘−’, ‘−’ is ‘×’ and ‘+’ is ‘÷’ then what is the value of
\[20 + 4 \times 12 - 6 + 11\]

1. 2
2. 5
3. 56
4. 65

\[\frac{20 + 4 - 12}{6 \times 11}\]
72. Six dice are stacked as shown in the figure. On each dice, the sum of number appearing on a face and on the face opposite to it is 7.

What is the maximum possible sum of the numbers on the visible faces?

1. 88
2. 89
3. 96
4. 147

73. Observe the sequence given below and select the appropriate alternative which will maintain the series.

1. ?
2. ?
3. ?
4. ?

29
74. Two positions of a dice are shown. When number 3 is on the top, what number will be at the bottom?

![Dice Diagram]

1. 1 but not 4
2. 4 but not 1
3. 5 or 4
4. 5 but not 4

75. Which interchange in signs and number would make the equation correct? (96 ÷ 128) + 64 = 2

1. + and ÷, 64 and 96
2. + and ÷, 64 and 128
3. + and ÷, 96 and 128
4. + and ÷, 94 and 128

76. Let "%" stands for "is equal to", "?" for "greater than", "#" for "less than".

If 6x% 5y and 2y?3z, then

1. 2x ? 3z
2. 4x ? 5z
3. 2x # z
4. 4x % 3z

77. If Q means 'addition sign', J means 'multiplication sign', T means 'subtraction sign' and K means 'division sign' then, 30 K 2 Q 3 J 6 T 5 = ?

Find the number in place of '?'.

1. 18
2. 28
3. 31
4. 103

6x is equal to 5y

2y > 3z

78. The value of x is 5, y = 6, z = 3.
78. Which figure should come next among the options given below?

1.  
2.  
3.  

79. Observe the trends in figures given below and find the missing character.

1.  
2.  
3.  

78. नीचे दिए हुए विकल्पों में से कौन-सी आकृति आगे आएगी?

79. नीचे दी हुई आकृतियों में प्रवृति देखिए तथा विलुप्त चिह्न को खोजिए।
80.

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<td>Signs</td>
<td>+</td>
<td>-</td>
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<td></td>
<td>←</td>
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<td></td>
<td>→</td>
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</tbody>
</table>

\[
3 \times 8 \div 4 + 2 - 5 = (\underbrace{7 + 12 - 1}) - 6
\]

\[
3 \uparrow 8 \downarrow 4 \rightarrow 2 \leftarrow 5 \underbrace{7 \rightarrow 12 \leftarrow 1} \ ? ? 6
\]

What will come in place of "??"?

1. ?↓
2. ?↑
3. ?↑
4. ?↓

81. Complete the missing pattern.

1. 

2. 

3. 

4. 

80.

<table>
<thead>
<tr>
<th>समतुल्य</th>
</tr>
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<tbody>
<tr>
<td>चिह्न</td>
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\[
3 \times 8 \div 4 + 2 - 5 = (\underbrace{7 + 12 - 1}) - 6
\]

'??' के स्थान पर क्या आएगा?

1. ?↓
2. ?↑
3. ?↑
4. ?↓

81. विकृत पैटर्न को पूरा कीजिए।
82. Find the number of rectangles in the following figure

1. 18
2. 17
3. 16
4. 15

83. In the given matrix, first row and the first column consist of symbols and numbers respectively, the combination of those would be the code for specific alphabets given in other cells. For example, the code for 'G' could be 1$ or 2@. In the same manner, what from the given alternatives will be the correct code for "PEACE"?

<p>| | | | |</p>
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<td>A</td>
<td>P</td>
<td>Q</td>
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<tr>
<td>1</td>
<td>T</td>
<td>P</td>
<td>S</td>
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<td>C</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>J</td>
<td>R</td>
<td>P</td>
</tr>
</tbody>
</table>
84. A square sheet is folded into half; the line of folding being parallel to a side of the square. It is again folded into half, the line of folding being parallel to the shorter side. In this condition the front of the paper always appears as it is given in the figure below (the dotted lines represent the folded portions).

From the alternatives choose the correct figure which represents the paper in its original unfolded form.

1. 

2. 

3. 

85. A, B, C, D, E, F, G, H are each to be assigned a different number from 1 to 8. What should be values of B, D, E, F, and G so that no consecutive numbers are in adjacent (even diagonally) squares.

Given: A = 5, C = 2, H = 4

1. (6, 8, 1, 7, 3) ✗
2. (3, 8, 7, 1, 6) ✗
3. (8, 6, 3, 7, 1) ✗
4. (3, 8, 1, 7, 6) ✗
86. In a farmhouse there are 50 hens, 45 goats and 8 camels which are maintained by a few supervisors. If the total number of feet be 224 more than the number of heads in the farmhouse, then the total number of supervisors is

1. 5
2. 8
3. 10
4. 15

87. If in a coded language, ‘Busy bees’ are coded as ‘Cpu cff’, ‘busy crows’ are coded as ‘cpu hup’, ‘Bright Crows’ are coded as ‘Csj Hup’. Then, ‘Busy crows are clever’ will be coded as

1. Cpu Hup Bsf Dmf
2. Cpu hup bsf dmf
3. cpu Hup Bsf Dmf
4. cpu hup bsf Dmf

88. What is the code used for ‘Blue’ derived from the given coded statements as per a code language?

I. ‘Flower Blue Red White’ is coded as ‘Sa Ra Ga Ma’
II. ‘Take Red Pink Flower’ is coded as ‘Sa Ha Ma Pa’
III. ‘Take Blue Red Buds’ is coded as ‘Pa Da Ma Ga’
IV. ‘Bring Red Take White’ is coded as ‘Ma Na Pa Ra’

1. Sa
2. Ga
3. Pa
4. Ra

88. एक कूट भाषा के अनुसार नोंद हिंदे कथनों से निगमित ‘Blue’ के लिए किस कूट का प्रयोग होगा?

I. ‘Flower Blue Red White’ को ‘Sa Ra Ga Ma’ लिखा जाता है
II. ‘Take Red Pink Flower’ को ‘Sa Ha Ma Pa’ लिखा जाता है
III. ‘Take Blue Red Buds’ को ‘Pa Da Ma Ga’ लिखा जाता है
IV. ‘Bring Red Take White’ को ‘Ma Na Pa Ra’ लिखा जाता है

1. Sa
2. Ga
3. Pa
4. Ra

\[10^3 + n + 224 = 222 + 2n\]

\[327 - 222 = 5\]
89. What will be the number of digits used in numbering the pages of a book having 199 pages?
1. 398
2. 489
3. 495
4. 532

90. In certain code 678 means 'study very hard', 347 means 'hard work pays' and 246 means 'study and work'. Which of the following is the code for 'very'?
1. 4
2. 6
3. 7
4. 8

91. In a certain code 'TOME' is written as '@ $ * ? !' and 'ARE' is written as '@ & ?'. How can 'REMOTE' be written in that code?
1. & ? ! $ @ ? !
2. & ? * $ @ ?
3. $ ? $ @ ?
4. * @ $ * ? !

92. If in a certain code
23 × 26 = 42 and,
11 × 15 = 19
then,
32 × 16 = ?
1. 40
2. 41
3. 44
4. 48

93. 199 पृष्ठों की एक पुस्तक के पृष्ठों पर क्रमांक लिखने के लिए, प्रयुक्त संख्याओं की कुल संख्या क्या होगी?
1. 398
2. 489
3. 495
4. 532

94. किसी कूट भाषा में 678 का अर्थ 'study very hard', 347 का अर्थ 'hard work pays' और 246 का अर्थ 'study and work'. 'very' के लिए, निम्नलिखित में से कौन-सा कोड होगा?
1. 4
2. 6
3. 7
4. 8

95. किसी कूट भाषा में 'TOME' को '@ $ * ?!' लिखा जाता है तथा 'ARE' को '@ & ?' से लिखा जाता है इस कूट भाषा में 'REMOTE' को किस प्रकार लिखा जाता है?
1. & ? ! $ @ ?
2. & ? * $ @ ?
3. $ ? $ @ ?
4. * @ $ * ? !

96. यदि किसी कूट भाषा में 23 × 26 = 42 है और 11 × 15 = 19 है, तो 32 × 16 = ? है
1. 40
2. 41
3. 44
4. 48
93. In a family of 6 (A, B, C, D, E and F) members, there is one married couple with equal number of male and female members. Read the following relations and find out the one from the alternatives, which is not true for the given family.

**Relations :-**
A and E are sons of F.
D is the mother of a boy and a girl.
B is the son of A.
1. A, E, B are males
2. C is the granddaughter of F
3. C is the daughter of E
4. D is the wife of A

94. If P+Q means P is husband of Q, P/Q means P is sister of Q, P*Q means P is the son of Q. How is D related to A in D*B+C/A?
1. Son
2. Nephew
3. Sister
4. Couple

95. Afsana was walking in a desert. Anwar was passing by riding on a camel. Afsana requested for a lift.
Anwar said he will give lift only to those who are related to him.
At this, Afsana told him that Anwar’s mother-in-law is the mother of her mother-in-law.
How is Anwar related to Afsana?
1. Father
2. Maternal uncle
3. Brother-in-law
4. Father-in-law

96. The relations (A, B, C, D, E and F) will be taken in a particular order. Read the following relations and find out the one from the alternatives, which is not true for the given family.

**Relations :-**
A and E are sons of F.
D is the mother of a boy and a girl.
B is the son of A.
1. A, E, B are males
2. C is the granddaughter of F
3. C is the daughter of E
4. D is the wife of A

97. If P+Q means P is husband of Q, P/Q means P is sister of Q, P*Q means P is the son of Q. How is D related to A in D*B+C/A?
1. Son
2. Nephew
3. Sister
4. Couple

98. Afsana was walking in a desert. Anwar was passing by riding on a camel. Afsana requested for a lift.
Anwar said he will give lift only to those who are related to him.
At this, Afsana told him that Anwar’s mother-in-law is the mother of her mother-in-law.
How is Anwar related to Afsana?
1. Father
2. Maternal uncle
3. Brother-in-law
4. Father-in-law

99. The relations (A, B, C, D, E and F) will be taken in a particular order. Read the following relations and find out the one from the alternatives, which is not true for the given family.

**Relations :-**
A and E are sons of F.
D is the mother of a boy and a girl.
B is the son of A.
1. A, E, B are males
2. C is the granddaughter of F
3. C is the daughter of E
4. D is the wife of A

100. If P+Q means P is husband of Q, P/Q means P is sister of Q, P*Q means P is the son of Q. How is D related to A in D*B+C/A?
1. Son
2. Nephew
3. Sister
4. Couple

101. Afsana was walking in a desert. Anwar was passing by riding on a camel. Afsana requested for a lift.
Anwar said he will give lift only to those who are related to him.
At this, Afsana told him that Anwar’s mother-in-law is the mother of her mother-in-law.
How is Anwar related to Afsana?
1. Father
2. Maternal uncle
3. Brother-in-law
4. Father-in-law
96. A person travels from Mumbai to Ahmedabad by car in 5 hours. The speed of the car during first hour of journey was 60 km/hr. For the next two hours speed was 80 km/hr. Next hour it was 100 km/hr. Finally, during the last hour of his journey he drove at 40 km/hr. What is the average speed during his journey?

1. 56 km/hr.
2. 67.4 km/hr.
3. 70 km/hr.
4. 72 km/hr.

Directions for (Questions 97-98)

Study the pie chart and information given below and answer the following questions.

There are 1150 students of a school opted sports as a hobby.

97. How many students have book reading as a hobby?

1. 390
2. 420
3. 440
4. 450

98. What is the total number of students in the school?

1. 4990
2. 5000
3. 5050
4. 5100

96. कोई व्यवहार कार द्वारा मुंबई से अहमदाबाद तक की यात्रा 5 घंटे में लेज़ करता है। यात्रा के पुर्वें घंटे में कार की चाल 60 किमी/घंटा थी। अगले दो घंटे में चाल 80 किमी/घंटा थी। अगले घंटे में यह 100 किमी/घंटा थी। अंतिम घंटे में उसने कार की चाल 40 km/hr रखी। उसकी पूरी यात्रा में औसत चाल क्या है?

1. 56 km/hr.
2. 67.4 km/hr.
3. 70 km/hr.
4. 72 km/hr.

प्रश्नों 97-98 के लिए निर्देश:
नीचे दिए गए पाइथंड को पढ़िए।

पौड़ी (मिठी के बनाने)
5%
पौड़ी (फूड चार्ट)
6%
संगीत
22%
प्रकृति क्लब
14%
संगीत
22%
पुस्तक पढ़ना
9%
खेल
23%
स्कूल के 1150 विद्यार्थी खेलों को अपने सोक (हाथी) के रूप में चुनते हैं।

97. पुस्तक पढ़ना कितने विद्यार्थियों ने चुना?

1. 390
2. 420
3. 440
4. 450

98. स्कूल में विद्यार्थियों की कुल संख्या क्या है?

1. 4990
2. 5000
3. 5050
4. 5100

\[
\frac{23 + n}{100} = \frac{50}{100}
\]

\[n = 7800\]
99. The following table shows the distribution of Boys and Girls students of seven different schools.

<table>
<thead>
<tr>
<th>School</th>
<th>Boys (Total 27,300)</th>
<th>Girls (Total 24,700)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>17%</td>
<td>8%</td>
</tr>
<tr>
<td>B.</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>C.</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>D.</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>E.</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>F.</td>
<td>14%</td>
<td>21%</td>
</tr>
<tr>
<td>G.</td>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>

What is the ratio between the number of Girls and Boys students respectively from school F?
1. 14 : 21
2. 19 : 21
3. 17 : 21
4. 19 : 14

100. Ayush, Hina, Harbhajan and George are student friends studying in Delhi and plan to go on winter holiday some where in India. They can go to Rajasthan, Goa, Kerala, Odisha, Madhya Pradesh or any of the North Eastern States. Ayush is willing to go any where except North Eastern States. Harbhajan prefers not to go to Goa and Kerala. Hina wants to go either to Goa or Odisha. Geoge does not mind as long as it is not Rajasthan. Which destination would be acceptable to all?
1. Goa
2. Odisha
3. Kerala
4. Madhya Pradesh