

राष्ट्रीय प्रतिभा खोज परीक्षा (प्रथम स्तर) 2018
NATIONAL TALENT SEARCH EXAMINATION (FIRST LEVEL) 2018

610 - A

Roll No. रोल नम्बर

Booklet Number पुस्तिका संख्या

110249

MENTAL ABILITY TEST
(For Students of Class X)

Time : 45 Minutes Max. Marks : 50
(For Blind Candidates Time : 1 Hour)

INSTRUCTIONS TO CANDIDATES

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

1. Answers are to be given on a **separate answer sheet (OMR sheet)**.
2. Please write your **Roll Number** as allotted to you in the admission card very clearly on **the test-booklet** and darken the appropriate circles on the **answer sheet** as per instructions given.
3. There are 50 questions in this test. All are compulsory.
4. Please follow the instructions given on the answer sheet for marking the answers.
5. 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.
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 on the given **Blank Pages at the back of the booklet** but not on the answer sheet/loose paper.
8. Every correct answer will be awarded one mark. There will be no negative marking.
9. **Please return the Answer sheet (OMR) only to the invigilator after the test.**
10. Hindi 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.

बौद्धिक योग्यता परीक्षा

(कक्षा X के विद्यार्थियों के लिए)

समय : 45 मिनट पूर्णांक : 50

(दृष्टिहीन अभ्यर्थियों के लिए समय : 1 घंटा)

परीक्षार्थियों के लिए निर्देश

प्रश्न पुस्तिका खोलने से पहले निम्न निर्देशों को ध्यान से पढ़िए।

1. उत्तर एक अलग उत्तर-पत्रक (ओ० एम० आर० शीट) में देने हैं।
2. कृपया अपना रोल नम्बर जैसा कि आपके प्रवेश पत्र पर दिया गया है, निर्देशानुसार टेस्ट पुस्तिका पर बहुत स्पष्ट लिखिये और उत्तर-पत्रक पर दिये गये गोलों को काले करें।
3. इस परीक्षा में 50 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
4. कृपया उत्तर चिह्नित करने के लिए उत्तर-पत्रक पर दिये गये निर्देशों को ध्यान से समझ कर उनकी अनुपालना कीजिए।
5. यदि आप किसी प्रश्न का उत्तर नहीं जानते हैं तो उस पर बहुत समय न गंवाइये और अगले प्रश्न पर बढ़ जाइये। यदि बाद में समय मिले तो जिन प्रश्नों को आपने पहले छोड़ दिया था, उन पर वापस आकर उनके उत्तर दीजिए।
6. क्योंकि इस प्रश्न पत्र के लिए निर्धारित समय बहुत सीमित है, इसलिए इसका अधिकतम उपयोग कीजिये और किसी प्रश्न पर बहुत समय न लगाइये।
7. रफ कार्य पुस्तिका के अंत में दिये गये रिक्त पृष्ठों पर किया जा सकता है किन्तु उत्तर-पत्रक/अलग कागज पर नहीं।
8. प्रत्येक सही उत्तर का एक अंक प्रदान किया जाएगा। इसमें ऋणात्मक अंकन नहीं होगा।
9. कृपया परीक्षा के बाद केवल उत्तर-पत्रक (ओ० एम० आर०) ही निरीक्षक को लौटाइए।
10. अनुवादित विवरण में अन्तर से उठे किसी भी विवाद की स्थिति में प्रश्न-पत्र के हिन्दी अनुवाद को निर्णायक माना जाएगा।

कृपया पृष्ठ पलटिये और अपना कार्य आरम्भ कीजिए।

BSER 2018

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NATIONAL TALENT SEARCH EXAMINATION-2018, RAJASTHAN **MENTAL ABILITY TEST (MAT) PAPER**

Questions (1 – 4)

Direction : In each of the questions 1 to 4 a letter series is given with one term missing shown by question mark (?). This term is one four alternatives given under it. Find the right alternative.

1. G, K, O, S, ?
(1) U (2) W (3) V (4) X
2. DX, HT, KQ, OM, ?
(1) SJ (2) RK (3) QJ (4) RJ
3. H, D, A, Y, X, ?
(1) X (2) W (3) T (4) V
4. KLE, IND, GPC, ?, CTA
(1) DRB (2) BSE (3) ERB (4) ECR

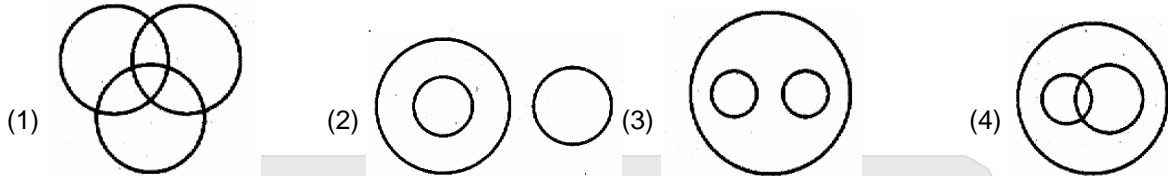
Questions (5 – 8)

Direction : In each of the questions 5 to 8 a number series is given with one term missing shown by question mark (?). This term is one of the four alternatives given under it. Find the right alternative.

5. 4, 9, 25, ?, 121, 169.
(1) 36 (2) 49 (3) 64 (4) 81
6. 1, 3, 7, 13, 21, ?, 43, 57
(1) 31 (2) 29 (3) 30 (4) 32
7. 5, 3, 10, 8, 17, 15, ?, 24
(1) 25 (2) 23 (3) 26 (4) 27
8. 97, 77, 59, ?, 29, 17
(1) 34 (2) 39 (3) 37 (4) 43
9. In the given question there are two statements and they have two conclusions I and II. You have to take the given statements to be true even if they seem to vary to commonly known facts. Read the conclusions and decide which of the given conclusions logically follows from the two given statements even disregarding commonly known facts.
Statements : (I) : All women are intelligent.
(II) : Some women are educated.
Conclusions : (I) : All educated women are intelligent.
(II) : All intelligent are women.
(1) Only conclusion I is true (2) Only conclusion II is true
(3) Both conclusions I and II are true (4) Neither conclusion I nor conclusion II is true.
10. In the given question, a statement is followed by two arguments I and II. You have to decide which of the following arguments is 'strong' or 'weak'.
Statement : Continuous and comprehensive evaluation system should be implemented at school level.
Arguments : (I) Yes, it helps in all-round development of the child.
(II) No, it puts more burden on teachers.
(1) Arguments I and II both are strong
(2) Arguments I and II both are weak
(3) Argument I is strong and II is weak
(4) Argument I is weak and II is strong.

11. In the question given below, a statement is followed by a reason. Choose correct option for them.
 Statement : Narmada river flows to west.
 Reason : Narmada river falls in the Bay of Bengal.
- (1) Statement and reason both are true (2) Statement is true but reason is false
 (3) Statement is false but reason is true (4) Statement and reason both are false.

12. Which of the following Venn diagrams correctly represents Bus, Car and Vehicle ?

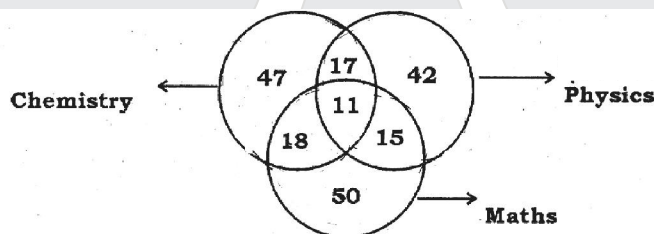


13. Which of the following Venn diagrams correctly represents white colour, clothes and natural flowers ?



Question (14 – 15)

Out of 500 students, the following Venn diagram represents the number of students who got Distinction in Physics, Chemistry and Maths subjects. Answer Q. 14 and Q. 15 based on Venn diagram.



14. How many students got Distinction in both Physics and Maths subjects, **when** the students who got Distinction in Chemistry subject is not included ?
 (1) 26 (2) 15 (3) 28 (4) 24.
15. What is the percentage of students who got Distinction in all the three subjects ?
 (1) 28% (2) 35% (3) 38% (4) 40%.

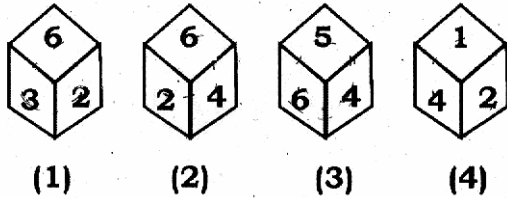
Question (16 – 17)

Direction : In questions 16 and 17 three alternatives are alike in a certain way but the rest one is different. Find out the odd one and write correct answer.

16. (1) Afghanistan (2) Kabul (3) Spain (4) Iraq.
17. (1) 1 (2) 729 (3) 144 (4) 64
18. 'A + B' means A is the son of B. 'A - B' means A is the wife of B. Then what does P + R - Q mean?
 (1) Q is the father of P (2) Q is the son of P (3) P is the father of Q (4) / R is the son of Q.
19. P, Q, R, S and T are sitting around a circular table facing centre to the table. R is just the right to P and is second to the left of S. T is not between P and S. Who is second to the left of R ?
 (1) Q (2) S (3) T (4) P.

20. If ' $<$ ' means ' $-$ ', ' $>$ ' means '+', ' $=$ ' means ' \times ' and ' $\$$ ' means ' \div ' then what will be the value of $27 > 81 \$ 9 < 6$?
 (1) 6 (2) 36 (3) 30 (4) 54.

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



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

23. In a coded language the word 'SOLID' is written as 'HLORW', then in the same code language 'GAS' will be written as
 (1) THZ (2) TYI (3) TZH (4) ZHT.

24. If in a certain code I = 9 and GIRL = 46, then BOY = ?
 (1) 37 (2) 39 (3) 24 (4) 42.

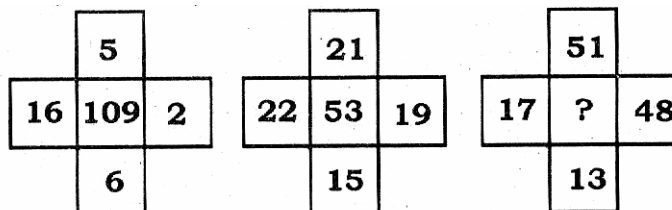
25. If Ranjana is the sister of the- son of Sohan's son, how is Ranjana related to Sohan ?
 (1) Daughter (2) Sister (3) Granddaughter (4) Uncle.

26. If North direction is called East and South direction is called West, then what will be called North-East direction ?
 (1) North East (2) East-South (3) West South (4) North-West

27. How many pairs of successive numbers have a difference of 2 in the following sequence ?
 6, 4, 1, 2, 2, 8, 7, 4, 2, 7, 5, 3, 8, 6, 2, 1, 7, 0, 4, 1, 3, 2, 8, 6
 (1) 4 (2) 5 (3) 6 (4) 7

28. Arrange the following in a meaningful sequence :
 A — Medicine B - Diagnosis C — Doctor D — Fever E — Recovery
 (1) DCABE (2) DECAB (3) DCBAE (4) CDBAE

29. Find the missing number (?) from the given. alternatives, when same rule is applied in all three situations.

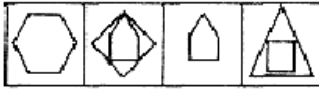


- (1) 7 (2) 25 (3) 49 (4) 129

30. As 'part' is related to 'whole', in the same way an 'Arc' is related to which of the following ?
 (1) Rectangle (2) Circle (3) Triangle (4) Square.

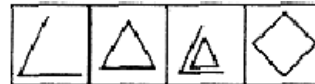
Direction : In question 31 to 34 there are two sets of figure. One set contains problem-figures while the other has answer-figures. There is a sequence according to which the problem-figures are arranged. You have to select an answer-figure which can be added in sequence with the problem-figure. Choose the correct figure.

31. Problem-figures



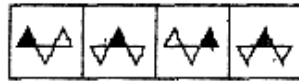
(A) (B) (C) (D)

Answer-figures



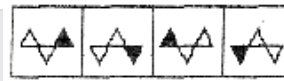
(1) (2) (3) (4)

32. Problem-figures



(A) (B) (C) (D)

Answer-figures



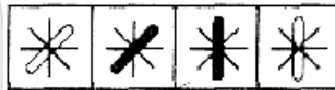
(1) (2) (3) (4)

33. Problem-figures



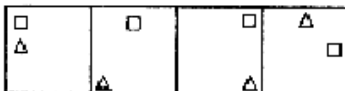
(A) (B) (C) (D)

Answer-figures



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

34. Problem-figures



(A) (B) (C) (D)

Answer-figures

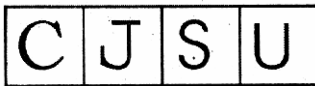


(1) (2) (3) (4)

Questions (35 – 38)

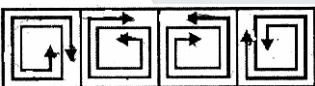
Direction : In questions 35 to 38 there are four figures given in each. One of these does not correlate with the rest of the figures. Select that odd figure.

35.



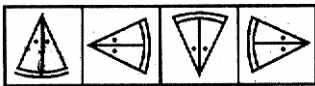
(1) (2) (3) (4)

36.



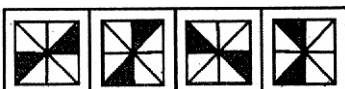
(1) (2) (3) (4)

37.



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

38.



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

Direction : In questions 39 and 40, find the correct mirror image of the given figure, when mirror is placed on right side of the figure.

39. STOP
 (1) **ꠤTOP** (2) **ꠤOTS** (3) **ꠤTOS** (4) **POTS**

40. Question-image Answer – image
- | | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|
- (1) (2) (3) (4)

Direction : In questions 41 and 42 select the correct water image of the given figure.

41. Question-figure
- Answer-figures
- (1) (2) (3) (4)
42. Question figure
 X 7 W 4
 Answer figure
 (A) X 7 M 4 (2) X 7 M 4 (3) X 7 W 4 (4) X 7 M 4

Question (43 – 44)

Direction : A square transparent sheet with a pattern is folded along the dotted line. Which of the following answer figures is formed after folding the transparent sheet ?

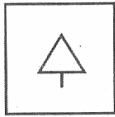
43. Transparent sheet
- Answer -figures
- (1) (2) (3) (4)

44. Transparent sheet
- Answer-figures
- (1) (2) (3) (4)

Questions (45 – 46)

Direction : In the following figures there is a question figure, which is embedded in one of the answer-figures. Trace out the correct figure.

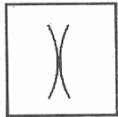
45. Question-figure



Answer-figures



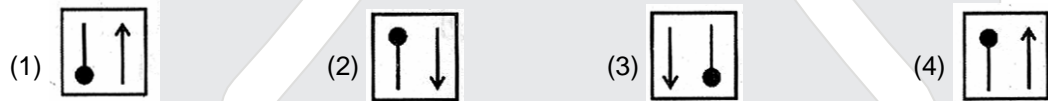
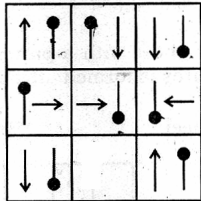
46. Question-figure



Answer-figures

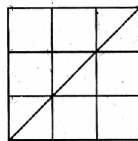


47. Which of the answer-figures completes the given matrix figure ?



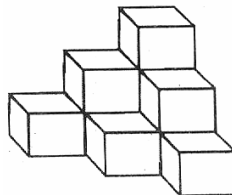
48. If $20 * 3 = 180$ and $4 * 5 = 100$, then what is the value of $7 * 7$?
 (1) 21 (2) 49 (3) 343 (4) 7

49. Determine the number of squares in the following figure :



(1) 14 (2) 9 (3) 10 (4) 16

50. How many cubes are laid on a plane as shown in the following figure ?



(1) 14 (2) 12 (3) 10 (4) 8

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