| ENGLISH - HINDI | $13-15$ |
| :---: | :---: |
|  | Code |

## MENTAL ABILITY TEST

## (For Students of Class X)

## Time: 45 Minutes <br> Max. Marks: 50

## 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.
2. Please follow the instructions given on the answer 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 answer sheet as per instructions given.
4. Write down and darken Booklet Number in the appropriate circles on the answer sheet as per instructions given.
5. There are 50 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 booklet but not on the answer sheetlloose paper.
8. Every correct answer will be awarded one mark.
9. THERE WILL BE A DEDUCTION OF $1 / 3$ MARKS FOR EVERY WRONG ANSWER and No marks will be deducted FOR UNATTEMPTED QUESTIONS.
10. Please return only the answer 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

Roll No.
रोल नम्बर

```
23015162
```

Booklet Number
पुस्तिका संख्या

## 2152042

## बौद्धिक योग्यता परीक्षा (कक्षा X के विद्यार्थियों के लिए)

## समय: $\mathbf{4 5}$ मिनट अधिकतम अंक: $\mathbf{5 0}$ परीक्षार्थियों के लिए अनुदेश

 प्रश्न पुस्तिका खोलने से पहले, निम्न अनुवेशों को ध्यान से पढ़िए।1. उत्र एक अलग उत्तर-पत्रक में देंने हैं।
2. कृपया उत्तर चिह्हित करने के लिए उत्रर-पत्रक पर दिए गए अनुदेशों का अनुपालन कीजिए।
3. कृपया अपना आठ-अंकीय रोल नंबर, जैसा कि आपके प्रवेश पत्र पर दिया गया है, अनुदेशानुसार प्रश्न-पुस्तिका और उत्तर-पत्रक पर बहुत स्पष्ट रूप से लिखिए और दिए गए उययुक्त गोलों को काला कीजिए।
4. कृपया उत्तर-पत्रक में उपयुक्त खाने में निर्देशानुसार पुस्तिका संख्या लिखिए तथा उपयुक्त गोलों को काला कीजिए।
5. इस परीक्षा में 50 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
6. क्योंकि इस प्रश्न पत्र के लिए निर्थारित समय बहुत सीमित है, इसीलिए इसका सवॉत्तम उपयोग कीजिए और किसी प्रश्न पर बहुत समय न लगाइए।
7. रफ कार्य पुस्तिका में कहों भी किया जा सकता है, किन्तु उत्तर-पत्रक/अलग कागज पर नहीं।
8. प्रत्येक सही उत्तर का एक अंक प्रदान किया जाएगा।
9. प्रत्येक गलत उत्तर के लिए $1 / 3$ अंक काटा जाएगा और किसी प्रश्न का उत्तर न देने पर उसके लिए कोई अंक नहीं काटा जाएगा।
10. कृपया परीक्षा के पश्चात केवल उत्तर-पत्रक ही निरीक्षक को वापिस कर दीजिए।
11. अनुवादित विकरण में अंतर से उठे किसी भी विवाद की स्थिति में, प्रश्न पत्र के अं्रेजी विवरण को निर्णायक माना जाएगा।
कृपया पृष्ठ पलहिए और अपना कार्य आरम्भ कीजिए

## NCERT 2015

The copyright of the contents of this booklets rests with the NCERT and no part of it should be used by anybody in any manner whatsoever without the prior permission of the NCERT. The items are prepared on best efforts basis. In case of any dispute the opinion of the experts appointed by NCERT will be final.

## NTSE STAGE_II MENTAL ABILITY PAPER-2015

1. If RESPOND is coded as EMPOTDS and SENSE is coded as FRODT, then CLARIFY will be coded as :
(1) EDTOJME
(2) ZEJSBMD
(3) ZEJQBKD
(4) ZDKSBKD
2. Madhu walks 15 metres towards north, then she turns left at $90^{\circ}$ and walk 30 metres, then turns right at $90^{\circ}$ and walks 25 metres. How far, she is form the starting point and in which direction ?
(1) 55 mt ., north -east
(2) 50 mt ., north-west
(3) 60 mt., north
(4) 50 mt ., west
3. Five friends $A, B, C, D$ and, $E$ are standing in a row facing south but not necessarily in the same order. Only $B$ is between $A$ and $E, C$ is immediate right to $E$ and, $D$ is immediate left to $A$. On the bais of above information, which of the following statement is definitely true?
(1) $B$ is to the left of $A$
(2) $B$ is to the right of $E$
(3) $A$ is second to the left of $C$
(4) $D$ is third to the left of $E$

Direction (Question 4-8) : A, B, C, E, F, G and H are seven employees in an organisation working in the departments of Administration, Accounts and Operations. There are at least two employees in each department. There are three females, one in each department. Each of seven employees earns different amount. The only bearded employee F works in administration and his only other colleague G earns the maximum. C, the least earner works in Accounts. $B$ and $E$ are brothers and do not work in the same department. A, husband of H. works in Accounts and earns more than each of F, B and E. The wife in the couple earns more than the husband.
4. Which of the following is a group of females:

1. GCE
2. GEH
3. GCH
4. GHB
5. In which department(s) do three people work ?
6. Operations
7. Accounts
8. Operation or Account
9. Data inadequate
10. What will be position of A from the top when they are arranged in descending order of their income ?
11. Second
12. Third
13. Fourth
14. Fifth
15. In which of the following department does B work ?
16. Operations
17. Accounts
18. .Administration
19. Data inadequate
20. Which of the following statments is definitely true ?
21. B earns less than $F$ and $H$
22. $F$ earns more than $B$ and $E$
23. B earns more than $E$ and $C$
24. $B$ earns less than $A$ and $H$

Direction ( Question 9-11) : Given an input, a machine generates pass codes for the six batches each day as follows:
Input : these icons were taken out from the sea.
Pass Codes
Batch I
Batch II
Batch III
Batch IV
: from sea the out taken were icons these
: from icons these were taken out the sea
: from icons out sea the taken were these
from icons out sea these were taken the
9. What will be the pass code for the Batch V on a day, if the input is "four of the following five form a group" ?

1. a five following form four group the of
2. a five following form group the of four
3. a five following form four of the group
4. a five following form four group of the
5. If the pass code for the Batch IV on a day was 'back go here people who settle want to', what was the pass code for the Batch $V$ on that day ?
6. back go here people settle who want to
7. back go here people to want settle who
8. back go here people settle to want who
9. cannot be determined

Resロпヲпce
Educating for better tomorrow

11．The pass code for the Batch I on a day was＇he so used to sell the surplus items＇．What was the input on that day？
1．items surplus the sell to used so he
2．he items surplus the sell to used so
3．so used to sell the surplus items he
4．cannot be determined

12．What is the total number of triangeles and total numbers of squares in the give figure ？


1． 28 triangles， 10 squares
2． 28 triangles， 8 squares
3． 32 triangles， 10 squares
4． 32 triangles， 8 squares
13．A cube whose two adjacent faces are coloured is cut into 64 identical small cubes．How many of those small cubes are not coloured at all ？
1． 24
2． 32
3． 36
4． 48

14．If $54 / 32=4,36 / 42=3,92 / 22=7$ then what is $28 / 33=$ ？
1.5
2． 6
3． 4
4． 9

15．In a certain code language，＇po ki top ma＇means＇Usha is playing cards＇＇＇Kop Ja ki ma＇means＇Asha is playing tennis＇，＇ki top sop ho＇menas＇they are playing football＇；and＇po sur kop＇means＇cards and tennis＇．Which word in this language means＇Asha＇？
1．Ja
2．ma
3．kop
4．top

16．A ship navigating in the Indian Ocean is hit by a sea storm and drifts as follows ：
40 km North
28 km north west
36 km west
52 km south and 29 km south east．
The ship had finally drifted in． $\qquad$ direction from its original position．
1．South West
2．South
3．West
4．South East

17．Four diagrams marksed $A, B, C$ and $D$ are given below．The one that best illustrates the relationship among three given classes ：
Women，Teachers，Doctors


1．A
2．$B$
3．C
4．D
18．Identify the missing number in the following squence
2，17，52， $\qquad$ ，206
1.73
2.85
3.113
4.184

19．Select the missing number



1.184

2． 210
3． 241
4.425

Resロ円ə円се
Educating for better tomorrow

20．Select the missing numbers in the following sequence
3，6，24，30，63，72，？，？，195，210
1．117， 123
2．120，132
3．123，135
4．135，144

21．Find the number that does not belong to the group ：
111，331，482，551，263，383，362，284
1． 263
2． 331
3． 383
4． 551

22．Which letter replaces the question mark？


23．Certain blank spaces are left in the following sequence．Which is the group of letters given below，will complete the sequence？
c＿bba＿cab＿ac＿ab＿ac 1．acbcb 2．bcacb

3．babec
4．abebe
24．A boat starts with the speed of 1 km per hour．After every 1 km ．the speed of boat becomes twice．How much will be the average speed of the boat at the end of journey of 2.5 km ？
1．$\frac{2.5}{1.5125}$
2．$\frac{2.5}{1.75}$
3．$\frac{2.5}{1.625}$
4．$\frac{2.5}{1.50}$

25．Using the total number of alphabets in your solution as a parameter，find the number that represents G if， A－0，B－0，C－2，D－2，E－1，F－2，G
1.2
2.3
3.4
4.5

26．Rs． 1000 is given to $A, B$ and $C$ in some ratio，$A$ is wrongly given double and $C$ is wrongly given half，which is Rs． 500 and Rs． 250 repectively．how much is given to $B$ ？
1.500
2.250
3.750
4．None of above

27．Given that the total cost of 5 erasers， 7 sharpeners and 9 pencils is Rs． 100 and the total cost of 2 ersers， 6 sharpeners and 10 pencils is Rs．80．What is the total cost（in Rs．）of one eraser，one sharpender and one pencil ？
1.10
2.15
3.20
4．Data are not sufficinet

28．Renu went to the market betwen 7 am and 8 am ．The angle between the hour－hand and the minure－hand was $90^{\circ}$ ．She returned home between 7 am and 8 am ．Then also the angle between the minute－hand and hour－hand was $90^{\circ}$ ．At what time（nearest to second）did Renu leave and return home？
1.7 h 18 m 35 s and 7 h 51 m 24 s
2． 7 h 19 m 24 s and 7 h 52 m 14 s
3． 7 h 20 m 42 s and 7 h 53 m 11 s
4.7 h 21 m 49 s and 7 h 54 m 33 s

29．Stimulant：Activity ：：？
1．Symptom ：Disease 2．Food：Hunger 3．Fertilizer：Growth 4．Diagnosis ：Treatment
30．Choose the missing number form among the four alternatives ：

4.40
2.20

3.25

1.15

Resロ円ə円се
Educating for better tomorrow
31. From among the four alternatives given below, which numbr replaces the question mark ?

2.10

3.18

4.23
32. From among the four alternatives given below, which letter replaces in the given figure the question mark ?


1. A
2. $B$
3. $S$
4. $Y$
5. Choose the correct mirror-image most closely resembles the word-source, from the four given alternatives.

## source

1. 20 WTO 9
2. 901 O 2
3. 910 U O 2
4. ecru OS
5. In the problem figure a unfolded cuboid is given. Choose from the four given alternatives the box that will be formed when problem figure is folded.

6. 1 only
7. 1 and 2 only
8. 1,2 and 3 only
9. 2 and 3 only
10. A work can be completed by 40 workers in 40 days. If 5 workers leave every 10 days, in how many days work will be completed?
11. 55, 66
12. 56, 44
13. 56,66
14. 58, 66
15. From among the four alternatives given below, which figure replaces the question mark ?

16. 


2.

3.

4.

37. Six persons $A, B, C, D, E$ and $F$ are sitting in two rows, three persons are sitting in each row
$E$ is not at the end of any row
$D$ is second to the left of $F$
$C$, the neighbour of $E$, is sitting diagonally opposite to $D$
$B$ is the neighbour of $F$
Who are sitting in each column

1. $A$ and $D ; E$ and $F$; and $B$ and $C$
2. $A$ and $F$; $D$ and $E$; and $B$ and $C$
3. $B$ and $D$; $A$ and $C$; and $E$ and $F$
4. $A$ and $D$; $B$ and $E$; and $F$ and $C$
5. The sum of the incomes of $A$ and $B$ is more than that of $C$ and $D$ taken together. The sum of incomes of $A$ and $C$ is the same as that of $B$ and $D$ taken together. Moreover, $A$ earns half as much as the sum of the incomes of $B$ and $D$. Whose income is highest?
6. A
7. B
8. C
9. D
10. A letter number series is given with one or more terms missing as shown below. Choose the alternative next in the sequence.
A4X, D9U, G16R, $\qquad$
11. J25P
12. J25O
13. J25C
14. Study the following information and answer the question given below it :

Rohit, Kunal, Ashish and, Ramesh are students of a school. Three of them stay far from the school and one near it. Two studies in class IV, one in class V and one in class VI. They study Hindi, Mathematics, Social Science and Science. one is good at all four subjects while another is weak in all of these. Rohit stay far from the school and is good at mathematics only while Kunal is weak in mathematics only and stay close to the school. Neither of these two nor Ashish studies in class VI. One who is good at all the subjects study in class V. Name the boy who is good at all the subjects.

1. Rohit
2. Ramesh
3. Kunal
4. Ashish
5. Half of the villagers of a certain village have their own houses. One-fifth of the villagers cultivate paddy. One -third of the villagers are below twenty five. Then, which one of the following is certainly true?
6. At least 10 percent villagers who have their own houes are literate.
7. At least 25 percent of the villagers who have their own huses cultivate paddy.
8. At least 50 percent of the villagers who cultivate paddy are below twenty five.
9. At least 13.33 percent literate must be below twenty five
10. A tank is filled by three pipes with each pipe having uniform flow. The first two pipes operating simultaneously fill the tank in the same time during in which the tank is filled by the third pipe alone. The second pipe fills the tank 5 hours faster than the first pipe and 4 hours slower than the third pipe. The time required by the first pipe ot fill the tank is :
11. 6 hours
12. 10 hours
13. 15 hours
14. 30 hours
15. If FEED is coded as 47 and TREE is coed as 91 , then MEET will be coded as :
16. 110
17. 114
18. 118
19. 122
20. One watch is 1 minute slow at 1 pm on Tuesday and 2 minutes fast at 1 am on Friday When did it show the correct time ?
21. 5.00 am on Wednesday
22. 9.00am on Wednesday
23. 5.00 pm on Wednesday
24. 9.00 pm on Wednesday

## Direction (Question $45-47$ ) : A coding language is used to write English words in coded form givenbelow :

| TENNIS |  |
| :--- | :--- |
| TRUE | $@+\#^{*}$ |
| PRIME | ${ }^{*}=?$ ? \% |
| SPINE |  |

The codes do not appear in the same order of the letters in English words. Decode the language and based on these codes identify the code for English word given in each question from the alternatives provided.
45. MINT

1. $\%=$ \& *
2. = \# ? \%
3. $@ \%=\$$
4.     * @ ? +
5. 

RINSE
(1) = ? + * @
(2) $\%$ * \$ \# \&
(3) * \$ \# @ +
(4) \$ \& \# = ?
47. INTEREST
(1) $=$ ? * $+\%$ \& = *
(2) ? \# = ? + \# * \$
(3) + \$ @ + \$ = * \%
(4) @ \# * \# @ \$ \% \&

Direction (Question 48-49) There are three circles in the following diagram. A total number of 100 persons were surveyed and the number in the diagram indicates the number of tourists who visited different states. 46 tourists visited Sikkim and 42 tourists visited Karnataka.

48. How many tourists have visited at least two states ?
(1) 46
(2) 50
(3) 54
(4) 58
49. How many tourists have visited only two states ?
(1) 46
(2) 50
(3) 54
(4) 96
50. If BREAKTHROUGH is as EAOUHRBRGHKT, DISTRIBUTION will be coded :
(1) STTIBUDIONRI
(2) TISTBUONDIRI
(3) STTIBUONRIDI
(4) RISTTIBUDION


