# NAB Competition 2021-II - 8th \& <br> Above 

National Analytical Brains Competition 2021-II- 8th \& Above

* Required

1. Name*
2. Registration ID *
3. Contact Number ( registered one) *
$\qquad$

All question are mandatory. Please note there is no negative marking:
Mathematical Ability
4. 1. Find the value of "?" if : $65 \%$ of $240+? \%$ of $150=210$

Mark only one oval.46453632
5. 2. The square of prime number is prime.

## Mark only one oval.

YesNoMay or May not beNone of these6. 3 . On selling 15 toys at ₹ 750 , there is a loss, equal to the cost price of 5 toys. The cost price of a toy is :

Mark only one oval.₹ 85₹80₹65₹75
7. 4. The length and breadth of a rectangular park is 50 m and 120 m respectively. What is the minimum distance you will cover if you cross the park diagonally?

Mark only one oval.120 m130 m180m170 m
8. 5. What will be the value of :

$$
\begin{aligned}
& \sqrt{176+\sqrt{2401}} \\
& \text { Mark only one oval. }
\end{aligned}
$$14151617

9. 6. Find the least square number, which is exactly divisible by $3,4,5,6$ and 8 . Mark only one oval.3600420012014400
1. 7. Pintu's income is $20 \%$ less than Naman. How much percent is Naman's income more than Pintu's income?

Mark only one oval.20\%$15 \%$80\%$25 \%$
11. 8. What is the least number that must be added to 1500 to get a perfect square.

Mark only one oval.
211005679
12. 9. A garden 50 m by 40 m is surrounded by a path of area 425 sq m . Find the width of the path.


Mark only one oval.5m2.5 m42.5 m7.5 m
13. 10. A dealer allows $15 \%$ discount on his goods and still gains $6.25 \%$. If cost price of a pen is ₹ 80 , then its marked price is :

Mark only one oval.₹100₹93.75₹86.25₹95
14. 11. Find the greatest number of 4 digits which is a perfect square.

Mark only one oval.10000980199999901
15. 12. A rectangular sheet of paper $44 \mathrm{~cm} \times 18 \mathrm{~cm}$ is rolled along its length and a cylinder is formed. Find the volume of the cylinder.

Mark only one oval.
$\qquad$ 2490 cubic cm2257cubic cm2772 cubic cm792 cubic cm
16. 13. Which number is cube of even natural number:

Mark only one oval.2704
( 266216481728
17. 14. If $x: 20:: 8: 5$ then value of $x$ is :

Mark only one oval.
2528232
18. 15. In how many years the sum of money will double itself with $5 \%$ interest (simple) per annum?

Mark only one oval.5101520
19. 16. There were 3143 boxes, which were required to be arranged in the form of a square. In this arrangement 7 boxes left over. How many boxes were there in each row?

Mark only one oval.39564634
20. 17. In the number $A 2 B, A$ is the largest one digit odd number and $B$ is largest perfect square number less than 20. Then find the square root of the number.

Mark only one oval.968878None of these
21. 18. If radius of a circle is increased to twice its original length, then how much will the area of the circle increase?

Mark only one oval.2 times3 times4 times1 timestimes
22. 19. There are 1400 students in a school, $25 \%$ of those wear spectacles and $2 / 7$ of those wearing spectacles are boys. How many girls in the school wear spectacles?

Mark only one oval.400250100350
23. 20. The ratio of the length and breadth of a plot is $5: 3$. If the breadth is 60 m less than the length, what is the perimeter of the plot?

Mark only one oval.480m240m120 m360 m

## Logical Reasoning <br> Ability

All question are mandatory. Please note there is no negative marking:
24. 21. One term in the below series is wrong. Find out the wrong term :

## 121, 143, 165, 186, 209

Mark only one oval.
( 143165186209
25. 22. There is a certain relation between two given words on one side of :: and similar relation is on the other side of :: Find the missing word of the second pair:

## Mango: Fruit :: Potato : ?

Mark only one oval.RootFruitStemFlower
26. 23. Out of the five words four are alike and one is different. Find the different one:

Mark only one oval.UncleNephewBrotherCousinNiece
27. 24. Out of the five Numbers four are alike in some manner and one is different. Find the different one:

Mark only one oval.271253437291321
28. 25. In a certain code, THANKS is written as SKNTHA, then how will STUPID be written in that code?

Mark only one oval.DIPUTSDISPUTDIPUSTDPISTUNone of These
29. 26. If $A$ is 40 m south-west of $B$. $C$ is 40 m South-east of $B$. Then, $C$ is in which direction of $A$ ?

Mark only one oval.EastWestNorth-eastSouth
30. 27. Below three words are related in some way. Which of the following diagrams can best represent the relation:

> Nose, Hand, Body

A

B

C

D

E
Mark only one oval.ABCDE
31. 28. Out of the below five words, which will come in middle if arranged alphabetically as in a dictionary:

Mark only one oval.EntryEfflorescentEntreatEnsureEvery
32. 29. If day before yesterday was Thursday, when will Sunday be:

Mark only one oval.TodayTwo days after todayTomorrowDay after tomorrow
33. 30. If + means,- means $x, \div$ means + and $x$ means $\div$ then $15-3+10 \times 5 \div 5=$ ?

Mark only one oval.5
(224858
34. 31. A pineapple costs ₹ 7 each. A watermelon costs ₹ 5 each. $X$ spends ₹ 38 on these fruits. The number of pineapples purchased is:

Mark only one oval.234Data inadequate
35. $\quad 32$. Find the missing number?


Mark only one oval.12162250110368100
36. 33. Find the missing number?


4


2

Mark only one oval.27355464
37. 34. Below numbers follow a trend either row wise or column wise. Find out that trend and choose the best fit choice:

| 1 | 4 | 9 | $?$ |
| :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 |
| 2 | 4 | 6 | $?$ |

Mark only one oval.16, 825,536,449.7
38. 35. What are the numbers that lie inside any two figures?


Mark only one oval.2,15,15,99,1
39. 36. In the series given below, how many 8 s are there each of which is exactly divisible by its immediate preceding as well as succeeding numbers?

## 2838248248682824838286

Mark only one oval.OneTwoThreeFourNone of these
40. 37. One term is missing in the below series. Find the correct alternative that will come in place of "?"
RB,
4C,
BE,
14H,
?

Mark only one oval.16K20120L22L
41. 38. In a certain code:
'917' means 'BRING SMALL BED';
'946' means 'CLEAN ONE BED' and
'941' means 'ONE SMALL BED'. Which digit in that code means 'CLEAN'?
Mark only one oval.1649
42. 39. One term is missing in the below series. Find the correct alternative that will come in place of "?"
B,
D,
F,
I,
L,
P,
?

Mark only one oval.RS
T
43. 40. In the below series, some letters are missing. Choose the correct option to fill the series.
a $\qquad$ cdaab $\qquad$ CC $\qquad$ daa $\qquad$ bbb $\qquad$ ccddd

Mark only one oval.bbdacdbbcabddcabdbda

Real Life
Problems:
Study the
following
information
and answer
the
questions
from 41 to
50:

Vihaan, Sid, Jayesh and Arnav are four friends who do not mind exchanging items. Vihaan had two chessboards each costing ₹ 500 and a record player. Jayesh-originally had a cycle and a walkman. Each cricket bat costs ₹ 700. Both Arnav and Jayesh got a cricket bat from Sid. Vihaan gave his record player costing ₹ 2000 to Sid. Jayesh got a camera costing ₹ 1500 from Arnav. The cycle Jayesh had costs ₹ 1000 and the Walkman costs ₹ 700 . Sid had three cricket bats at the beginning and Arnav had two cameras total cost of which is ₹ 5000. Vihaan gave one of his chessboards to Jayesh and took Jayesh's cycle. Jayesh gave his Walkman to Arnav.
44. Q 41: Who did not have a cricket bat at the end of exchange of items?

Mark only one oval.VihaanSidJayeshArnav
45. Q 42: Total cost of materials Jayesh had at the beginning was:

Mark only one oval.₹ 5000₹ 3000₹ 2100₹ 1700
46. Q 43: After completion of exchange of items, Vihaan had with him an item which no one else had. What is the item?

Mark only one oval.ChessboardCycleRecord PlayerWalkman
47. Q 44: At the beginning who had the costliest items?

Mark only one oval.VihaanSidJayeshArnav
48. Q 45: In the process of exchange of items, Sid received an item from:

Mark only one oval.VihaanJayeshArnavNone of these
49. Q 46: After exchange of items, Sid had:

Mark only one oval.one record playerone cricket batone record player and one cricket batone record player and one camera
50. Q 47: After exchange of items, who had the items total cost of which is ₹ 1500 ?

Mark only one oval.VihaanSidJayeshArnav
51. Q 48: Who incurred maximum loss after the exchange of items?

Mark only one oval.ArnavVihaanJayeshSid
52. Q 49 Who made profit after the exchange of items?

Mark only one oval.Vihaan and SidVihaan and ArnavSid and JayeshJayesh and Arnav
53. Q 50: At the end of exchange of items, Arnav had in his possession Mark only one oval.one cricket bat and one cameraone camera, one walkman and one cricket batone cricket bat and one walkmanOne Camera and one walkman

## Google Forms

