

# NAB Competition 2021 - Grade 08 & Above

National Analytical Brains Competition 2021 for Grade 08 & Above

\* Required

1. Name \*

---

2. Registration Number \*

---

3. Contact Number ( Registered Number) \*

---

Mathematical Ability

All question are mandatory. Please note there is no negative marking:

4. 1. The area of a rectangle 144 m long is same as that of a square of side 84 m. The width of the rectangle is: 1 point

*Mark only one oval.*

14 m

49 m

7 m

None of these

5. 2. Which smallest number must be added to 2203 to get a perfect square? 1 point

*Mark only one oval.*

6

3

8

1

6. 3. A PT teacher of a school wants to form a square from 36562 students. After arrangement he found some students are left. How many students were left? 1 point

*Mark only one oval.*

80

82

97

81

7. 4. The height of an equilateral triangle is 3cm. Its area is : 1 point

*Mark only one oval.*

$\sqrt{3}$  sq cm

$2\sqrt{3}$  sq cm

26 sq cm

$3\sqrt{3}$  sq cm

8. 5. Find the value of  $\sqrt[3]{(-2300 \times 5290)}$

1 point

Mark only one oval.

-230

-2300

230

23

9. 6. A man sold two pipes at ₹ 12 each. On one he gained 20% and another he lost 20%. Overall he :

1 point

Mark only one oval.

gained ₹ 1

lost ₹ 1

gained ₹ 2

neither gained nor lost

10. 7. Square root of  $(\sqrt{2500} + \sqrt{961})$  = Square of x. Value of x =

1 point

Mark only one oval.

9

6561

3

81

11. 8. A shopkeeper marks his pen ₹ 12. A discount of 15% is given on it. A second discount is given to bring the price down to ₹ 8.16. The rate of second discount is: 1 point

*Mark only one oval.*

- 20%
- 18%
- 15%
- 21%

12. 9. The dimensions of a plot are 300 m x 250 m. A builder builds 3 roads which are 3 m wide along the length on either side and one in the middle. On either side of the middle road he builds houses to sell. How much area did he get for building the houses? 1 point

*Mark only one oval.*

- 72800 sq.m
- 7200 sq. m
- 72400 sq. m
- 72300 sq. m

13. 10. The value of  $\sqrt{535.9225}$  1 point

*Mark only one oval.*

- 23.45
- 23.15
- 23.50
- 28.15

14. 11. A retailer buys some silk scarves for ₹ 460 and sells them at 60% profit. For how much does he sell them? 1 point

*Mark only one oval.*

- 676
- 620
- 520
- 736

15. 12. A rectangular park of length 80 m and breadth 50 m is there in a locality. Two crossroads perpendicular to each other of width 5 m needs to be constructed in between the park for walking. Find the area of horizontal Road. 1 point

*Mark only one oval.*

- 400 sq m
- 420 sq m
- 250 sq m
- None of these

16. 13. What is the radius of the largest circle that can be cut-out of the rectangle measuring 24 cm in length and 22 cm in breadth? 1 point

*Mark only one oval.*

- 12 cm
- 11 cm
- 10 cm
- 15 cm

17. 14. What is value of square root of

1 point

$$\frac{(0.16)^2 + (0.20)^2 + (0.25)^2}{(0.016)^2 + (0.020)^2 + (0.025)^2}$$

Mark only one oval.

- 0.1  
 100  
 0.01  
 10

18. 15. The three numbers are in the ratio 2 : 3 : 4. The sum of their cubes is 33957. Find the smallest number. 1 point

Mark only one oval.

- 14  
 11  
 7  
 99

19. 16. The area of a rectangular field whose length is twice its breadth is 4050 sq. m. Find the perimeter of the field. 1 point

Mark only one oval.

- 180m  
 270m  
 210 m  
 230 m

20. 17. Rahul walks 12 m North from his house and turns West to walk 35 m to reach his friend's house. While returning, he walks diagonally from his friend's house to reach back to his house. What distance did he walk, while returning? 1 point

*Mark only one oval.*

- 37 m
- 31 m
- 47 m
- 41 m

21. 18. Four horses are tethered with equal ropes at 4 corners of a square field of side 84 m, so that they just can reach one-another. Find the area left ungrazed by the horses. 1 point

*Mark only one oval.*

- 1420 m Square
- 1512 m Square
- 1514 m Square
- 1412 m Square

22. 19. In the number  $a4b$ , "a" is the smallest two digit perfect cube and a's unit digit exceeds "b" by 3. What is the number? 1 point

*Mark only one oval.*

- 2734
- 877
- 2744
- None of these

23. 20. A rectangular sheet of dimensions 25 cm x 7 cm is rotated about its longer side. Find the surface area of the solid thus generated. 1 point

Mark only one oval.

- 275 sq. cm
- 175 sq. cm
- 180 sq. cm
- None of these

Logical Reasoning  
Ability

All question are mandatory. Please note there is no negative marking:

24. Q 21: How many 4's are there in the following number sequence which are immediately preceded by 7 and immediately followed by 3? 1 point

5 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5 8 2 0 1 8 7 4 6 3

Mark only one oval.

- Three
- Four
- Five
- One



25. Q 22: In the following alphabet series. Which letter is exactly in middle of F and R. 1 point

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Mark only one oval.

- L  
 M  
 N  
 None of these

26. Q 23: Which number will replace “?” mark: 1 point

5, 2, 7, 9, 16, 25, ?

Mark only one oval.

- 41  
 36  
 31  
 52

27. Q 24: If all the words are arranged alphabetically as in a dictionary then which one will come in the middle? 1 point

Mark only one oval.

- Sport  
 Spouse  
 Squash  
 Sporadic  
 Sprout

28. Q 25: Going 50 m to the South of her house, Rashi turns left and goes 1 point  
another 20 m. Then, turning to the North, she goes 30 m and then starts  
walking to her house. In which direction is she walking now ?

*Mark only one oval.*

- North-west  
 North  
 South-east  
 East

29. Q26: Cyclone is related to Anticyclone in the same way Flood is related 1 point  
to \_\_\_\_\_

*Mark only one oval.*

- Devastation  
 Havoc  
 River  
 Drought

30. Q 27: If 'rat' is called 'dog', 'dog' is called 'monkey', 'monkey' is called 1 point  
'leopard', 'leopard' is called 'fox' and 'fox' is called 'giraffe', which is  
reared as pet ?

*Mark only one oval.*

- Rat  
 Dog  
 Monkey  
 leopard  
 Fox

31. Q 28: In a certain code, '786' means 'study very hard', '958' means 'hard work pays' and '645' means 'study and work'. Which of the following is the code for 'very'?

*Mark only one oval.*

- 8
- 6
- 7
- Cannot be determined
- None of these

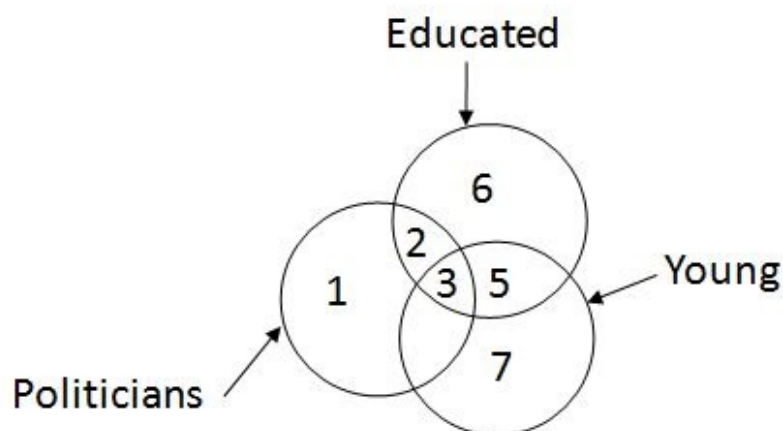
32. Q 29: There is a certain relation between two words given on one side of :: . Out of the below four alternatives, one word will have similar relation with the word on other side of ::

**Newspaper : Press :: Cloth : ?**

*Mark only one oval.*

- Tailor
- Textile
- Fibre
- Mill

33. Q 30: Which region denotes the politicians which are neither young nor educated? 1 point
- educated?



Mark only one oval.

- 2
- 3
- 1
- 7

34. Q 31: Four words are alike in some manner, while the fifth one is different. Choose out the odd one: 1 point

Mark only one oval.

- Run
- Walk
- Think
- Jump
- Swim

35. Q 32: Choose the number which is different from the others. 1 point

*Mark only one oval.*

- 8
- 36
- 64
- 125
- 216

36. Q 33: Find the missing term in the series: 1 point

R, U, X, A, D, ?

*Mark only one oval.*

- F
- G
- H
- I

37. Q 34: Find the missing term in the series: 1 point

240, ?, 120, 40, 10, 2

*Mark only one oval.*

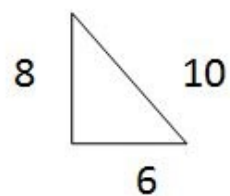
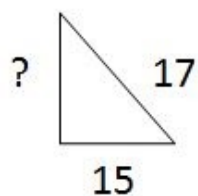
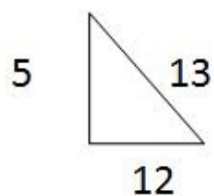
- 180
- 240
- 160
- 200

38. Q 35: In a certain language, POPULAR is coded as QPQVMBS, which word will be coded as GBNPVT 1 point

*Mark only one oval.*

- FARMER
- FAMOUS
- FRAMES
- FARMES

39. Q 36: 1 point



*Mark only one oval.*

- 7
- 8
- 6
- 11

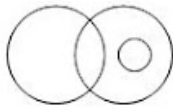
40. Q 37: Below three words are related in some way.

1 point

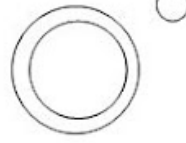
Apple, Golden Apple, Fruits



A



B



C



D



E

Mark only one oval.

A

B

C

D

E

41. Q 38: Rashi is seventeenth from the left end of a row of 29 girls and Kavya is 17th from the right end of the same row. How many girls are there between them in the row ?

1 point

Mark only one oval.

3

5

6

Cannot be determined

42. Q 39: Arrange the given words in a meaningful sequence and then choose the most appropriate sequence from the following options. 1 point

1. Police 2. Punishment 3. Crime 4. Justice 5. Judgement

Mark only one oval.

1,2,3,4,5

3,1,2,4,5

3,1,4,5,2

5,4,3,2,1

43. Q 40: Which option will replace the “?” in the below matrix 1 point

A	D	H
F	I	M
?	N	R

Mark only one oval.

K

N

O

P

Real Life  
Problems

Read the following passage to answer these questions from 41 to 45

Anita, Mahima, Rajan, Lata and Deepti are five cousins. Anita is twice as old as Mahima. Rajan is half the age of Mahima. Anita is half the age of Deepti and Rajan is twice the age of Lata.



44. Q 41: Who is the youngest ?

1 point

*Mark only one oval.*

- Deepti
- Rajan
- Lata
- Anita

45. Q 42: Who is the eldest ?

1 point

*Mark only one oval.*

- Deepti
- Lata
- Anita
- None of these

46. Q 43: Which of the following pairs of persons are of the same age?

1 point

*Mark only one oval.*

- Mahima and Lata
- Anita and Mahima
- Mahima and Rajan
- None of these

47. Q 44: Anita is younger than \_\_\_\_\_?

1 point

*Mark only one oval.*

- Rajan
- Mahima
- Deepti
- None of these

48. Q 45: If Mahima is 16 years old, then what is the age of Lata? 1 point

*Mark only one oval.*

- 4 years
- 5 years
- 7 years
- 14 years

49. Q 46: You want to buy a carpet to cover drawing room of your house which is 14 m by 9 m. How much long carpet you need to buy if width of the carpet is 63cm ? 1 point

*Mark only one oval.*

- 200 m
- 210 m
- 220 m
- 185 m

50. Q 47: You deposited a sum of ₹2000 in the bank for 18 months. At the time of depositing bank offered you 6% rate of interest (Simple) p.a.. How much money you will get back after 18 months. 1 point

*Mark only one oval.*

- 2120
- 2180
- 2216
- 2240

51. Q 48: You want to construct a water tank to store 42000 L of water. If length of tank is 6 m and breadth is 3.5 m , then how much deep the water tank should be? 1 point

*Mark only one oval.*

- 2 m
- 5 m
- 6 m
- 8 m

52. Q 49. A man's age is now 3 times that of his son. After 15 years it would be double that of his son, the present age of his son is: 1 point

*Mark only one oval.*

- 15 years
- 18 years
- 21 Years
- 24 years

53. Q 50. MRP of a fan is ₹1500. The shopkeeper is offering 20 % discount. But you have only ₹1104. How much more discount will you need to buy the fan? 1 point

*Mark only one oval.*

- 8%
- 10%
- 12%
- 15%

---

This content is neither created nor endorsed by Google.

Google Forms