

## NIACL Assistant Mock Test 3

**Directions (Q.1 - Q.5):** Read the following information and answer the question given below:

In a club, eight members B, C, D, E, F, G, H and I are sitting around a rectangular table. Out of eight, four sit at the corners of a table and face outside, while the other four sit in the middle of the sides of the tables and face towards the centre of the table.

E sits third to the right of H. F sits third to the left of D. H faces centre. Only one person sits between F and G. G is not the immediate neighbour of D. I faces the centre. B is not an immediate neighbour of G. D does not sit in the middle of the sides.

**Q.1** What is the position of B with respect to D?

1. Fourth to the left
2. Second to the left
3. Fifth to the right
4. Sit diagonally opposite to each other
5. Second to the right

**Q.2** Out of the five, four have similar interests and form a group. Which among the following does not belong to that group?

1. G
2. F
3. D
4. E
5. H

**Q.3** Which of the following pairs represents the members seated in the middle side who faces each other?

1. H and F
2. I and G
3. H and G
4. E and F
5. H and I

**Q.4** Who among the following sits third to the right of I?

1. B
2. G
3. E
4. D
5. F

**Q.5** Which of the following is true regarding the seating arrangement?

1. Immediate right of B is F
2. B, H and E face outside
3. G, I, and F faces centre in the table
4. G is the immediate right of C
5. E and B are seated diagonally

**Directions (Q.6 - Q.7):** Below are either two statements followed by two conclusion numbered I and II. The following statements are to be assumed as true where it will be decided which of the given conclusions logically follows from the statements, disregarding the commonly known fact.

Give answer -

1. If only conclusion I follows
2. If only conclusion II follows
3. If either conclusion I or II follows
4. If neither conclusion I nor II follows
5. If both conclusions I and II follow

**Statements for Q.6 - Q.7:**

Some pencils are blankets

All blankets are erasers

**Q. 6 Conclusion:**

I At Least some pencils are erasers

II All erasers being pencils is a possibility

**Q.7 Conclusion:**

I No eraser is a pencil

II All blankets being pencils is a possibility

**Directions Q.8:** What will come in place of the (?) in the following number series?

**Q.8** 7413 7422 7440 ? 7503 7548

1. 7464
2. 7456
3. 7466
4. 7477
5. None of these

**Directions Q.9 - Q.15:** Study the questions and choose the correct answers from the options below:

**Q.9** The difference between the squares of two numbers is 25000 and the sum of the numbers is 1000. The numbers are

1. 600, 400
2. 628, 372
3. 640, 360
4. 630, 350
5. None of these

**Q.10** The difference between the two numbers is 3 and the difference between their squares is 63. Which is the larger number?

1. 9
2. 12
3. 15
4. Cannot be determined
5. None of these

**Q.11** B, C, D, E and F are five consecutive odd numbers. The sum of A and C is 146. What is the value of E?

1. 71
2. 75
3. 79
4. 81
5. None of these

**Q.12** Out of six consecutive natural numbers if the sum of the first three is 27, what is the sum of the other three?

1. 24
2. 25
3. 35
4. 36
5. None of the above

**Q.13** The sum of seven consecutive numbers is 175. What is the difference between twice the largest number and thrice the smallest number?

1. 7
2. 8
3. 10
4. 12
5. None of these

**Q.14** A man spends ₹ 600 in buying 15 tables and chairs. The cost of one table is ₹ 60 and that of one chair is ₹ 40. What is the ratio of the numbers of the chairs and tables purchased?

1. 4 : 3
2. 5 : 7
3. 10 : 3
4. 12 : 14
5. 8 : 12

**Q.15** If  $2x^2 - 7xy + 3y^2 = 0$ , then find the value of  $x : y$

1. 1 : 2
2. 4 : 5
3. 5 : 6
4. 7 : 6
5. Cannot be determined

**Q.16** Find the H.C.F of  $2^3 \times 3^2 \times 5 \times 7^4$ ,  $2^2 \times 3^5 \times 5^2 \times 7^3$ ,  $2^3 \times 5^3 \times 7^2$

1. 780
2. 490
3. 980
4. 540
5. 620

**Direction for Q.17 to Q.20:** In each of the questions, a word has been used in sentence in five different ways. Find the option where the usage of the word is incorrect

**Q.17** *Run*

1. I must run fast to catch up with hi,
2. The armoured column made a thunder run towards the border
3. You cant run over him like that
4. The newly released album by Taylor Swift is enjoying a good run
5. This film is a run -of-the-mill production

**Q.18** *Round*

1. The army fired a round of artillery shells
2. The apartment is located round the crossing
3. We took a round on the Ferris wheel
4. The supervisor is on his round
5. I shall proceed further only after you come round to admitting it

**Q.19** *Buckle*

1. The Confederate lines began to buckle after constant attack by the Unionists
2. The horse suddenly broke into a buckle
3. The accused did not buckle under the police interrogation
4. Sometimes, even an earthquake can make a mountain buckle
5. People should buckle up whenever they enter a roller coaster

**Q.20** *File*

1. You will find the paper under the file marked C
2. I need to file an FIR against a hit and run case
3. The Goths were marching in a single file
4. File your nails before you apply nail polish
5. When the parade was on, a civilian broke the file

**Solutions Q.17 - Q. 20**

**Solution 17:** “Run over him” is the wrong usage. Hence option (3) is correct

**Solution 18:** “ You come around to admit something’ - ‘come round’ is incorrect usage. Hence, option (5) is the correct answer

**Solution 19:** Horses do not break into buckles. Thus the usage here is incorrect (2)

**Solution 20:** Civilians break ranks not files. Thus option (5) is incorrect.

**Directions (Q. 21- 26):** Following are the steps of an input. Rearrange them and answer the questions.

1. mettle offered archaic bleach kettle
2. archaic bleach kettle mettle offered
3. kettle mettle offered archaic bleach
4. offered archaic bleach kettle mettle
5. kettle mettle bleach offered archaic

**Q.21** Which of the following is step III?

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

**Q.22** Which of the following is the first from the right end of step II?

1. Barrage
2. Kettle
3. Mettle
4. Bleach
5. None of these

**Q.23** Which of the following is step V?

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

**Q.24** Which of the following is step IV?

1. 1

2. 2
3. 3
4. 4
5. 5

**Solution Q.21 - Q.24:** The words are arranged by moving them in alphabetical order from right to left.

Step I: kettle mettle bleach offed archaic

Step II: kettle mettle offed archaic bleach

Step III: mettle offed archaic bleach kettle

Step IV: offed archaic bleach kettle mettle

Step V: archaic bleach kettle mettle offed

**Direction for Q.25:** The question contains a pair of CAPITALISED words followed by four pairs of words. Choose the pair of words that does not express a relationship similar to the one expressed by the capitalized pair.

**Q.25 CLIMAX : CLIMATIC**

1. Orgy : Orgiastic
2. Periphrasis : Periphrastic
3. Apocalypse : Apocalyptic
4. Viceroy : Vice royal
5. Titan: Titanic

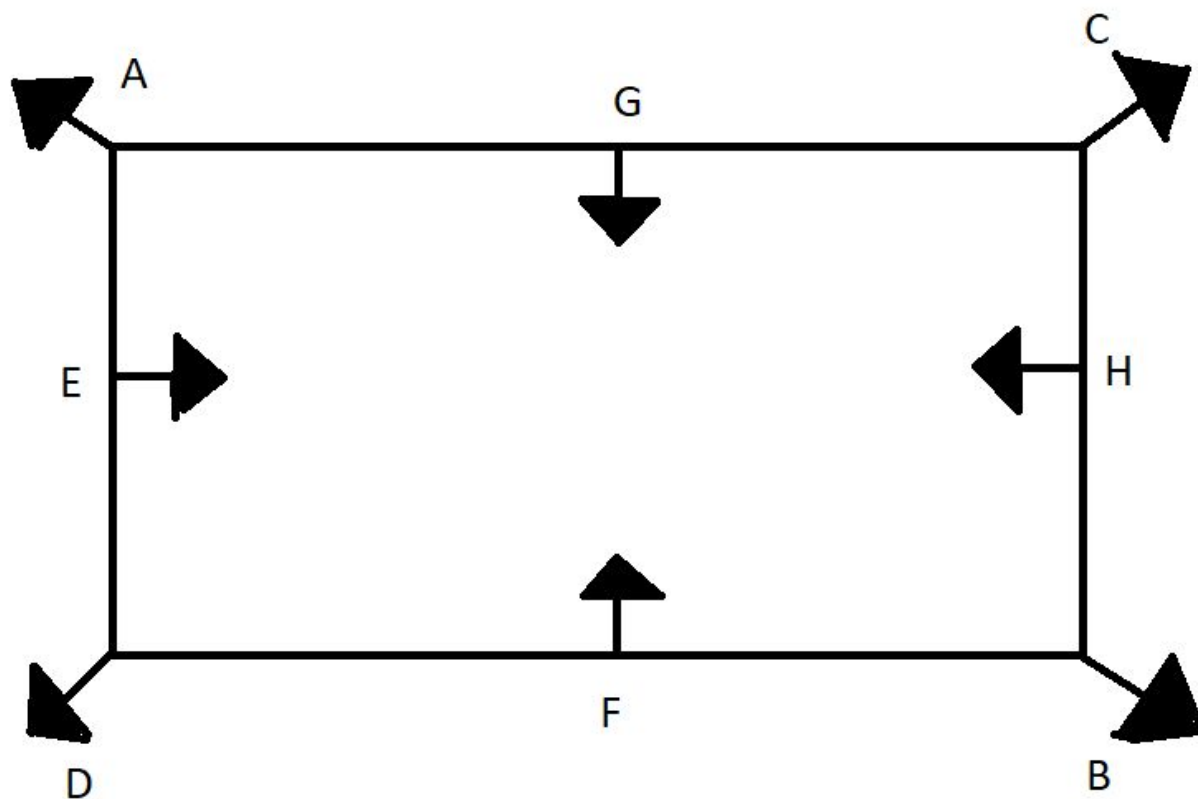
## Answer Key

Q. 1 - 2	Q. 2 - 3	Q. 3 - 3	Q. 4 - 1	Q. 5 - 4
Q. 6 - 5	Q. 7 - 2	Q. 8 - 5	Q. 9 - 2	Q.10 - 2
Q. 11 - 3	Q. 12 - 4	Q. 13 - 3	Q. 14 - 3	Q. 15 - 1
Q. 16 - 3	Q. 17 - 3	Q. 18 - 5	Q. 19 - 2	Q. 20 - 5
Q. 21 - 1	Q. 22 - 2	Q. 23 - 4	Q. 24 - 4	Q. 25 - 4

## Solutions

**Solution Q.1 - Q.5 :** According to the given information, the sitting arrangement at the table and persons is as follows:





**Solution 1:** (2) B is second to the left of D

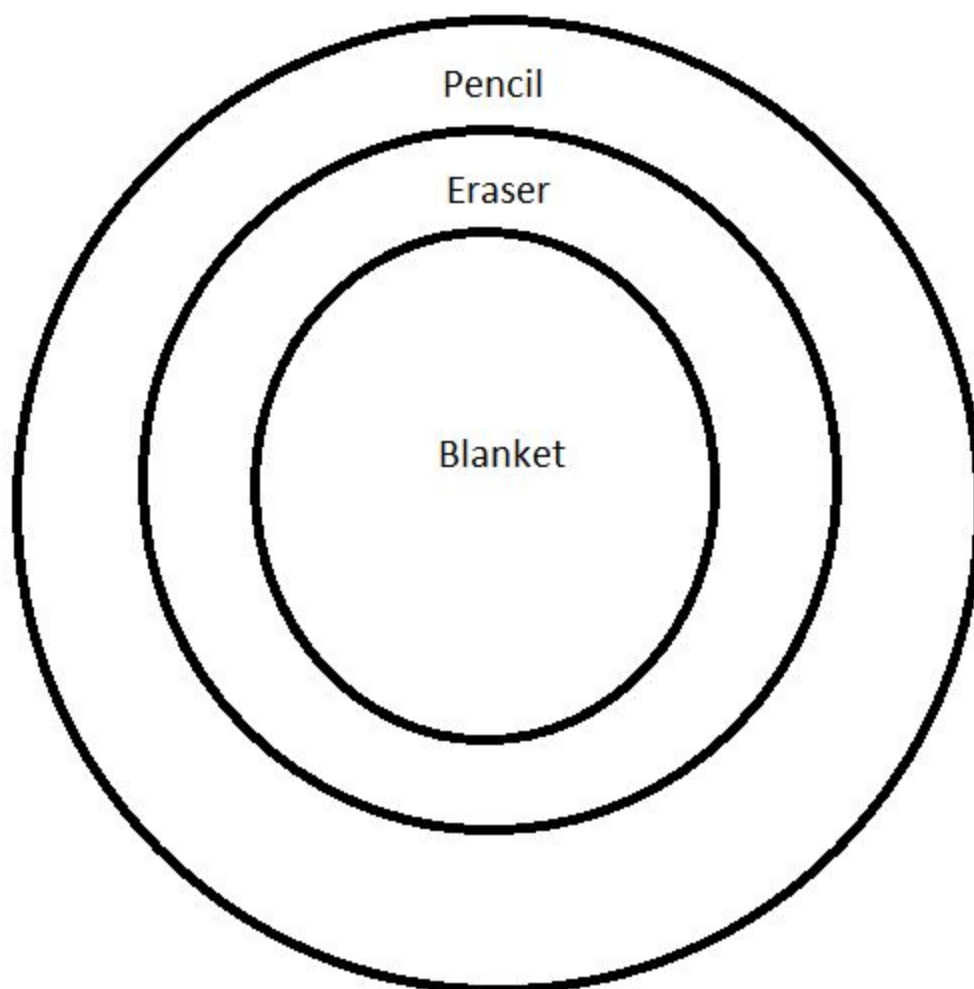
**Solution 2:** (3) Except E, all are seated in the middle sides of the table

**Solution 3:** (3) Both H and G are seated in the middle side of the table and face each other

**Solution 4:** (1) B sits third to the right of I

**Solution 5:** (4) G is to the immediate right of C

**Solution Q.6 - Q.7**



**Solution 6:** (5) Thus, both conclusions I and II are true

**Solution 7:** (2) Thus, conclusion I is false and conclusion II is true

**Solution 8:** (5) 7413 7422 7440 ? 7503 7548

By the pattern observed, consecutively, a multiple of 9 is added to each term

$$7413 + 9 = 7422$$

$$7422 + 18 = 7440$$

$$7440 + 27 = 7467$$

$$7467 + 36 = 7503$$

$$7503 + 45 = 7548$$

**Solution Q.9 - Q.16**

**Solution 9:** (2) Let the numbers  $x$  and  $y$

$$\text{Then, } x^2 - y^2 = 256000 \text{ and } x + y = 1000$$

$$\text{On dividing, we get : } x - y = 256$$

$$\text{We get : } x = 628 \text{ and } y = 372$$

**Solution 10:** (2) Let the numbers be  $x$  and  $y$

$$\text{Then, } x^2 - y^2 = 63 \text{ and } x - y = 3$$

$$\text{On dividing, we get : } x + y = 21$$

$$\text{Solving } x + y = 21 \text{ and } x - y = 3$$

$$\text{The answer will be } x = 12 \text{ and } y = 9$$

$$\therefore \text{ Larger number} = 12$$

**Solution 11:** (3) Let  $B = x$ ,  $C = x + 2$ ,  $D = x + 4$ ,

$$E = x + 6 \text{ and } F = x + 8$$

$$\text{Then, } B + D = 146 \Rightarrow x + (x + 4) = 146$$

$$\Rightarrow 2x = 142 \Rightarrow x = 71$$

$$\therefore F = x + 8 = 71 + 8 = 79$$

**Solution 12:** (4) Let the six numbers be  $x$ ,  $x + 1$ ,  $x + 2$ ,  $x + 3$ ,  $x + 4$  and  $x + 5$

$$\text{Then, } x + (x + 1) + (x + 2) = 27 \Rightarrow 3x + 3 = 27$$

$$\text{Required sum} = (x + 3) + (x + 4) + (x + 5)$$

$$= 3x + 12 = (3x + 3) + 9 = 27 + 9 = 36$$

**Solution 13:** (3) Let the seven numbers be  $x$ ,  $x + 1$ ,  $x + 2$ ,  $x + 3$ ,  $x + 4$ ,  $x + 5$  and  $x + 6$

$$\text{Then, } x + (x + 1) + (x + 2) + (x + 3) + (x + 4) + (x + 5) + (x + 6) = 175$$

$$\Leftrightarrow 7x + 21 = 175 \Leftrightarrow 7x = 154$$

$$\Leftrightarrow x = 22$$

$$\text{Thus the required difference} = 2(x + 6) - 3x = 12 - x$$

$$= 12 - 22 = -10$$

**Solution 14:** (3) Let the number of tables purchased be  $x$

$$\text{Then number of chairs purchased} = (15 - x)$$

$$\therefore 60x + 40(15 - x) = 500$$

$$\Leftrightarrow 60x - 40x = 500 - 600$$

$$\Leftrightarrow 20x = -100$$

$$x = -5$$

$$\text{Thus the number of tables} = -5 \text{ and number of chairs} = 20$$

$$\text{Hence, required ratio} = 20 : -5 = 4 : -1$$

$$\textbf{Solution 15:} \quad (1) \quad 2x^2 - 7xy + 3y^2 = 0 \Leftrightarrow 2x^2 - 6xy - xy + 3y^2 = 0$$

$$\Leftrightarrow 2x(x - 3y) - y(x - 3y) = 0$$

$$\Leftrightarrow (x - 3y)(2x - y) = 0 \Leftrightarrow x = 3y \text{ or } 2x = y$$

$$\Leftrightarrow x/y = 3 \text{ or } x/y = 1/2$$

$$\therefore x : y = 3 : 1 \text{ or } 1 : 2$$

**Solution 16:** (3) The prime numbers common to given numbers are 2, 5 and 7

$$\therefore \text{H.C.F.} = 2^2 \times 5 \times 7^2 = 980$$

**Solutions Q.17 - Q. 20**

**Solution 17:** “Run over him” is the wrong usage. Hence option (3) is correct

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**Solution 19:** Horses do not break into buckles. Thus the usage here is incorrect (2)

**Solution 20:** Civilians break ranks not files. Thus option (5) is incorrect.

**21.** (1) Step III in the above arrangement “mettle offed archaic bleach kettle”

**22.** (2) Step II in the above arrangement is “kettle mettle offed archaic bleach”

**23.** (4) Step V in the above arrangement is “archaic bleach kettle mettle offed”

**24.** (4) Step IV in the above arrangement is “offed archaic bleach kettle mettle”

**Solution 25:** (4) The adjective form of the noun viceroy is vice regal and not vice royal