

## **NIACL AO PRELIMS EXAM**

### **Quantitative Aptitude Syllabus**

- Data Interpretation
- Simplification/ Approximation
- Number Series
- Quadratic Equations
- Quantity based problems
- Ratio & Proportion
- Percentage & Averages
- Profit & Loss
- Mixtures & Allegations
- Pipes and Cisterns
- Boats and Streams
- Simple Interest & Compound Interest
- Time, Work and Wages
- Time & Distance
- Permutation, Combination & Probability

### **Reasoning Ability Syllabus**

- Seating Arrangement (Circular, Linear, Square)
- Puzzles
- Syllogism
- Input Output
- Coding Decoding
- Blood Relations
- Alphanumeric Series/Number Series/Alphabet Series
- Order and Ranking
- Direction based questions
- Data sufficiency
- Inequalities (Direct and Coded)
- Logical Reasoning

### **English language Syllabus**

- Reading Comprehension
- Cloze test

- Fill in the blanks
- Error Spotting/New Pattern Error Spotting
- Sentence Correction/Sentence Improvement
- Para Jumbles
- Para Summary
- Odd One Out
- Para Completion

## English Language

Prepare following topics of this subject:

Reading Comprehension -

- This topic is usually time-consuming.
- In order to save time, first, try to go through the question and then through the passage. It will help you mark out the answer easily.
- As far as the Synonyms / Antonyms questions are concerned, go through the sentence containing the concerned word first and then through the options provided.
- Try to attempt the Vocabulary questions (Synonyms / Antonyms) first.

Cloze Test -

- It basically consists of a passage from which some words have been eliminated.
- This topic aims at testing your ability to comprehend text.
- Read the sentence first and then try to find the correct option by substituting the given options in the sentence. You should be able to eliminate incorrect options with the help of this approach.
- If you feel stuck at some question then move on to the next one. Try and answer it and then go back to the previous question since all the sentences are logically connected.

Para Jumbles-

- While attempting this topic, first go through all the lines and try to understand the gist of the passage.
- Try to look up the independent sentence which mostly forms the first sentence.
- Find out the connecting sentences and try to arrange accordingly.

Fill in the blanks :

- 5 questions are generally asked on this topic.
- For this topic, having a rich vocabulary is very important.

- If you are not able to find the right option, then apply elimination rule.
- Eliminate options one by one, which can not be right according to you.
- Among the remaining options, see which is suiting more the blank. Choose that option which fits the blank aptly without changing the sense/theme of the sentence.

#### Spotting Errors/ Sentence Improvement/Correction -

- Again, go through the entire sentence first.
- Look up for grammatical errors, in case the structure of the sentence seems fine to you.
- Try to eliminate the options by going through the sentence properly.

#### Phrase Replacement -

- You should be able to attempt these questions by reading the sentence properly.
- In case of doubt, try eliminating the options.
- These sentences usually have grammatical errors, so look up the grammar in the sentence to attempt these questions.

#### Sentence Connector

- In these questions, 2 different sentences are given and you are provided with a set of starters or connectors.
- You need to identify a suitable connector with the help of which you can combine the two sentences so that it again forms a meaningful sentence.
- Here again, you'll have to eliminate options by using each option as a connector and applying it to the sentences given.

## Quantitative Aptitude

### Number Series -

Questions on number series give you a series of numbers which are all connected to each other. Once you have identified this pattern, solving the question becomes very simple. You may encounter series based on following -

- Prime Numbers
- Square/Cube Series
- Difference based Series
- Alternate term series
- Multiplication or Division Series
- Series involving the combination of arithmetic functions

This topic is comparatively less time to consume and at the same time scoring. You just need to carefully observe the pattern. You can go through the link below to find out details of number series.

### Simplification/ Approximation -

Simplification means to find out a final answer for a complex calculation. Simplification questions are asked to check the ability of a student to deal with numbers. Whenever an expression with multiple arithmetic operations is given, follow the BODMAS principle for calculating the final result. Rather than calculating the exact value in terms of decimals, calculate the approximate values and then perform the operations.

### Quadratic Equations -

You'll be given two equations of two different variables and you'll need to establish a relationship between the two. We have to solve both of the Quadratic equations to get to know the relation between both the variables. Suppose we have two variables 'x' and 'y'. The relationship between the variables can be any one of the following:

- $x > y$
- $x < y$
- $x = y$  or relation can't be established between x & y
- $x \geq y$
- $x \leq y$

## Data Interpretation -

Almost all the questions that you will encounter in this topic will be based on the following -

- Ratios
- Percentage
- Averages

Hence, have a thorough practice of these topics to score well in DI questions, since it is a high scoring topic ( It constitutes almost 30% of the Quantitative Aptitude Section). You may come across the following types of Data Interpretation questions -

- Pie Charts
- Line Charts
- Bar Graphs
- Tabular Charts
- Mixed Graphs

## Miscellaneous Questions -

This topic consists of questions from the following -

- Problem on Ages
- Profit and loss
- Averages
- Simple Interest and Compound Interest
- Ratio and Proportion
- Time and Work
- Time, Speed and Distance
- Boats and Streams
- Mixtures and Alligations
- Probability

- Data Sufficiency Questions:

In quantitative aptitude, Data Sufficiency is an important topic which is widely asked in the banking and other competitive exams. It just requires your understanding of the various arithmetic topics. The best part of this topic is "you do not have to solve to complete question". As the name suggests, you just have to figure out what statements is/are required to answer the given question. Now, let's have a look at the approach you should follow while solving these questions.

Inequality -

Inequality may be asked in two forms -

- a) Coded Inequality
- b) Direct Inequality

To have a better understanding of the approach for this topic, have a look at the table below -

S. NO.	STATEMENT	CONCLUSION
1.	$A > B > C$	$A > C$
2.	$A > B \geq C$	
3.	$A \geq B > C$	
4.	$A = B > C$	
5.	$A > B = C$	
6.	$A < B < C$	$A < C$
7.	$A < B \leq C$	
8.	$A \leq B < C$	
9.	$A = B < C$	
10.	$A < B = C$	
11.	$A \geq B \geq C$	$A \geq C$ (Either $A > C$ or $A = C$ )
12.	$A = B \geq C$	
13.	$A \geq B = C$	
14.	$A \leq B \leq C$	$A \leq C$ ( Either $A < C$ or $A = C$ )
15.	$A = B \leq C$	
16.	$A \leq B = C$	
17.	$A < B > C$	Either 1 or 2 follows if any of the following cases (a, b, c and d) are given as they form a complementary pair. a) 1. $A > C$ 2. $A \leq C$ b) 1. $A \geq C$ 2. $A < C$ c) 1. $A < C$ 2. $A \geq C$ d) 1. $A \leq C$ 2. $A > C$
18.	$A \leq B > C$	
19.	$A < B \geq C$	
20.	$A > B < C$	
21.	$A > B \leq C$	
22.	$A \geq B < C$	

## Syllogism -

These types of questions contain two or more statement and these statements are followed by the number of conclusion. You have to find which conclusions logically follows from the given statements. Try to use Venn Diagrams to solve these questions. You can check the link below to know about the detailed rules of Syllogism -

## Coding - Decoding -

In coding-decoding, actual words are coded in some other terms. Few coded sentences give us the idea of the concerned coded words for each of the actual words. Once all the words are decoded, an answer of any related question can be given in seconds. You can go through the link below to have an in-depth idea of this topic -

## Puzzles / Seating Arrangement -

These form a major topic of the reasoning section. The good part about these topics is that they come in sets. Once you get the arrangement correct, you can easily answer all the questions. You can go through the links below to have a clear idea of the approach that you should follow while solving these question -

## Miscellaneous Questions -

Apart from above mentioned topics, the questions may be asked from following -

- Order and Ranking based
- Blood relations
- Direction based questions

## Input-output

This is basically a topic of logical reasoning where a set of words, numbers or their combination is given in a particular sequence in various steps. You need to identify the pattern in which the initial input given to you is processed in various steps and then apply the same pattern to the statement in the questions and answer accordingly.

## 7. Data Sufficiency



- The first and foremost thing to do is go through the complete question properly first. You'll be able to make out what data is required to arrive at the answer to the question and then proceed to the statements that have been provided.
- Remember, you don't have to solve the question completely.
- Analyse each statement separately first.
- Do not mark the answer after testing just one statement. For instance, even if you conclude that the data in statement 1 is sufficient to answer the question, do not forget to check for the other statement.
- Use the process of elimination of options to narrow down the possible answers.
- Questions on this topic can be from the topics Puzzles, Order & Ranking, Blood Relations, Coding-Decoding, Directions & Distances, Ages & Birth-dates, etc.

## 8. Series

This is one of the easy topics, but it requires a quick understanding of the terms like, right, left, in the middle of and so on. Also, quick calculations (addition, subtraction, multiplication, etc.) are required to solve numerical series. You can easily score 5 marks from this topic by answering these questions attentively.

The series can be of following topics:

1. Numerical Series: It consists of some set of numbers and you have to perform the operations on it as per the requirement of the question.

Eg: 723 316 451 539 876

2. Alphabet Series: It consists of a set of words where you have to apply the operations.

Eg: CUT RAT LIN HUT LAN

Eg: abbc\_ab\_c\_bbc

3. Alphanumeric Series: This series will be consisting of alphabets and numbers only.

Eg: F 6 H 8 W I 9 Y 4 K 3 L 3 T J E 9 1 0 H 1

4. Alphanumeric Symbol Sequence series: It will contain alphabets, numbers, and symbols arranged in a sequence and you have to answer questions based on that.

Eg: 5 P ) S Y 9 6 # 1 D ? 1 ^ Q % d T % Q ! c 4

