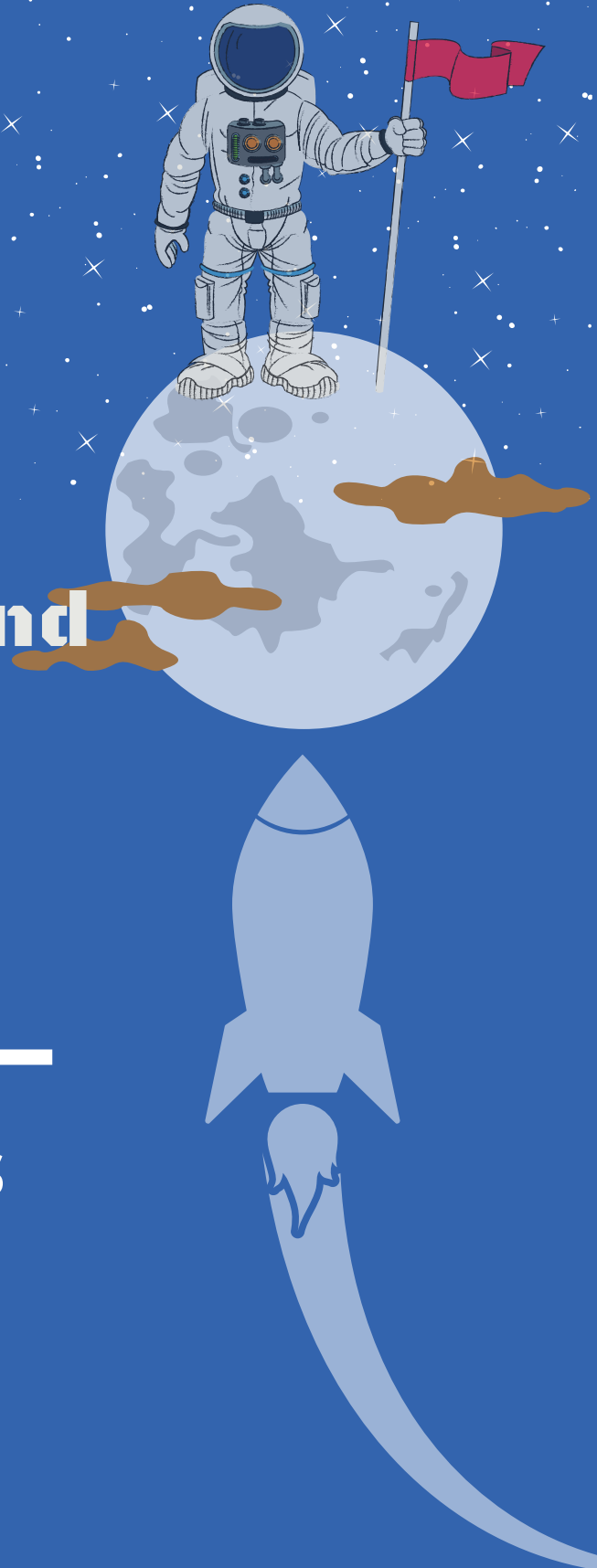




National Assessment of Skill, Talent and Aptitude [NASTA]

Syllabus Guidelines 2022

For Class 11, 12



SUBJECT AREAS & SKILLS ASSESSED



SKILL AREAS

Students are assessed across the following attributes:

- **MECHANICAL REASONING**

It is the ability to understand and apply mechanical concepts and principles to solve problems. It assesses the areas of acceleration, pressure, energy transformation, work, and power, levers, pulleys, screws, springs, tools, etc.

- **MATHEMATICAL REASONING**

It refers to understanding numerical relationships and applying the same to the issue/problem. It also covers areas like ratio, percentage, square and square root, cube and cube root, number sequence, factorization, linear equation, work, and speed, etc.

- **DIGITAL LITERACY**

Digital literacy refers to an individual's ability to find, evaluate, and compose clear information through writing and other media on various digital platforms.

- **SPATIAL APTITUDE**

It is related to the capacity to mentally manipulate actual materials through imagining. This assesses how well a student understands words and their synonyms, spells the word correctly, and identifies the correct meaning of the given idioms/proverbs.

- **LANGUAGE APTITUDE**

It is concerned with a person's ability to use and understand written language. This assesses how well a student understands words and their synonyms, spells the word correctly and identifies the correct meaning of the given idioms/proverbs.

- **PERCEPTUAL APTITUDE**

It refers to a person's ability to quickly, accurately, and meaningfully compare visual information like numbers, objects, pictures, or patterns. It assesses how students compare the paired groups of letters or numbers and identify the similarities or differences.

- **ABSTRACT REASONING**

It is non-verbal and assesses how well students can reason and logically relate geometric shapes or designs. Series and sequences based questions.

- **VERBAL REASONING**

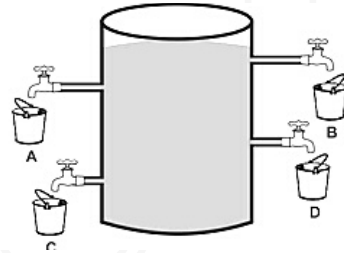
It is the ability to understand and reason using concepts expressed in words. It evaluates a student's ability to think constructively with words.



SAMPLE QUESTIONS

1

MECHANICAL REASONING



In the given figure which one of the buckets will get filled first?

- A. Bucket A
- B. Bucket B
- C. Bucket C
- D. Bucket D

2

MATHEMATICAL REASONING

Points A, B, and C lie on a line and B is between A and C. If $AB = 10$ cm and $BC = 5.2$ cm, what is the distance between the midpoints of AB and BC?

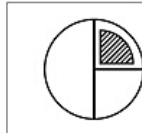
- A. 2.4 cm
- B. 2.6 cm
- C. 5.0 cm
- D. 7.6 cm

3

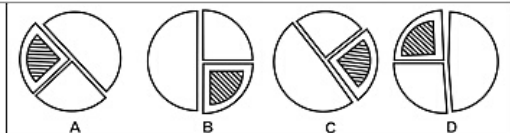
SPATIAL APTITUDE

Find out which options- A, B, C and D from the Answer Figure has parts that can make the Problem Figure.

Problem Figure



Answer Figure



4

VERBAL REASONING

Each sentence has two pairs of words. One word from the second pair is missing. You need to complete the second pair by selecting the correct word from the given options.

_____ is to Bird as Monkey is to _____

- A. Wings ----- Branch
- B. Crow ----- Mammal
- C. Crow ----- Branch
- D. Wings ----- Mammal

5

PERCEPTUAL APTITUDE

The question consists of letters, numbers or letter-number combination. The options have same numbers/letters/letter-number combination, but in different order. Only one of these options is exactly same as the question. Select the correct option which contains the same combination as displayed in question.

L7LL77L2

- a. L7LLL772
- b. L7LL7L72
- c. L7L7LL72
- d. L7LL77L2

NASTA RIGEL

NASTA RIGEL consists of one paper. Details are as follows:

A. PAPER 1

- Paper Language: English, Hindi or other Regional Languages
- Eligibility: All students of CBSE, ICSE/ISC

Duration (90 minutes)			
Class	Subject	No. of Questions	Total Marks
11 to 12 & Pre graduate & Non-collegiate students	Aptitude & Career Advisory Test	80	80

ABOUT CSIR - NIScPR

CSIR-NIScPR came into existence on 14th January 2021 with Dr Harsh Vardhan, then the Hon'ble Minister of Science & Technology and Earth Sciences, announcing the merger of two internationally acclaimed CSIR Institutions namely CSIR-National Institute of Science Communication and Information Resources (CSIR-NISCAIR) and National Institute of Science, Technology and Development Studies (CSIR-NISTADS).

CSIR-NIScPR is one of the premier institutes of the country to provide inputs to policymakers for formulating the policy of Science, Technology, Innovation (STI) and entrepreneurship. Knowledge and Awareness Mapping Platform (KAMP), aimed to develop and map the Scientific Temperament of children, will help nurture innovation and creativity from an early age. The analyses of the mapping data would be used to create inputs for S&T policy so as new generation of scientific leaders are produced in the country.

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