INDIAN AIRFORCE

AGNIVEER VAYU EXAM PATTERN

Name of the group	Subjects	No. of Questions	Total Marks	Exam details
Airmen Science	English	20	70	60 Minutes
	Mathematics	25		
	Physics	25		
Airmen other than Science	Reasoning and General awareness	30	50	45 Minutes
	English	20		
Airmen Science and other than Science	Mathematics	25	100	85 Minutes
	English	20		
	Reasoning and General awareness	30		
	Physics	25		

SYLLABUS- FOR 'AGNIPATH' RECRUITMENT SCHEME

MATHEMATICS

Sr No	Topics Proposed for New Portal
1.	Sets , Relations and Functions
2.	Trigonometric Functions
3.	Inverse Trigonometric Functions
4.	Complex Numbers and Quadratic Equations
5.	Linear Inequalities
6.	Permutations and Combinations
7.	Binomial Theorem
8.	Sequences and Series

SYLLABUS- PHYSICS

Sr No	Topics Proposed for New Portal
1.	Physical World and Measurement
2.	Kinematics
3.	Laws of Motion
4.	Work, Energy and Power
5.	Motion of System of Particles and Rigid Body
6.	Gravitation
7.	Properties of Bulk Matter
8.	Thermodynamics
9.	Behaviour of Perfect Gases and Kinetic Theory of Gases
10.	Oscillations and Waves
11.	Electrostatics
12.	Current Electricity
13.	Magnetic Effects of Current and Magnetism
14.	Electromagnetic Induction and Alternating Current
15.	Electro Magnetic Waves
16.	Optics
17.	Dual Nature of Matter and Radiation
18.	Atoms and Nuclei
19.	Electronic Devices

SYLLABUS- ENGLISH

FOR 'AGNIPATH' RECRUITMENT SCHEME

Topics Proposed for New Portal

(i) **A short passage followed by four questions to test comprehension.**

The questions will be set

1. To judge understanding of the passage
2. To draw inference
3. To judge understanding of vocabulary

(ii) Grammar-1

    1. Subject- Verb concord
    2. Forms of verbs and errors in   the use of verbs, etc.
    3. Sequence of tenses and   errors in the use of tenses.
    4. Transformation of sentences Compound, Complex, Simple, Negative, Affirmative, Comparative degree, Positive degree, Superlativedegree, etc.

(iii) Grammar-2

    1. <u>Formation of Words</u>- Nouns from Verbs and Adjectives, Adjectivesfrom Nouns and Verbs, Adverbs from Adjectives, etc.

    2. Determiners
    3. The Preposition
    4. Nouns and Pronouns
    5. The Adjectives
    6. The Adverb
    7. The Conjunction
    8. The modals
    9. Clauses- Noun clauses,   Adverb clauses of condition   andtime and Relative Clauses.

(iv) Vocabulary

    1. Synonyms and Synonyms in   context
    2. Antonyms and Antonyms in   context
    3. One word substitution
    4. Spelling pitfalls
    5. Simple Idioms/ Phrases
    6. Words often confused/ Selecting the correct word fitting in asentence

(v) Narration (Direct and Indirect)

    1. Commands and requests
    2. Statements (Various tenses)

    3. Question (various forms of questions, tenses, etc)

(vi) Voice (Active and Passive)

    1. Changes required under each tense.
    2. Other condition for transforming Active into Passive

      a) The preposition
      b) Modal Auxiliaries
      c) Infinitive
      d) Participles

(vii) Jumbled Sentences

SYLLABUS RAGA

Reasoning (Verbal and Non- Verbal)

1. Numerical series.
2. Distance and Direction sense Test.
3. Mathematical Operations
4. Number, Ranking & Time Sequence Test.
5. Assign Artificial Values to Mathematical Digit.
6. Inserting Correct Mathematical sign.
7. Human relation.
8. Coding & Decoding
9. Odd man out.
10. Mutual relation problems.
11. Tallest, youngest relations.
12. Dictionary woods.
13. Analogy.
14. Non- Verbal reasoning.
15. Number coding.
16. Number Puzzle.

Mathematics

1. Ratio and Proportion.
2. Average.
3. LCM & HCF.
4. Profit and Loss.
5. Time, Distance and Speed.
6. Percentage.
7. Simplifications of Numbers.
8. Fractions.
9. Area of triangle, Square and Rectangle.
10. Surface Area and volume of Cuboids, Cylinder, Cone and Sphere.
11. Probability.
12. Simple Trigonometry.

General Knowledge and Current Affairs

1. General Science
2. Civics
3. Geography
4. Current Events
5. History
6. Basic Computer Operations