- Paper will have 2 components
    - Quantitative Ability (50 Questions, 60 Minutes)
    - Verbal Ability and Logical Reasoning (50 Questions, 60 Minutes)

1. **<u>Quantitative Ability Syllabus</u>**
    1. **Sets, relations and functions**
        1. Sets
        2. Relations
        3. Functions
        4. Applications
    2. **Number System**
        1. Calculation techniques
        2. Squares and Cubes
        3. Basic Numbers
        4. Integers
        5. Factors and Multiples
        6. HCF and LCM
        7. Fractions and Decimal Fractions
        8. Indices and Surds
        9. Factorial, Last Digits and Remainders
        10. Rational and Irrational Number
        11. Various Number System
        12. Patterns, Relations and Functions
    3. **Algebra**
        1. Fundamental concept of algebra
        2. Algebraic Expression
        3. Polynomial
        4. Operations on Algebraic Expression
        5. Remainder Theorem
        6. Factor Theorem
        7. HCM and LCM of Polynomials
        8. Rational Expressions

9. Basic Facts to Remember
10. Linear Equations
11. Simultaneous Linear Equations
12. Algebraic Methods of Solving Simultaneous equations in two variables

4. **Geometry**
    1. Basic Geometric Concepts
    2. Circles
    3. 3D Geometry
    4. Transformational Geometry
    5. Trigonometry in Geometry
5. **Coordinate Geometry**
    1. Cartesian Coordinate System
    2. Lines and Slopes
    3. Circles in Coordinate Geometry
    4. Conic Sections
    5. Coordinate Geometry in 3D
    6. Applications and Problem Solving
6. **Trigonometry**
    1. Basic Trigonometric Ratios
    2. Trigonometric Identities
    3. Trigonometric Equations
    4. Trigonometric Graphs
    5. Applications of Trigonometry
7. **Mensuration**
    1. Mensuration
    2. 2-D figures (planes)
    3. Rectangles and Squares
    4. Triangles
    5. Parallelogram, Rhombus and Trapezium
    6. Circles
    7. 3-D Figures (Solids)

8. Cuboid and Cube
9. Cylinder and Cone
10. Sphere, Prism and Pyramid

8. **Statistics and Probability**
    1. Descriptive Statistics
    2. Probability Concepts
    3. Probability Distributions
    4. Combinatorics and Permutations
    5. Statistical Inference
    6. Regression and Correlation
    7. Bayes' Theorem
    8. Probability in Decision Making
9. **Logarithm**
    1. Basic Logarithmic Concepts
    2. Logarithmic Equations
    3. Logarithmic Identities
    4. Exponential and Logarithmic Functions
    5. Logarithmic Inequalities
    6. Applications in Compound Interest
    7. Logarithmic Series
    8. Logarithms in Calculus
10. **Differential and Integral Calculus**
    1. Limit
    2. Continuity
    3. Differentiability
    4. Integration

1. **<u>Verbal Ability & Logical Reasoning</u>**

- **<u>Verbal Ability</u>**
    1. **Reading Comprehension**

1. Inference based questions

2. Assumption based questions

2. **Grammar and Language Usage**

3. Noun, Pronoun, Adverb, Verb, Tenses
4. Error Spotting
5. Prepositions, and Conjunctions
6. Direct & Indirect Speech
7. Foreign Words, and Word Usage

3. **Vocabulary**

8. Synonym & Antonym
9. Idioms & Phrases, Spelling Errors
10. Foreign Words, and Word Usage

4. **Sentence Construction**

11. Fill in the blanks
12. Sentence Completion

- **<u>Logical Reasoning</u>**

1. Statement & Assumption
2. Number and Letter Series
3. Statement & Arguments
4. Logical Sequence Series
5. Statement & Conclusion
6. Coding-Decoding
7. Statement & Course of Action
8. Seating Arrangements & Puzzles
9. Statement & Inference
10. Cubes and Dices
11. Directions
12. Arithmetic Reasoning
13. Visual reasoning