SRSMT Scholarship Test

Syllabus for Diploma

Mathematics:
Arithmetic, Geometric and Harmonic Progressions, Binomial expansion, Matrices, Elementary operations, Rank of a matrix, Differentiation of a function, implicit function, parametric function. Successive differentiation. Maxima and Minima, Probability, Set Theory, Partial Differentiation, Definite and indefinite Integration. First order and first degree ordinary differential equations.

Physics:
Units and Dimensions with Dimensional analysis and their Limitation, Motion in one and two dimensions and Newton's Laws of Motion Work and Energy and Conservation Laws of energy, Properties of matter i.e. Elasticity, Surface tension and viscosity in fluent motion, waves and vibration Characteristics of waves and Simple Harmonic Motion, Rotational Motion, Conservation on angular momentum, Gravitation, Newton's law of gravitation, Kepler's law and Satellite, Heat and temperature measurement of temperature and mode of transfer of hear and their laws, geometric optics and simple optical instruments, Simple Law of electrostatics and their use to find the E and potential Capacitors and dielectric constant, Laser, its principle and use, Superconductivity, Conventional and Non-Conventional energy sources.

Chemistry:
Hard and soft water, types of hardness, Disadvantages of hardness of water, it causes and its remedies Brief introduction of the term- Acidity, Basicity, Ionization, Equivalent weight, PH value, Definition of symbol, formula, Valency and Chemical equations.

English:
Grammar: Agreement, Time and Tense, Parallel construction, Relative pronouns, Determiners, Prepositions, Modals, Adjectives, Voice, Transformation, Question tags, Phrasal verbs.
Vocabulary: Synonyms, Antonyms, Odd Word, One Word, Jumbled letters, Homophones, Spelling, Contextual meaning, Analogy.
Reading Comprehension: Content/ideas, Vocabular, Referents, Idioms/Phrases, Reconstruction (rewording).
Composition: Rearrangement, Paragraph Unity, Linkers/Connectives.