

**SYLLABUS FOR ARTIFICER APPRENTICES  
AND SENIOR SECONDARY RECRUITS**

<b><u>SL NO</u></b>	<b><u>SCIENCE</u></b>	<b><u>MATHEMATICS</u></b>	<b><u>ENGLISH</u></b>	<b><u>GENERAL AWARENESS</u></b>
0.1	Physical World and Measurement, Kinematics, Laws of Motion, Work, Energy and Power, Motion of System of Particles and Rigid Body/ Gravitation	Relations and Functions, Logarithms, Complex Numbers, Quadratics Equations, Sequences and Series, Trigonometry	Passage, Preposition, Correction of sentences, Change active to passive/ passive to active voice	Culture and Religion, Geography : Soil, Rivers, Mountains, Ports, Inland Harbours, Freedom Movement
02.	Mechanics of Solids and Fluids, Heat Thermodynamics, Oscillations, Waves, Electrostatics, Current Electricity	Cartesian System of Rectangular Coordinates, Straight Lines Family of Straight Lines, Circles	Change direct to indirect/indirect to direct, Verbs/Tense/Non Finites, Punctuation	Sports : Championships/ Winners/ Terms/ No of Players, Defence, Wars and Neighbours, current Affairs
03.	Magnetic Effect of Current and magnetism, Electromagnetic Induction and Alternating Current, Electromagnetic Waves	Conic Section, Permutations and Combinations, Vectors, Exponential and Logarithmic Series, Sets and Set Theory, Statistics	Substituting phrasal verbs for expression, Synonyms and Antonyms, Meanings of difficult words	Important National Facts about India-Heritage, Arts, Dance, History, National-Languages, Bird, Animal, Song, Flag, Monuments, Capitals & Currencies
04.	Optics, Dual Nature of Matter and Radiations, Atomic Nucleus/ Solid and Semi-Conductor Devices, Principles of Communication	Introduction to Three-Dimensional Geometry, Probability Function, Limits and Continuity, Differentiation, Applications of Derivatives	Use of adjective, Compound preposition, Determiners (use of a, the, any etc), Use of pronouns	Common Names, Full forms and Abbreviations, Discoveries, Diseases and Nutrition, Award and Authors, Eminent Personalities
05.	Metals and Non Metals, Organic Chemistry, Food, Nutrition and Health, Physiology and Human Diseases, Computer Science	Indefinite Integrals Binomial Theorem, Matrices, Determinants, Definite Integrals		Spatial, Numerical, Reasoning & Associative Ability, Sequences, Spellings Unscrambling, Coding and Decoding