Mathematics

Sr No.	Topics	Sub Topics
1	Arithmetic	Arithmetical terms and signs
2		Methods of multiplication and division
3		Fractions and decimals
4		Factors and multiples
5		Weights, measures and conversion factors
6		Ratio and proportion
7		Averages and percentages
8		Areas and volumes
9		Squares, cubes, square and cube roots
10	Algebra	Evaluating simple algebraic expressions
11		Simple algebraic fractions
12		BODMAS
13		Linear equations and their solutions
14		Indices and powers, negative and fractional indices
15		Simultaneous equations
16		Second degree equations with one unknown
17		Logarithms
18	Geometry	Simple geometrical constructions
19		Graphical representation
20		Simple trigonometry
21		Trigonometrical relationships
22		Use of tables
23		Rectangular and polar coordinates

Physics

Sr No.	Topics	Sub Topics
24	Matter and Atomic Structure	Nature of matter
25		Structure of atoms
26		States: solid, liquid and gaseous
27		Changes between states
28	Mechanics	**Statics:** Forces, moments
29		**Statics:** Representation as vectors, Centre of gravity
30		**Statics:** Theory of stress, strain and elasticity
31		**Kinetics:** Uniform motion in a straight line
32		**Kinetics:** Motion under constant acceleration (motion under gravity)
33		**Kinetics**: Uniform circular motion (centrifugal/centripetal forces)
34		**Dynamics:** Mass, Force
35		**Dynamics:** work, power, energy (potential, kinetic and total energy)
36		**Dynamics**: Momentum, conservation of momentum
37		**Fluid Dynamics:** Specific gravity and density, Viscosity
38		**Fluid Dynamics**: Archimede's Principle
39	Thermodynamics	Thermometers and temperature scales
40		Heat transfer through convection, radiation and conduction
41	Optics	Speed of light
42		Reflection, Refraction

43		Spherical mirrors
44	Wave motion and sound	**Wave motion:** Mechanical waves, sinusoidal wave motion
45		**Sound:** speed of sound
46	Electrostatics and current electricity	Static electricity and distribution of electrostatic charges; Electrostatic laws of attraction and repulsion
47		Units of charge, Coulomb's Law
48		Conduction of electricity in solids, liquids, gases and a vacuum
49		The following terms, their units and factors affecting them: voltage, current, resistance, conductance, charge

English

Sr No.	Topics	Sub Topics
50	Grammar and Syntax	Tenses
51		Parts of speech
52		Sentence structure
53		Punctuation
54		Direct and Indirect Speech
55	Vocabulary and Word Usage	Synonyms and Antonyms
56		Idioms and Phrases
57		Word Formation
58		Prefixes and Suffixes
59		Compound Words
60		Homophones and Homonyms
61		Contextual Vocabulary
62	Reading Comprehension	Passage Analysis
63		Vocabulary in Context
64	Verbal Reasoning	Analogies
65		Sentence Completion
66		Logical Deductions
67		Critical Reasoning

Cognitive domain and Analytical reasoning

Sr No.	Topics	Sub Topics
68	Cognitive Skills	Memory and Recall
69		Understanding and Comprehension
70	Analytical Reasoning	Logical Analysis
71		Pattern Recognition
72		Problem Solving
73		Critical Thinking