## 12.1 Indicative Syllabus for Computer based Written examination (Tier-I):

General Intelligence: It would include questions of both verbal and non-verbal type. The test will include questions on Semantic Analogy, Symbolic operations, Symbolic/Number Analogy, Trends, Figural Analogy, Space Orientation ,Semantic Classification, Venn Diagrams, Symbolic/Number Classification, Drawing inferences ,Figural Classification ,Punched hole/pattern-folding & unfolding , Semantic Series, Figural Pattern – folding and completion, Number Series, Embedded figures, Figural Series, Critical Thinking, Problem Solving, Emotional Intelligence, Word Building, Social Intelligence, Coding and decoding, Other sub-topics, if any Numerical operations.

English Language: Spot the Error, Fill in the Blanks, Synonyms/Homonyms, Antonyms, Spellings/ Detecting Mis-spelt words, Idioms & Phrases, One word substitution, Improvement of Sentences, Active/Passive Voice of Verbs, Conversion into Direct/Indirect narration, Shuffling of Sentence parts, Shuffling of Sentences in a passage, Cloze Passage, Comprehension Passage.

## Quantitative Aptitude:

## Arithmetic:

Number Systems: Computation of Whole Number, Decimal and Fractions, Relationship between numbers

Fundamental arithmetical operations: Percentages, Ratio and Proportion, Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Mixture and Allegation, Time and distance, Time and work.

Algebra: Basic algebraic identities of School Algebra and Elementary surds (simple problems) and Graphs of Linear Equations.

Geometry: Familiarity with elementary geometric figures and facts:

Triangle and its various kinds of centres, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles.

Mensuration: Triangle, Quadrilaterals, Regular Polygons, Circle, Right Prism, Right Circular Cone, Right Circular Cylinder, Sphere, Hemispheres, Rectangular Parallelepiped, Regular Right Pyramid with triangular or square Base

Trigonometry: Trigonometry, Trigonometric ratios, Complementary angles, Height and distances (simple problems only) Standard Identities like sin<sup>2</sup>0 + Cos<sup>2</sup>0=1 etc.,

Statistical Charts: Use of Tables and Graphs: Histogram, Frequency polygon, Bardiagram, Pie-chart

General Awareness: Questions are designed to test the candidate's general awareness of the environment around him and its application to society. Questions are also designed to test knowledge of current events and of such matters of everyday observation and experience in their scientific aspect as may be expected of an educated person. The test will also include questions relating to India and its neighboring countries especially

pertaining to History, Culture, Geography, Economic Scene, General policy and scientific research.