15.9. Indicative Syllabus for Computer Based Examination (CBE):

15.9.1. Matriculation level

(A) General Intelligence: The test paper will consist of questions of **non-verbal type**. The test will include questions on similarities and differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, relationship concepts, discriminating observations, figure classification, arithmetical number series, non-verbal series etc. It will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions.

(B) General Awareness: Questions will be designed to test the candidate's general awareness of environment and its application to the society. The questions will also be designed to test the knowledge of current affairs/events and of such matters of everyday observations and experience in their scientific aspects as may be expected of an educated person. The test will also include questions relating to India & its neighbouring countries especially pertaining to History, Culture, Geography, Sports, Economic scene, General Polity including Indian Constitution, and Scientific Research etc. The questions will be of such standard that they do not require special study of any discipline.

(C) Quantitative Aptitude: This paper will include questions on problems relating to Number Systems, Computation of Whole Numbers, Decimals & Fractions and relationship between Numbers, Fundamental arithmetical operations, Percentages, Ratio & Proportion, Averages, Interest, Profit & Loss, Discount, use of Tables & Graphs, Mensuration, Time & Distance, Ratio & Time and Time & Work, etc.

(D) English Language: The test paper will consists of questions designed to test the candidate's understanding of Basics of English Language, its vocabulary, grammar, sentence structure, synonyms, antonyms & its correct usage etc. and also their writing ability would be tested.

15.9.2. Higher Secondary (10+2) level

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

(B) General Awareness: The test paper would consist of questions to test the candidate's general awareness of environment and its application to the society. The questions will be designed to test knowledge of current affairs/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 neighbouring countries especially pertaining to History, Culture, Geography, Economic Scene, General polity and scientific research.

(C) Quantitative Aptitude: The test paper will consist of questions on Arithmetic, Number Systems, Computation of Whole Number, Decimal and Fractions, Relationship between numbers, Fundamental **Arithmetical** Operations - Percentage, Ratio & Proportion, Square roots, Averages, Profit and Loss, Discount, Interest (Simple and Compound), Partnership Business, Mixture & Allegation, Time & distance, and Time & work; **Algebra** - Basic algebraic identities of School Algebra & Elementary surds (simple problems) and Graphs of Linear Equations; **Geometry -** Familiarity with elementary geometric figures and facts, Triangle and its various kinds of center, 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, Parallel piped, Regular Right Pyramid with triangular or square base; **Trigonometry** - Trigonometry, Trigonometric ratios, Complementary angles, Height and distances (simple problems only), Standard Identities etc.; **Statistical Charts:** Use of Tables and Graphs, Histogram, Frequency polygon, Bar-diagram, Pie-chart etc.

(D) English Language: The test paper will consist of questions relating to 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 etc.

15.9.3. <u>Graduation & above level:</u>

(A) General Intelligence: The test paper would include the questions of **both Verbal and Non-verbal type**. It would consist of questions on analogies, similarities and differences, space visualization, spatial orientation, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning and figural classification, arithmetic number series, non-verbal series, coding & decoding, statement conclusion, syllogistic reasoning etc. The topics includes Semantic Analogy, Symbolic/Number Analogy, Figural Analogy, Semantic classification, Symbolic/Number Classification, Figural Classification, Semantic Series, Number Series, Figural Series, Problem Solving, Word Building, Coding and Decoding, Numerical Operations, symbolic Operations, Trends, Space Orientation, Space Visualization, Venn Diagrams, Drawing inferences, Punched hole / pattern – folding & Unfolding, Figural Pattern – folding and completion, Indexing, Address matching, Date & city matching, Classification of Centre codes/roll numbers, Small & Capital letters/numbers coding, decoding and classification, Embedded Figures, Critical thinking, Emotional Intelligence, Social Intelligence, Other sub-topics, if any.

(B) General Awareness:- The test paper would be consist of questions to test the candidate's general awareness of environment and its application to the society. The questions will be designed to test knowledge of current events and of such matters of every day observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India & its neighbouring countries especially relating to History, Culture, Geography, Economic Scene, General Polity & Scientific Research.

(C) Quantitative Aptitude: The questions will be designed to test the ability of appropriate use of numbers and number sense of the candidate. The scope of the test will be computation of whole numbers, decimals, fractions and relationships between numbers, Percentage, Ratio & Proportion, Square roots, Averages, Interest, Discount, Partnership Business, Profit and Loss, Mixture & Allegation, Time & distance, Time & Work, Basic algebraic identities of School Algebra and Elementary surds, Graphs of Linear Equations, Triangle and its various kinds of Centre, Congruence and similarity of triangles; Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles, 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, Trigonometric ratio, Degree and Radian Measures, Standard Identities, Complementary angles, Heights and Distances, Histogram, Frequency polygon, Bar diagram and Pie chart.

(D) English Language: The questions of test paper would be designed to test the Candidates' ability to understand the correct English, basic comprehension and their writing ability etc.

The questions in Part-A, Part-B and Part-D will be of level commensurate with the essential qualification viz. Graduation, whereas the questions in Part-C will be of 10th standard.