BSC Data Science Entrance Exam Syllabus
(Online Entrance Exam) For Academic Year 2023-2024

Section-A

1. **General and Quantitative Aptitude:** Coordinate Geometry, Profit and Loss, Algebra, Data Tables, Data Charts, Percentages, Logarithm etc.

2. **Logical and Abstract Reasoning:** Blood Relations, Seating Arrangement, Analogy, Series, Syllogism, Passage Conclusion, Family Relation, Cause & Effect, Syllogism, Statement, Assumptions, Reasons, Analogies, Direction, Series Completion

3. **English Verbal Ability:** Spotting Errors, Comprehension, Selecting Words, Ordering of Words in a Sentence, Sentence Improvement, Antonyms, Synonyms. Reading Comprehension, Vocabulary, Para jumble, Grammar, Fill in the Blanks, Para Completion etc.

Section-B

1. **Maths:** Probability, Random experiment, outcomes, and associated sample space, events, mutually exclusive and exhaustive events, impossible and certain events. Union and Intersection of events. Complementary, elementary, and composite events. Definition of probability—classical and statistical—examples. Elementary theorems on probability—simple problems. Conditional probability, Bayes' theorem—simple problems. Random variable as function on a sample space. Binomial distribution, examples of random experiments giving rise to Binomial distribution.

2. **Science:** Physical Properties and States of Matter, Modes of transference of Heat, Mass, Weight, Volume, Sound waves and their properties, Simple musical instruments, Rectilinear propagation of Light, Density and Specific Gravity, Reflection and refraction, Principle of Archimedes, Spherical mirrors and Lenses, Pressure Barometer, Human Eye, Motion of objects, Natural and Artificial Magnets, Velocity and Acceleration, Properties of a Magnet, Newton's Laws of Motion, Earth as a Magnet, Force and Momentum, Static and Current Electricity, Parallelogram of Forces, Conductors and Non-conductors, Stability and Equilibrium of bodies, Ohm's Law, Gravitation, Simple Electrical Circuits, Elementary ideas of work, Heating, Lighting, Preparation and Properties of Hydrogen, Oxygen, Nitrogen and Carbon

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Dioxide, Oxidation and Reduction, Acids, bases and salts, Carbon— different forms, Physical and Chemical Changes, Fertilizers—Natural and Artificial, Elements, Mixtures and Compounds, Elementary ideas about the structure of Atom, Symbols, Valency Properties of Air and Water.

3. **Computer:** Networking, Internet, World Wide Web, web servers, web clients, web sites, web pages, web browsers, blogs, newsgroups, HTML, web address, e-mail address, downloading and uploading files from a remote site. Internet protocols: TCP/IP, SMTP, POP3, HTTP, HTTPS. Remote login and file transfer protocols: SSH, SFTP, FTP, SCP, TELNET, SMTP, TCP/IP. HTML, Introduction to web page designing using HTML: create and save an HTML document, access a web page using a web browser. HTML tags: html, head, title, body, (attributes: text, background, bgcolor, link, vlink, alink), br (break), hr (horizontal rule), inserting comments, h1..h6 (heading), p (paragraph), b (bold), i (italics), u (underline), ul (unordered list), ol (ordered list), and li (list item). Description lists: dl, dt and dd. Attributes of ol (start, type), ul (type).