MDC-118: MATHEMATICS IN DAILY LIFE
(Contact Hours-45, Credits-3)

Learning Objectives: To introduce thebasic mathematical concepts that are used in different aspects of our daily life.

Unit I : Arithmetical Ability (15 hours)

Unit conversion (length, mass, time); Number System; Decimal Fractions; Square Roots and Cube Roots; Problems on Numbers; Problems on Ages; Use of concepts of HCF and LCM; Percentage; Ratio and Proportion; Time and Distance; Allegations or Mixture; Area, Volume, Surface Areas; Trigonometric ratios; Height and Distance in our everyday life.

Unit II : Banking Ability (15 hours)

Interest - Concept of Present value and Future value, Simple interest, Compound interest, Nominal and Effective rate of interest; Depreciation and discount; Annuity - Ordinary annuity, sinking fund, annuity due, present value and future value of annuity; Equated Monthly Installments (EMI) by Interest of Reducing Balance and Flat Interest methods - examples and problems.

Unit III : Data Interpretation (15 hours)

Probability; Classification of data - Frequency distribution, Tabulation; Graphical representation of data - Bar Graphs, Pie Charts, Line Graphs; Calendar and Clocks.

Course Outcomes : After this course students will be able to understand everyday banking transactions, identify patterns and relationships. Students will be able to perform basic calculations and measurement and also understand about ratios and proportions.

Notes: A candidate must obtain the minimum pass marks (as per NEHU Rule) to clear the course.

Suggested Readings:

1. Quantitative Aptitude, R.S. Aggarwal, S. Chand Publishing (2022).
2. Fundamentals of Business Mathematics, M.K. Bhowal, Asian Books (2009).
3. Fundamentals of Mathematical Statistics, S.C. Gupta, V.K. Kapoor, Sultan Chand and Sons (2020).
4. The Mathematics of Everyday Life, A.S. Posamentier, C. Spreitzer, Prometheus Books, Illustrated Edition (2018).