

**FACULTY OF SCIENCE**

**DEPARTMENT OF MATHEMATICS**

**Ngbu (DU)C01 Mathematics for Competitive Examinations**

**Learning Objective (LO)**

To introduce concepts of mathematics with emphasis on analytical ability and computational skill needed in competitive examinations.

**Course Outcome**

- By the end of the course, students will be able to face the Mathematics part of competitive examinations easily.

**Unit I Problems on General Arithmetic**

Problems of ages – Ratio and proportions -Inverse ratio-properties (Addendo, subtrahendo, componendo & dividendo) -ratio of four numbers -increasing and decreasing order of fractions.

**Unit II**

Percentages - Gain and loss percent's - Partnership problems.

**Unit III Time, Distance and Work Time**

and work – Time and distance. **Unit IV**

**Commercial Arithmetic**

Simple interest - Compound interest – Stocks and Shares.

**Unit V Data Interpretation**

Tabulation – Bar graphs and Pie charts – Line Graphs.

**Text Book:**

R.S. Agarwal, Content and treatment as in the book Quantitative Aptitude, S. Chand & Co, New Delhi, 2015.

Unit – I      Sections 1.8 and 1.12

Unit – II      Sections 1.10, 1.11 and 1.13

Unit – III Sections 1.15 and 1.17

Unit – IV Sections 1.21, 1.22 and 1.29

Unit – V Sections 2.36 to 2.38

**Supplementary Reading:**

Abhijit Guha, Quantitative Aptitude for Competitive Examinations, Tata McGraw –Hill Pub. Co. Ltd. New Delhi, IV Edition, 2011.

Edgar Thorpe, Course in Mental Abilities and Quantitative Aptitude for Competitive Examinations, Tata McGraw Hill Pub. Co. Ltd. New Delhi, II Edition, 2008.

RSN Pillai and A. Bagavathi, Statistic, S.Chand and Co., 7th Revised Edition, 2008.