

FACULTY OF SCIENCE

Department of Mathematics

Value Added Course:

Semester-II (Even) VASC-011: Mathematics For Competitive Examinations

Credits: 3

Hours: 3

Learning Objective (LO): To introduce concepts of mathematics with emphasis on analytical ability and computational skill needed in competitive examinations.

Unit-1: 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-2:

Percentages - Gain and loss percents - Partnership problems.

Unit-3: Time, Distance and Work:

Time and work – Time and distance.

Unit-4: Commercial Arithmetic:

Simple interest - Compound interest – Stocks and Shares.

Unit -5: 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:

1. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, Tata McGraw –Hill Pub. Co. Ltd. New Delhi, IV Edn., 2011.
2. Edgar Thorpe, Course in Mental Abilities and Quantitative Aptitude for Competitive Examinations, Tata McGraw Hill Pub. Co. Ltd. New Delhi, II Edn., 2008.
3. RSN Pillai and A. Bagavathi, Statistic, S.Chand & Co., 7th Revised Edition, 2008.

Course Outcome:

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