Add on Courses

QUANTITATIVE TECHNIQUES FOR COMPETITIVE EXAMINATIONS

Department: Mathematics   **Course Coordinator**: Treesa Maria Kuriakose

Fee:Rs.500/-   **Duration:** 36 hrs   **Student Intake**: 40

Objectives of the Course:

To prepare students of all streams to approach competitive examinations. Detailed explanation and short cut method for solving problems are to be introduced to students, so that they can acquire better understanding of concepts and problem solving skill.

Outcome:

Apply   quantitative reasoning and mathematical analysis methodologies to understand and solve problems. Students comprehend, work with, and apply general mathematical techniques and models to different real life situations, not just plug problem-specific data into a given formula.

Content/Syllabus:

Module 1 - 8 Hours

Types of numbers, Multiplication and division of numbers, Permutations and combinations – simple applications, Trigonometry introduction, Values of trigonometric ratios of 0^0, 30^0, 45^0, 60^0 & 90^0, Heights and distances – Simple cases - (application of sinx, cosx, tanx, and their reciprocals only).

Module 2 - 10 Hours

Probability – Introduction – Sample spaces and events, Simple examples like tossing coin, tossing die etc., Number series, Odd man out, Number puzzles, Clock and calendar, Races and games, Inequality.

Module 3 – 8 Hours

HCF and LCM of numbers, Fractions, Squares and square roots, cube and cube roots, simplifications, Percentage, Profit and loss, Simple interest , Compound interest.

Module 4 - 10 Hours

Ratio and Proportion, Time and work, Partnership, Mixture, Work and wages, Time and distance, Elementary mensuration – Area and perimeter of polygons, Elementary Algebra.

REFERENCES:

1. M Tyra & K Kundan –Concepts of Arithematic, BSC publishing company Pvt. Ltd.
2. S K Sinha, S Satyanarayan, Col. J S Rana(Retd.)-The Complete Reference Manual for CMAT, Arihant Publications Ltd.