AOMM502: APPLICABLE MATHEMATICS

Contact Lecture Hours: 72

Credits: 3

MODULE 1 - 18 Hours

Types of numbers, Quadratic equations (Solution of quadratic equations with real roots only), Logarithms – All rules without proof, Multiplication and division of numbers, Evaluating expressions of the form $x^{p/q}$, x any real number, p & q are integers, 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). Two dimensional geometry- Introduction, plotting points and drawing graph of the lines of the form ax + by + c = 0.

MODULE 2 -18 Hours

Probability – Introduction – Sample spaces and events, Simple examples like tossing coin, tossing die etc., Logical Reasoning- Number series, Letter series, Distance and directions, Odd man out, Number puzzles, Blood relations, Logical and analytical reasoning.

No core text book is needed for Modules 1 & 2

MODULE 3– 18 Hours

HCF and LCM of numbers, Fractions, Squares and square roots, cube and cube roots, simplifications, Ratio and Proportion, Percentage, Profit and loss, Simple average (No Weighed average)

(Sections – 2, 3, 5, 6, 7, 9, 10, 11, 13)

MODULE 4 - 18 Hours

Simple interest, Compound interest, Time and work, Work and wages, (Exclude Pipes and Systems from the core reference), Time and distance, Elementary mensuration – Area and perimeter of polygons, Elementary Algebra, (Simplifications of algebraic expressions)

(Sections - 14, 15, 17, 18, 21, 22, 23)

CORE REFERENCE

M. TYRA, & K. KUNDAN, CONCEPTS OF ARITHMETIC, BSC PUBLISHING COMPANY PVT.LTD. C – 37, GANESH NAGAR, PANDAV NAGAR COMPLEX, DELHI – 110092

Question Paper Pattern

The following guidelines shall be followed during question paper setting.

	Section A Very Short Answer	**Section B Short Answer**	**Section C Short Essay**	**Section D Essay**
Module 1	3	3	2	1
Module 2	2	3	3	1
Module 3	2	3	2	1
Module 4	3	3	2	1
Total	**10**	**12**	**9**	**4**