ALIGARH MUSLIM UNIVERSITY, ALIGARH

FACULTY OF ENGINEERING & TECHNOLOGY

SYLLABUS FOR

MASTER OF TECHNOLOGY (M.TECH.) – ARTIFICIAL INTELLIGENCE

VERBAL ABILITY AND AALYTICAL REASONIG : English Grammar, Synonyms, Antonyms, Sentence Completion, Verbal Analogies, Word Groups, Reading Comprehension, Critical Reasoning and Verbal Deduction. Blood Relations, Proposition, Direction Sense, Coding-Decoding, Assumptions, Puzzles, Binary Logic, Tables, Pie Charts, Bar Diagrams, Pattern Perception.

MATHEMATICAL AND STATISTICAL CONCEPTS :   Matrices, determinants, system of linear equations, eigenvalues and eigenvectors, Vector spaces, Matrix Factorization Permutation and combination, Progression Ratio, Proportion and variation, Random variables; Uniform, normal, exponential, Poisson and binomial distributions; Mean, Median, Mode and standard deviation; Conditional probability and Bayes theorem; Linear regression analysis.

DATA STRUCTURES AND ALGORITHMS :   Basic data structures: Arrays-Linear and multi-dimensional, Linked lists, stacks, queues, trees, Searching and Sorting algorithms.

PROGRAMMING CONCEPTS :   Programming in C/C++, Data types and Basic statements, Variable, Storage Classes, Scope of a variable, Operators and Expressions, Decision Making Statements, Conditional Expressions, Control Statements, Functions, Macros, Arrays Operations, String Operations, Input Output statements, Type Casting, pointers, Recursion, Structure, Union, File Handling.