

S.G.M. College of Commerce and Management
Business Mathematics-I- BBA-ITM
Semester-I

Sr.No	Topic	Sessions required
1	Set Theory and Matrices:	12
	-Concept of numbers (N, Z, Q, R), sets, subsets ,equality of two sets, null set, universal set	02
	-Complement of a set, union and intersection of sets	02
	-Difference of two sets, venn diagram	02
	-De Morgan laws and Distributive laws (examples)	02
	-Types of matrices- row, column, square, null, identity etc..	01
	-Transpose of a matrix	01
	-Examples of Equality, addition, subtraction of matrices, scalar multiplication of two matrices and Multiplication of two matrices	02
2	Permutations and Combinations:	12
	- Meaning, Fundamental principle of counting	02
	- Theorem based on permutation and combination (without proof)	02
	- Permutations of things not all different	02
	- Permutations when repetition is allowed	01
	- Circular permutations	02
	- Examples of permutation and combination	03
3	Derivatives and Applications of derivatives	12
	- Derivatives of explicit	03
	- Rules of differentiation(without proof),	01
	-Examples based on addition, subtraction, multiplication and division rules.	03
	-second order derivatives	01
	- Concept of maxima and minima, examples based on economic theory(demand, supply, consumption, revenue and cost function)	04
4	Mathematics in finance:	09
	-Simple and Compound interest, nominal and effective rates of interest	03
	-Concept of present value and amount of a sum, Annuity(only for a fixed period of time)	03
	-sinking funds(with equal payments and equal time intervals)	03
	Total:	45