Maharashtra State Board of Secondary & Higher Secondary School, Pune

Department of Mathematics

Subject: Mathematics & Statistics (88)
Standard: Eleven
Faculty: Commerce

Syllabus

XI Mathematics Paper-II (Theory & Practical)

Theory Index (Part II)

Sr. No.	Unit/Topic	Weightage
1	Partition Values	06
2	Measures of Dispersion	06
3	Skewness	05
4	Bivariate Frequency Distribution and Chi Square Statistic	05
5	Correlation	05
6	Permutations and Combinations	08
7	Probability	07
8	Linear Inequations	08
9	Commercial Mathematics	08

Practical Index

Sr. No.	Practical's Name
1	Sets and Relations
2	Partition Values
3	Functions
4	Measures of Dispersion
5	Complex Numbers
6	Skewness
7	Bivariate Frequency Distribution
8	Sequences and Series
9	Correlation
10	Locus and Straight Line
11	Applications of Determinants
12	Permutations and Combinations
13	Limits
14	Continuity
15	Probability
16	Linear In equations
17	Differentiation
18	Applications of Derivatives to Economics
19	Commercial Mathematics : Percentage, Profit and Loss
20	GST, Shares and Dividend

Syllabus (Part II)

Sr. No.	Name of the Topic	Scope of Syllabus
1	Partition Values	• Partition values - Quartiles, deciles, percentiles. • Graphical location of partition values
2	Measures of Dispersion	• Meaning and Definition of Dispersion • Absolute and Relative Measures of Dispersion • Range of data. • Semi Inter Quartile Range / Q.D. • Variance and Standard Deviation • Coefficient of Variation
3	Skewness	• Skewness • Measures of skewness
4	Bivariate Frequency Distribution and Chi Square Statistic	• Meaning of bivariate frequency distribution • Classification and Tabulation of bivariate data • Categorical variables • Contingency table • Chi square statistic
5	Correlation	• Concept of Correlation • Methods of computing correlation • Properties of Covariance • Karl Pearson's coefficient of correlation • Scatter diagram • Interpretation
6	Permutations and Combinations	• Fundamental principles of counting • Factorial function • Permutations • Combinations
7	Probability	• Types of events • Algebra of events • Probability • Addition theorem • Conditional Probability

8	Linear Inequations	• Linear inequality. • Solution of linear inequality. • Graphical representation of solution of linear inequality in one variable. • Graphical solution of linear inequality of two variables. • Solution of system of linear inequalities in two variables.
9	Commercial Mathematics	• Percentage • Profit and Loss • Interest (Simple and Compound) • Depreciation • Partnership • GST • Shares and Dividends