

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Com.**  
**Semester: II**  
**Syllabus with Effect From: November/December-2018**

<b>Paper Code: UB02CCOM23</b>	<b>Total Credit: 3</b>
<b>Title Of Paper: Business Mathematics &amp; Statistics - II</b>	

**Objective:** 1. To enhance analytical ability in students for processing data  
2. To Familiarize students with applications of Statistical techniques in business decision making.

Unit	Description of Detail	Weighting(%)
<b>I</b>	<b>Permutations and Combinations</b> Meaning, Fundamental Principles of Counting, Theorem based (without proof) on permutation and combination, Permutations when repetition is allowed, Circular permutations, Examples of Permutation and combination.	<b>25%</b>
<b>II</b>	<b>Co-ordinate Geometry</b> Cartesian Co-ordinate System, Distance between two points, slope of line, slopes of Parallel and perpendicular lines, Equations of a line for: - Two Point Form – Point Slope form – Intercept form – Two Intercept Form	<b>25%</b>
<b>III</b>	<b>Linear Programming Problem</b> LPP: Meaning, nature, limitations of LP, uses of LP, Definitions: solution, constraints, BFS, FS, objective functions solution of LPP by Graphical Method -Transportation Problem – N-W corner rule, Matrix Minima Method, Vogel's Approximation Method (Including unbalanced problem)	<b>25%</b>
<b>IV</b>	<b>Derivatives and Applications of derivatives</b> Derivatives of explicit, Composite and implicit functions, Derivatives of exponential and arithmetic functions, Rules of differentiation (without proof), Higher order derivatives, maxima and minima of a function in economic theory (demand, supply, consumption, revenue and cost function), Equilibrium price.	<b>25%</b>

**Basic Text & Reference Books:-**

- Sancheti & Kapoor: Statistics: Theory, Methods and Applications, Sultan Chand & sons, New Delhi
- Kapoor, V.K.: Business Mathematics, Sultan Chand and Sons, New Delhi
- Soni, R.S.: Business Mathematics, Pitamber Publishing Ho