

**SARDAR PATEL UNIVERSITY**  
**Programme: BCOM**  
**Semester: II**  
**Syllabus with effect from : November 2011**

<b>Paper Code:</b> UB02CCOM04	<b>Total Credit: 3</b>
<b>Title Of Paper:</b> Business Mathematics - II	

Unit	Description in detail	Weighting (%)
<b>1</b>	<b>Differentiation and Applications</b> Definition of derivative, working rules of derivative (without proof), Derivatives of explicit, composite and implicit functions (without involving trigonometric functions), Second derivative, Maxima and Minima of a function	<b>25 %</b>
<b>2</b>	<b>Permutations and Combinations</b> Meaning, Fundamental principle of counting, Theorem based on permutation and combination (without proof), Permutations of things not all different, Permutations when repetition is allowed, Circular permutations, Examples of permutation and combination	<b>25 %</b>
<b>3</b>	<b>Co-ordinate Geometry</b> Distance between two points in $R^2$ , Slope of a line, Slopes of parallel and perpendicular lines, Area of a Triangle, area of a quadrilateral, Slope of a line, standard equations of a line, General form i) $\frac{y - y_1}{y_1 - y_2} = \frac{x - x_1}{x_1 - x_2}$ ii) $y = m x + c$ iii) $y - y_1 = m(x - x_1)$ iv) $\frac{x}{a} + \frac{y}{b} = 1$	<b>25 %</b>
<b>4</b>	<b>Linear Programming Problems</b> Introduction, meaning, nature and scope of Operation Research, Linear programming problem, Applications of LPP, Methods of solving LPP, Graphical method (without involving unbounded solution) Assignment problems- nature, meaning, Hungarian method of solving assignment problems.	<b>25 %</b>

**Basic Text & Reference Books**

- Allen R.G.D.: Basic Mathematics, Macmillan, New Delhi.
- Kapoor, V.K.: Business Mathematics, Sultan Chand and sons, New Delhi.
- Loomba, Paul: Linear Programing, Tata Mc Graw Hill, New York.
- Sharma J.K.: Mathematics for Management and computer application, Galgotia Publications Pvt. Ltd, New Delhi.
- Soni, R.S.: Business Mathematics, Pitamber publishing House.
- Vohra N.D.: Quantitative Techniques in Management, Tata McGraw Hill, New Delhi.

