


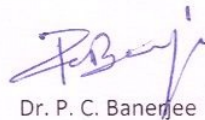
Program: <b>Bachelor's Degree with Honours/Hons. with Research</b> Class: <b>UG</b>		Year: <b>Fourth</b>	Semester: <b>VIII</b>
Subject: <b>Mathematics</b>			
Course Code: <b>MN-2D</b>		Course Title: <b>Operations Research</b>	
Course Learning Outcomes: This course will enable the students to: a) solve problems related to linear programming problems. b) solve problems related to transportation & assignment problems. c) Solve real life problems using replacement model and sequencing.			
Credit: <b>4 (Theory)</b>		<b>Compulsory</b>	
Full Marks: <b>75</b>		Time: <b>3 Hours</b>	
<b>Unit</b>	<b>Content</b>		<b>Hours</b>
<b>I</b>	Convex sets in $R^2$ and their properties, L.P.P., problem formulation, Graphical Method. Simplex method including Big M-method,		<b>15</b>
<b>II</b>	Duality: Definition of the dual problem, Primal-dual relationships, Dual simplex Method.		<b>15</b>
<b>III</b>	Transportation and Assignment problems		<b>15</b>
<b>IV</b>	Deterministic replacement models, sequencing problems on two machines and n jobs.		<b>15</b>
<b>Sessional Internal Assessment (SIA) Full Marks - 25 Marks</b> <b>A Internal written Examination - 20 Marks (1 Hr)</b> <b>B Over All Performance including Regularity - 05 Marks</b>			
<b>Books Recommended:</b> 1. Linear Programming Problem: R.K. Gupta 2. Linear Programming Problem: Lalji Prasad 3. Operations Research: Kanti Swaroop 4. Operations Research: S. D. Sharma			



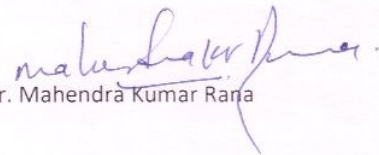
Dr. Bijay Kumar Sinha



Dr. Md. Moiz Ashraf



Dr. P. C. Banerjee



Mr. Mahendra Kumar Rana