

<b>BBA III Year</b>	<b>BBA- C501</b>		<b>Semester-V</b>		
	<b>Quantitative Techniques For Management</b>				
Time Allotted for End Semester Examination	Marks Allotted for Internal Assessment	Marks Allotted for End Semester Examination (ESE)	Maximum Marks (MM)	Total Credits	Maximum Hours
<b>3 Hrs.</b>	<b>30 (20+10)</b>	<b>70</b>	<b>100</b>	<b>06</b>	<b>60</b>

**OBJECTIVE:** To acquaint students with the construction of mathematical models for managerial decision situations and to use computer software packages to obtain a solution wherever applicable. The emphasis is on understanding the concepts, formulation and interpretation.

- Linear Programming: Formulation of L.P. Problems, Graphical Solutions; solution of simple LP problems using Simplex Methods. **(15 hours)**
- Introduction to Transportation Modelling: Basic terms, Applications of transportation problems, Formulation of Transport Problem, Solution by N.W. Corner Rule, Least Cost Method & Vogel's Approximation Method. **(15 hours)**
- Network Analysis: Construction of the Network diagram, Critical Path- float and slack analysis (Total float, free float, independent float), Introduction and brief theoretical discussion on PERT. **(15 hours)**
- Introduction to Queuing Theory, Job Sequencing, Introduction to Inventory Management: Just in Time (JIT) concepts, Theory of 5 S system, Theory of ABC analysis. Introduction to Simulation, Types and uses of Simulation, Phases of Simulation, Decision Theory. **(15 hours)**

**SUGGESTED READINGS:**

1. Barry, Render, Ralph, M. & Michael, E., Hanna (2011). Quantitative Analysis. New Delhi: PHI.
2. Budnik, Frank, S., Dennis, Mcleavey & Richard, Mojena (2003). Principles of Operations Research. New Delhi: All India Traveller Booksheller.
3. Gupta, R. K. (2010). Operation Research. India, Meerut: Krishna Prakash Media.
4. Gupta, P. K., Mohan, M., Swarup, K. (2001). Operations Research. New Delhi: Sultan Chand.
5. Sharma, J. K. (2009). Operations Research. Theories and Applications. New Delhi: Macmillian India Ltd.
6. Sharma, S. D. (2007). Operation Research. India, Meerut: Kedarnath & Co.
7. Taha, H. A. (2008). Operation Research. An Introduction. NY: Mc.Millan.
8. Vohra, N. D. (2000). Quantitative Management. New Delhi: Tata McGraw Hill.

**NOTE:** The list of cases, specific references and books including recent articles will be announced in the class by concerned teachers from time to time.