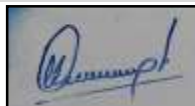


BBA IV Year	BBA-C701		Semester-VII		
	Management Science				
Time Allotted for End Semester Examination	Marks Allotted for Internal Assessment	Marks Allotted for End Term Examination(ESE)	Maximum Marks (MM)	Total Credits	Maximum Hours
3 Hrs.	30(20+10)	70	100	04	40

	Course Outcomes:	Mapped Program Outcomes
CO.1	To understand the basic concepts of management science and its application in decision making and business model building.	PO.1, PO.2, PO.3
CO.2	Familiarity with model basic concept of model building for solving business problems and its uses in daily life .	PO.1, PO.2, PO.3, PO.4
CO.3	To help students aware and learn inventory management skills knowledge and technique and its practical implication in business filed	PO.1, PO.2, PO.3, PO.8
CO.4	To make understand the decision model development skills and analysis for decision making skills in adverse situation of life.	PO.1, PO.2, PO.3

- Management Science: Basic Concepts and its role in decision making, Applications of Management Science in Business Organizations, Introduction to Linear Programming, Non-Linear Programming, Graphical and Simplex Method. **Case Study1:** Kiwanis Pancake Day– a service operations management. **(8Hours)**
- Assignment Models: Mathematical Formulation of Assignment Fundamental theorems, Hungarian Method for Assignment Problem, Unbalanced Assignment Problem, Variations in Assignment Problem. **(8Hours)**
- Mathematical Formulation, Metric form Transportation Problem, Feasible Solution, Basic Feasible Solution and Optimum Solution, Moving towards Optimum Solution. Solution by N.W. Corner Rule, Least Cost Method & Vogel’s Approximation Method. **Case Study2:** Bharat Tobacco: vendor selection and vendor rating. **(8Hours)**
- Simulation: Definition, Types, Uses, Limitations & Phases of Simulation, Even Type, Monte Carlo Simulation, Application of Simulation, Decision Theory: Types, Components of Decision Making, Decision Models, Decision Making under Uncertainty, Decision Tree Analysis. **Case Study3:** Customer asset management at DHL in Asia. **(8Hours)**
- Queuing Theory: Waiting Line Models, Inventory Management, Job Sequencing, Project Management by PERT and CPM. Game theory: Characteristic of Game Theory, Minimax Criterion & Optimal Strategy. Theoretical Introduction to Gamification. **(8Hours)**

SUGGESTED READINGS:



1. Barry, Render, Ralph, M. & Michael, E., Hanna (2016). *Quantitative analysis for Management* (12th edi). Pearsons India
2. Budnik ,Frank, S., Dennis, Mcleavey & Richard, Mojena (2018). *Principles of Operations Research*. New
3. Jain. K.C. Panddey,M. & Srivastwa , N. (2019). *Quantitative Technique for Management*. New age international publication
4. Sharma, J. K.(2017). *Operations Research.Theories and Applications*. New Delhi: Macmillian India Ltd.
5. Taha, H. A.(2018). *Operation Research.An Introduction*. NY:Mc.Millan.
6. Vohra, N. D. (2017). *Quantitative Management*. New Delhi: Tata McGraw Hill.
7. **CaseStudy1:**KiwanisPancakeDay–aserviceoperationsmanagement
8. **CaseStudy2:**BharatTobacco:vendorselectionandvendorrating.
9. **CaseStudy3:**CustomerassetmanagementatDHLinAsia

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.

