

OBE based Teaching Lesson Plan 2020-21

Program: BBA (Entre)

Course Name: Operations Research

Course Code: (UG 15AO 009)

Semester: IV

Lecture hours: 60

Faculty in-charge: Mr. Vinay Pradeep C

Course Outcome No.	Course Outcomes	T level Indicator
CO1	Describe the nature and scope of OR Models and its applications for Business decision making.	T2
CO2	Develop linear programming models by using graphs for maximization and minimization objectives and interpret such solutions.	T6
CO3	Solve linear programming problems for business decision making and interpret such solutions.	T3
CO4	Solve Transportation problems for business decision making and interpret such solutions.	T3
CO5	Solve assignment problems for business decision making and interpret such solutions.	T3
CO6	Differentiate between PERT and CPM network analysis of a Project for optimum solutions	T4

Module No. & Topics Covered	Course Outcome No.	No. of Lecture Hours	Pre-Class Activity	Instructional techniques	Assessment	T level
Module - 1 : Introduction to OR	CO1	4	Youtube video (NPTEL)	<ul style="list-style-type: none"> • Online Videos • Lecture • Discussion 	Evaluation by asking questions during class hour and a test	T2
Module-2: Introduction to Linear Programming	CO2	12	Youtube video	<ul style="list-style-type: none"> • Lecture • Case Study • Discussion • Problem solving 	Evaluation through tests and asking questions in class	T6
Module-3: Simplex Method	CO3	12		<ul style="list-style-type: none"> • Lecture • Discussion • Problem solving 	Evaluation through tests and asking questions in class	T3

Module-4: Transportation Problem	CO4	10		<ul style="list-style-type: none"> • Lecture • Case Study • Discussion • Problem solving 	Evaluation through tests and asking questions in class	T3
Module-5: Assignment Problem	CO5	10		<ul style="list-style-type: none"> • Lecture • Discussion • Case study • Problem solving 	Evaluation through tests and asking questions in class	T3
Module-6: Network Analysis	CO6	12		<ul style="list-style-type: none"> • Lecture • Discussion • Problem solving • Case Study 	Evaluation through tests and asking questions in class	T6

Continuous Internal Assessment

- Class test 1 : Last week of February
- Assignment : 2nd week of March
- Class test 2: 1st week of April

Books for Reference:

- *Anderson Sweeney Williams: An Introduction to Management Science Quantitative Approaches to Decision, Thomson.*
- *Chacko, George K: Applied Operations Research/Systems Analysis in Hierarchical Decision Making, North Holland Publishing Co.*
- *Taha, Hamdy A: Operations Research, Prentice Hall, India.*
- *Hiller/Lieberman: Introduction to Operations Research, Tata McGraw Hill.*
- *Sharma S D: Operations Research, Kedarnath Ramnath & Co.*

Approved by: