

B.Sc. DEGREE PROGRAMME
MATHEMATICS (ELECTIVE COURSE)
SIXTH SEMESTER

MM6B01(E02) : LINEAR PROGRAMMING AND GAME THEORY

3 hours/week

2 credits

30 weightage

Text Book : Dipak Chatterjee : Linear Programming and Game Theory, Prentice Hall of India.

Module I (10 hrs)

Mathematical programming, Convexity, Basic solutions.

Chapter I, Chapter II (2.2, 2.5, Theorem 2.5.3, omitted 2.6).

Module II (16 hrs)

Simplex Method, Duality

Chapter III : 3.1 (Theorem 3.1.3 statement only), 3.2, 3.3, 3.4, 3.6

Chapter IV : 4.1, 4.2 upto and including Theorem 4.2.2.

Module III (14 hrs)

Transportation problems, Assignment problems

Chapter 9: 9.1, 9.2, 9.2.1, 9.2.2, 9.2.3, 9.3; Chapter 10: 10.1, 10.2, 10.3, 10.4 (a and b).

Module IV (14 hrs)

Theory of Games

Chapter 11 : 11.1, 11.2, 11.3, 11.4, 11.5

References

1. P.K. Gupta & Manmohan : Linear Programming & Theory of Games, Sultan Chand.
2. K.V. Mital & Mohan : Optimization methods in Operations Research and Systems Analysis, 3rd Ed., New Age International Publishers.