# B.A. (ODL)    Sem-III    SEC1-N – I

## OPERATIONAL RESEARCH (MATHEMATICS)

**Unit 1. Modeling with Linear Programming**

1.1 Two variable LP Model

1.2 Graphical LP solution

1.3 Selected LP Applications

1.4 Graphical Sensitivity analysis.

**Unit 2. The Simplex Method**

2.1 LP Model in equation form

2.2 Transition from graphical to algebraic solutions

2.3 The simplex method

2.4 Artificial starting solutions.

**Unit 3. Duality**

3.1 Definition of the dual problem

3.2 Primal dual relationship.

**Unit 4. Transportation Model**

4.1 Definition of the Transportation model

4.2 The Transportation algorithm.

**Unit 5. The Assignment Model**

5.1 The Hungarian method

5.2 Simplex explanation of the Hungarian method.