Govt. College, Amargarh

Syllabus for Operation Research

Mathematics Department

Duration: - 1 Month

Sr. No.	Topics
1.	Introduction to Operations Research
2.	Linear Programming: Formulation and Graphical Solution
3.	Linear Programming: Simplex Method
4.	Transportation and Assignment Problem
5.	Decision Theory: Decision Trees and Expected Value
6.	Game Theory: Basics and Applications

Learning Outcomes:-

➢ Understand the foundational concepts and principles of Operations Research.

➢ Formulate and solve linear programming problems using graphical and simplex methods.

➢ Analyze and solve transportation, assignment, and network optimization problems.

➢ Apply integer programming techniques and inventory management models to real-world scenarios.

➢ Evaluate queuing systems, make informed decisions using decision trees, and analyze strategic interactions using game theory.

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- **Evaluation Process:-**
  - ➢ **Grading Categories**
  - a) Group Discussion (Interactive Session) 60%
  - b) Assessments 30%
  - c) Class Participation 10%

  - ➢ **Grading Scale**

    100-90% A
    89-80% B
    79-70% C
    69-60% D
    59-0% E

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