

# Sri Bhagawan Mahaveer Jain First Grade College

Geetha Road, Robertsonpet, Kolar Gold Fields.

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## DISCRETE MATHEMATICS

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**Upon successful completion of this course, the student will be able to:**

- Understand the basic principles of sets and operations in sets
- Apply counting principles to determine probabilities
- Demonstrate different traversal methods for trees and graphs
- Write model problems in computer science using trees and graphs
- Write an argument using logical notation and determine if the argument is or is not valid
- Determine when a function is one- one and onto.
- Prove basic set equalities.
- Demonstrate the ability to write and evaluate a proof.

**Upon successful completion of this course, the student will be able to:**

- Operation Research is used for defence capability acquisition decision making.
- It is used to find optimal or near optimal solutions to complex decision making problems.
- It is used in finding maximum (of profit or yield) in real-world objective.
- It is used in finding minimum (of loss or cost) in real-world objective.
- It is used in data envelopment.
- It has strong ties to computer science and analytics.