**Discrete Mathematic -151 math-**

**Description:**

**Chapter 1 : The Foundations: Logic and proofs**

* **Propositional Logic**
* **Propositional Equivalences**
* **Predicates and Quantifiers**
* **Ruls of inference**
* **Introduction to proofs**
* **Proof Methods and Strategy**

**Chapter 2: Basic Structures: sets, functions, Sequences, and Sums**

* **Sets**
* **Sets Operations**

**Chapter 4 : Induction and Recursion**

* **Mathematical Induction**
* **Strong Induction and Well-Ordering**

**Chapter 8: Relations**

* **Relations and their Properties**
* **n-ary Relations and their applications**
* **Representing Relations**
* **Closure of Relations**
* **Partial Ordering**

**Chapter 9: Graphs**

* **Graphs and Graphs Models**
* **Graphs Terminology and Special Type of Graphs**
* **Representing Grapgs and Graphs Isomorphism**

**Chapter 11: Boolean Algebra**

* **Boolean Funations**
* **Representing Boolean Funations**
* **Logic Gates**
* **Minimization of Circuits**



**The Book: Discrete Mathematics And its Applications**

**By: Kenneth H. Rosen ,6th edition .**

**Prerequisite: 150 Math.**

**Marks Distribution:**

**Actually we have 15% of total  marks.**

**We're going to take three Quizzes , each one has 5 marks. Then I'll take two of them . Hence, the distribution as the  following:**

* **10 Marks for the Quizzes=10%**
* **5 Marks for the classroom activity=5%**

**Dates of the Quizzes:**

* **1st:**
* **2nd:**
* **3rd:**