Major Topics for Test 2

• Observational Studies
• Experiments
• Basic Principles of Experimental Design
• Block Design
• Double Blind Experiments
• Sampling Methods
  ▪ Simple Random Samples
  ▪ Stratified Random Samples
  ▪ Multi Stage Samples
Major Topics for Test 2

- Sample Space
- Events
- Null (Impossible) Event
- Certain Event
- “AND (Intersection)” Event
- “OR (Union)” Event
- “Complement” Event
- “Independent” Events
Major Topics for Test 2

• Probability
• Venn Diagrams
• Basic Rules
• Addition Rule (Simple and General)
• Multiplication Rule
• Conditional Probability
• Tree Diagrams
• Bayes’ Rule
Major Topics for Test 2

• Probability Models
• Binomial Models (Selection with Replacement)
• Discrete Random Variables
• Mean and Std Deviation for Discrete Random Variables