



**Department of  
Industrial Engineering**

## **IE 454 Combinatorial Analysis**

<http://ie454.cankaya.edu.tr>

Fall 2010 Tuesday 9:40-12:30 A201

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Voice: 189 Dean's office

Name:

Surname:

Date: 2.3.2010

*I hereby declare that I have neither given nor received any aid during the exam.*

*I accept*

*I decline*

*Signature:*

### **SAMPLE QUIZ 1: Open notes!**

There are 28 regular and 11 irregular students who are currently taking IE 454. Out of these students, only 20 are female. The lecture is scheduled in room A201 on March, 2. Being in the state of rush, 5 students enter the class after 9:45.

1. How many different ways of having 5 students late for the quiz?
2. What is the probability of having 2 irregular students (and henceforth 3 regular) late?
3. What is the probability of having at least 2 gentlemen being late?
4. What is the probability that all will sit at the rear row? The classroom has five rows for seating.