

## EXAM 1 (Retake) (duration: 25 minutes)

DatZ1143: Discrete mathematics for computing

Instructor: Abuzer Yakaryılmaz

Name and surname:

Student number:

Date:

### Questions

(There are 5 questions with total 10 points.)

1. Write a proposition that is false. (1 point)
2. Write a proposition that is true. (1 point)
3. Write a sentence that is not proposition. (1 point)
4. Construct a truth table for the compound proposition  $(p \rightarrow q) \wedge (q \rightarrow p)$ . (3 points)

5) Show that the conditional statement  $\neg p \rightarrow (p \rightarrow q)$  is a tautology.  
(4 points)