

## Kalevi Aaltonen / Aalto University

22.11.2017

## **Quality Management and Metrology (MEC-E1090)**

Examination on Wednesday the 13th of December 2017 at 9...12 o'clock, K213

- 1. Leadership in ISO 9001 –quality standard
- 2. Contents and evaluation criteria of Malcolm Baldrige National Quality Award
- 3. Write out the Lean Six Sigma acronym **DMAIC** and explain how you can utilize the procedure for improving your production processes
- 4. What is  $\overline{x}R$  –control card and how do you utilize the card in quality system
- 5. **Coordinate Measuring Machine**; different machine structures, probes, control software and industrial applications
- 6. Answer very briefly:
  - a) Measurement uncertainty
  - b) Gauge blocks
  - c) Micrometer
  - d) Laserinterferometer
  - e) Calibration temperature
  - f) MIKES

(Grades: 0...6 points/question, accepted examination 40% of the maximum points eq. 14 points)

Rewarding and joyful winter!

Kalevi Aaltonen