

## Relevance of previous final exam questions to 2010 Final Exam

High = probable topic for exam. Medium = concepts are relevant, but not this kind of problem.

Low = not necessary to study.

2003.

- 1) Low (real op-amps)
- 2) Low (cell sensor)
- 3) Medium (Fourier series)
- 4) Medium (Fourier transforms and convolution)

2004.

- 1)
- 2) Medium (frequency-domain convolution)
- 3) Low (darkfield)

2005.

- 1) Low
- 2) Low

2006.

- 1) High (frequency response)
- 2) Medium (microscopy)
- 3) Low

2007.

- 1) High (hospital safety)
- 2) High (inverted pendulum)
- 3) Medium (magnitude and phase spectra)
- 4) Low

2008.

- 1) Medium (kinds of spectra)
- 2) Low (eye vs microscope)
- 3) High (nonlinear systems)
- 4) High (spiral point and PID controller)

2009.

- 1) High (electrical isolation)
- 2) Low (match time and frequency plots)
- 3) High (given  $H(s)$  find  $G_p$  and  $G_d$ )

2010.

- 1) High (electrical isolation)
- 2) High (TBA)
- 3) High (TBA)
- 4) High (TBA)