

Exam 1 "Cliff Notes"

E1 30%
* E2 40% → 70%

To date, the course has introduced signals + systems
↓
special signals + properties special systems properties
Relationship b/w an LTI system and the i/o signals is a convolution.

// Practice Exam vs today

Cliff Notes

① Math Preliminaries [e.g. "Complex Numbers"]

② Signals
• Special Signals [e.g. Delta, Step, Triangle, Rect], and their unique properties.

• General Signal Properties [Energy/Power Signal, Even/Odd Signals, Periodicity ...]

③ Systems

• Special Systems [e.g. Integrator]

• Systems w/ Properties like Causality, Stability, Linearity, Time Inv.

• Cascaded Systems

④ Convolution

- Understand the intuition behind convolution
- Be able to calculate or "plug + chug" convolution
- LTI systems \rightarrow derive why convolution relates the i/o.
- Some convolutions you can conceptually "memorize" (e.g. convolution w/ a Dirac)
- Properties

⑤ Industry Qst.

Logistics: - Exam is 24 hours. You can use any resource, except other people. So you cannot post on forums or ask someone else for help.

- The Exam should take ~ 2 hours.

Good Luck on the Exam!