

## **BOOKS THAT CAN BE USED BY STUDENTS DURING THE QUALIFYING EXAM (MAY 25, 2005)**

### **AREA: COMMUNICATIONS, SIGNAL PROCESSING & MICROWAVE**

- Oppenheim and Schaffer, “Discrete-Time Signal Processing”.
- A. B. Carlson, “Communication Systems”.
- Leon-Garcia, “Probability and Random Processes”.
- D. Cheng, “Fields and Wave Electromagnetics”, 2<sup>nd</sup> edition, Addison Wesley, 1989.
- Ramo, Whinnery and Van Duzer, “Fields and Waves Communication Electronics”, 3<sup>rd</sup> edition, John Wiley & Sons, 1994.
- Salehi and Proakis, “Communication Systems Engineering”.
- L. Scharf, “Statistical Signal Processing”.
- S. Haykin, “Adaptive Filter Theory”.
- G. Gonzalez, “Microwave Transistor Amplifiers-Analysis and Design”, 2<sup>nd</sup> edition, Prentice Hall, 1997.
- W. Stutzman and G. Thiele, “Antenna Theory and Design”, 2<sup>nd</sup> edition, John Wiley & Sons, 1998.
- Lee & Messerschmidt, “Digital Communications”.

### **AREA: COMPUTER ARCHITECTURE AND SYSTEMS**

- J. I. Hennesey and D. A. Patterson, “Computer Architecture: A Quantitative Approach”, Morgan Kaufmann, 3<sup>rd</sup> edition, 2003.
- J. D. Carpinelli, “Computer Systems Organization and Architecture”, Addison Wesley, 2001
- J. Wakerly, “Digital Design Principles & Practices”, Prentice Hall, 2000.
- Behrooz Parhami, “Computer Arithmetic Algorithms and Hardware Design”, Oxford Press.
- Handouts from Dr. Rosenstark will be given at the exams.

### **AREA: COMPUTER NETWORKING**

- M. Schwartz, “Telecommunication Networks: Protocols, Modeling and Analysis”, Addison-Wesley.
- A. Leon-Garcia and I. Widjaja, “Communication Networks”, McGraw Hill, 2000
- W. R. Stevens, “TCP/IP Illustrated”, Vol. I, Addison Wesley.
- D. Bertsekas, R. Gallager, “Data Networks”, second edition, Prentice Hall.
- Theodore Rappaport, “Wireless Communications: Principles and Practice”, Prentice hall.
- Leon-Garcia, “Probability and Random Processes”, Addison Wesley, 1994, or any edition.

## **AREA: SOLID STATE, VLSI, ELECTRO-OPTIC SYSTEMS**

### **MORNING (AM) PART**

- Streetman and Banerjee, “Solid State Electronic Devices”, 5<sup>th</sup> edition, Prentice Hall, 2000.
- G.S. May and S. M. Sze, Fundamentals of Semiconductor Fabrication," Wiley, 2004.

### **AFTERNOON (PM) PART:**

- Analog Integrated Circuit Design: **No Books**
- Weste and Harris, “CMOS VLSI Design”, 3rd edition, Addison Wesley Publishing Co. 2005.
- Yariv, “Optical Electronics in Modern Communication”, 5<sup>th</sup> edition, Oxford University Press, NY 1997

## **AREA: INTELLIGENT SYSTEMS**

### **MORNING (AM) PART**

- One of these two books:
  - Oppenheim, “Signals and Systems”, Prentice Hall, 1997.
  - B. P. Lathi, “Signal Processing and Linear Systems”, Berkeley-Cambridge Press, 1998.
- Leon-Garcia, “Probability and Random Processes”, Addison Wesley, 1994, or any edition.
- 2 sheets of notes (paper size: 8.5” × 11”)

### **AFTERNOON (PM) PART: Unlimited**