ELEC 330 Test 2 Review

TOPICS

Microcontroller Stack
- Hardware Stack (31 registers, 21-bits wide)
- Stack Pointer (5-bit address)

Subroutines
- Call and Return
- Parameter Passing

Application Programs (BCD to Binary Conversion)

I/O Ports
- Buffers and Latches (Address Bus)
- PORTA thru PORTE
- SFRs (PORT, TRIS)

Interfacing Output Peripherals
- LEDs, Seven-Segment Displays
- Common Anode, Common Cathode
- Time Multiplex Scanning

Application Example (Seven-Segment Counter)

Interfacing Input Peripherals
- Switches, Push-Buttons, Matrix Keypad
- Debouncing

Interrupts
- High-Priority and Low Priority
- External Sources (PORTB)
- Internal Peripheral Sources (Timers, A/D Converter, Serial I/O)
- SFRs (RCON, INTERCON, PIR, PIE, IPR)

Interrupt Service Routine (ISR)
- Clears Interrupt Flag
- Return (RETFIE)
Practice Questions

7.10
7.20
9.2
10.19