

Department of Electrical and Computing Engineering

UNIVERSITY OF CONNECTICUT

ECE 3411 Microprocessor Application Lab: Fall 2015 Question IV

There are <u>3 short questions</u> in this quiz. There are <u>2 pages</u> in this quiz booklet. Answer each question according to the instructions given.

You have **5 minutes** to answer the questions.

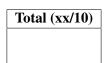
If you find a question ambiguous, be sure to write down any assumptions you make. **Be neat and legible.** If we can't understand your answer, we can't give you credit!

Write your name in the space below. Write your initials at the bottom of each page.

THIS IS A CLOSED BOOK, CLOSED NOTES QUIZ. PLEASE TURN YOUR NETWORK DEVICES OFF.

Any form of communication with other students is considered cheating and will merit an F as final grade in the course.

Do not write in the box below



Name:

Student ID:

- 1. In 'Normal Mode', when does the 8-bit Timer/Counter Timer0 overflow?
- (a) When TCNTO matches with OCROA
- (b) When TCNT0 matches with OCR0B
- (c) When TCNT0 = 255
- (d) None of the above

2. In 'Clear Timer on Compare Match' (CTC) mode, Timer 0 resets itself automatically when it reaches the value that is stored in the register:

- (a) OCR0A
- (b) TCCR0A
- (c) TIMSK0
- (d) None of the above
- 3. Assume an MCU with crystal clock frequency 16MHz with Timer0 initialized as follows:

/* Normal mode (default), just counting */
TCCR0B |= 0x01; /* Clock Pre-scaler @ 1 */

At what rate, the register TCNT0 is incremented?

End of Question

Please double check that you wrote your name on the front of the question.