

BE1010 – Fall 2004

Prof. Mohamad Hassoun, WSU/Engineering

Quiz # 1 (10 minutes. *CLOSED BOOK***)**

1. (5 points) Provide a one-sentence definition for the following terms:

- a. RCX: The large programmable LEGO-brick computer that controls the motors and reads the sensors in the Mindstorms kits.
- b. BricxCC: Software used to write, compile, and upload NQC code to the RCX as well as perform a number of other RCX control functions.
- c. Firmware: The operating system of the RCX which must be installed before programs can be uploaded.
- d. NQC: Stands for “Not Quite C”. A simplified programming language similar to C++ that is used to program the LEGO RCX.
- e. IR Tower: Infrared tower used to communicate between the RCX and the host computer (i.e., PC).

1. (3 points) What is the purpose of the following buttons on the RCX brick:

- a. **view** button: Changes the display status of the RCX’s LCD to view the values for the three inputs and three outputs as well as to view its internal clock. Can also be used in conjunction with the other buttons to control a motor.
- b. **program** button: Switches between the programs uploaded into the RCX to chooses the one to run.
- c. **Run** button: Runs the program selected by the **program** button when pressed and stops the program when pressed a second time.

2. (2 points) List two of the “Three **NO**’s” discussed in class as part of the PC laboratory conduct code.

- i) No eating or drinking in the lab.
- ii) No using the lab computers for personal use.
- iii) No excessive noise or talking when the Professor is lecturing.