Physics 212, Spring 2012
Dr. Gladden

Quiz 2: Chap. 31

NAME:_____KEY_____   UM ID: _____
Clearly write the letter of the best choice in the space provided

1. __B__ A conducting ring lays flat on a table. A bar magnet with the north end pointed *downward* approaches the ring from above. Looking down at the ring, the induced current will be flowing:
    a. clockwise
    b. counter clockwise
    c. up
    d. down

2. __B_ For the same configuration described above, if the magnet were stationary and the ring *expanded*, would the current be flowing:
    a. clockwise
    b. counter clockwise
    c. up
    d. down

3. __A_ If the magnet above were moving away from the conducting ring, how would the area of the ring need to change in order to ***prevent*** any current from flowing?
    a. Increase
    b. Decrease
    c. Remain the same
    d. Rotate

4. ___C_ A solenoid is connected to a galvanometer for which the direction of the needle deflection indicates the sign of the voltage. If a bar magnet passes **all the way through** the solenoid, describe the deflection of the needle.
    a. Deflects one way, returns to 0, then deflects the same way.
    b. Deflects one way, the slowly returns to 0.
    c. Deflects one way, returns to 0, then deflects the other way.
    d. Does not deflect at all.

5. __C_ Two small magnets are dropped from the same height. One passes through a coil of wire and one does not. The magnets reach the floor….
    a. At the same time.
    b. The one passing through the coil lands first.
    c. The one passing through the coil lands last.
    d. We need to know the polarity of the magnet as it enters the coil to answer this question.