**Physiology 115 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Spring 2015

**QUIZ #5**

For the multiple choice questions, there is *one* and *only one* best answer. Use the back of the sheet if you need to complete answers.

1. Which one of these is true?
   1. a centriole has two centrosomes
   2. a centriole has one centrosome
   3. centrosomes are located within the nucleus
   4. centrosomes are microtubule-organizing centers for the cell
   5. centrosomes help ribosomes in protein synthesis
2. Which of these cell structures is a location where ribosomal RNA (rRNA) is synthesized and ribosome proteins assembled to form the large and small ribosomal subunits?
   1. plasma membrane
   2. nucleolus
   3. smooth endoplasmic reticulum
   4. mitochondria
   5. peroxisome
3. Which type of RNA actually encodes the polypeptide that will be synthesized during translation?
   1. ribosomal RNA (rRNA)
   2. messenger RNA (mRNA)
   3. transfer RNA (tRNA)
   4. chromosomal RNA (cRNA)
   5. none of the above
4. Do EITHER (a) OR (b)  
   (a) The human genome is 30% adenine (A). What are the percentages for the other three bases C, G, and T   
   (b) Give one fact—any fact---EACH of (i) microfilaments, (ii) microtubules, and (iii) intermediate filaments?