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

**QUIZ #2**

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. Triglycerides are composed of three fatty acids esterified (covalently bound as an ester) to:
   1. phospholipids
   2. LDL
   3. cholesterol
   4. glycerol
   5. glucose
2. Which of these receptor types has the ability to phosphorylate itself (autophosphorylation)?
   1. G-protein coupled receptor
   2. gap junction receptor
   3. receptor tyrosine kinase
   4. steroid hormone receptor
   5. claudin receptor
3. Which of these is an unsaturated fatty acid?
   1. C18:0
   2. C16:1
   3. C16:0
   4. both (a) and (c)
   5. none of the above
4. (a) Draw or briefly describe the lipoprotein as a layered spherical structure, showing the relative layering from center to surface of the following components: (i) apolipoprotein, (ii) phospholipid, (iii) triglyceride, (iv) cholesterol? (names of apolipoproteins are not important: just show the general positions of these components in a lipoprotein: keep in mind lipophilic & hydrophilic chemistry!)  
   (b) How is the density of a lipoprotein changed relative to the amount of lipid within it?