**Lipids Practice Quiz**

1. **Which of the following is NOT a typical function of a LIPID?**
2. **Form energy rich storage molecules**
3. **Store genetic information for heredity**
4. **Insulate the body and pad organs**
5. **Form cell membranes**
6. **Act as hormones in the body**
7. **The lipid shown below is best described as:**



1. **Neutral fat with saturated fatty acids**
2. **Neutral fat with unsaturated fatty acids**
3. **Sterol lipid used to firm up cell membranes**
4. **Phospholipid used to build cell membranes**
5. **The molecule shown below is best described as..**



1. **A glycerol molecule**
2. **A sterol lipid**
3. **A saturated fatty acid**
4. **An unsaturated fatty acid**
5. **During the formation (synthesis) of the molecule below, what statement is accurate?**



1. **Three waters were produced**
2. **Three waters were consumed**
3. **Four waters were produced**
4. **Four waters were consumed**
5. **The molecule below is classified as…**



1. **Neutral Fat**
2. **Phospholipid**
3. **Monoglyceride**
4. **Sterol Lipid**
5. **What function may it serve in living things?**
6. **Helps store energy**
7. **Helps store genetic information**
8. **Helps firm up (proper texture) cell membranes**
9. **Is burned as a fuel to release energy**
10. **Which of the following would likely be a Fatty Acid?**
11. **H2O**
12. **C18H34O2**
13. **C12H22011**
14. **C5H10O5**
15. **A cell's membrane would mostly consist of which of the following?**
16. 
17. 
18. 
19. 
20. **Name the molecule that the arrow is pointing to**



1. **PHOSPHOLIPID C) GLYCOGEN**
2. **GLYCEROL D) ESTROGEN**
3. **CHOLESTEROL**

 **10. Which of the following was NOT mentioned when talking about this Organic Group known as FATS/Lipids?
A) Amino Acids
B) Carboxylic Acid Group
C) Glycerol
D) Monoglyceride
E) Phosphate Group**

**ANSWER KEY:**

1. **Which of the following is NOT a typical function of a LIPID?**
2. **Form energy rich storage molecules (neutral fats)**
3. **Store genetic information for heredity (sounds like DNA to me)**
4. **Insulate the body and pad organs (fat/adipose tissue)**
5. **Form cell membranes (phospholipids)**
6. **Act as hormones in the body (sterol lipids)**
7. **The lipid shown below is best described as:**



1. **Neutral fat with saturated fatty acids**
2. **Neutral fat with unsaturated fatty acids**
3. **Sterol lipid used to firm up cell membranes (cholesterol)**
4. **Phospholipid used to build cell membranes (the glycerol has two hydrophobic FA's and the final spot on the glycerol is occupied by a hydrophilic phosphate head)**
5. **The molecule shown below is best described as..**



1. **A Glycerol molecule (only has 3 carbons)**
2. **A sterol lipid (would look like honeycomb)**
3. **A saturated fatty acid (every carbon is holding as much H as possible and there is an acid group at one end)**
4. **An unsaturated fatty acid (would have a double bond in the carbon chain)**
5. **During the formation (synthesis) of the molecule below, what statement is accurate?**



1. **Three waters were produced (as each FA is added to the 3 spots on the glycerol a water is produced)**
2. **Three waters were consumed (that would be hydrolysis to break apart)**
3. **Four waters were produced (only 3 spots of synthesis)**
4. **Four waters were consumed (Hydrolysis)**
5. **The molecule below is classified as…**



1. **Neutral Fat (would have glycerol with 3 FAs)**
2. **Phospholipid (would have glycerol with 2 FAs and a phosphate head)**
3. **Monoglyceride (need a glycerol with 1 FA)**
4. **Sterol Lipid (has that honeycomb pattern)**
5. **What function may it serve in living things?**
6. **Helps store energy (neutral fats do)**
7. **Helps store genetic information (DNA does that)**
8. **Helps firm up cell membranes (sounds like cholesterol)**
9. **Is burned as a fuel to release energy (fatty acid or carb, but not sterol lipid)**
10. **Which of the following would likely be a Fatty Acid?**
11. **H2O (inorganic water)**
12. **C18H34O2 (organic hydrocarbon with acid group at end)**
13. **C12H22011 (organic but has a Carbohydrate ratio – disaccharide)**
14. **C5H10O5 (organic but has a Carbohydrate ratio – monosaccharide – 5 carbon pentose)**
15. **A cell's membrane would mostly consist of which of the following?**
16. 

**Sterol lipid with honeycomb shape**

1. 

**Glycerol with two FA's and a phosphate head = Phospholipid**

1. 

**Glycerol with 3 FA's = Neutral Fat – specifically a Triglyceride**

1. 

**Each unit is a Glucose, which is a carbohydrate, many glucoses linked together = a polysaccharide. If this had more and did not have many branches it would be STARCH**

1. **Name the molecule that the arrow is pointing to**



1. **PHOSPHOLIPID C) GLYCOGEN**
2. **GLYCEROL D) ESTROGEN**
3. **CHOLESTEROL**

**10. Which of the following was NOT mentioned when talking about this Organic Group known as FATS/Lipids?
A) Amino Acids – these are the monomers of a PROTEIN
B) Carboxylic Acid Group – Found at the end of a fatty acid
C) Glycerol – One of the basic monomers in Neutral fats
D) Monoglyceride – A glycerol with one Fatty Acid attached
E) Phosphate Group – The polar group found on a Phospholipid**