



QUIZ TIME

**Bio-
chemistry
Lec21**

Done by:

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1. Lipogenesis is the biosynthesis of:

- a) Cholesterol
- b) Triacylglycerols
- c) Phospholipids
- d) Ketone bodies

2. The main site of lipogenesis is:

- a) Mitochondria
- b) Cytoplasm
- c) Nucleus
- d) Ribosome

3. In adipose tissue, glycerol-3-phosphate is formed from:

- a) Glycerokinase
- b) DHAP via glycolysis
- c) Acetyl-CoA
- d) Lactate

4. The building block of fatty acid synthesis is:

- a) Glucose
- b) Pyruvate
- c) Acetyl-CoA
- d) Glycerol

5. The first committed step in fatty acid synthesis is:

- a) Citrate transport
- b) Formation of malonyl-CoA
- c) Release of palmitate
- d) Esterification of glycerol

6. The rate-limiting enzyme of lipogenesis is:

- a) Hormone-sensitive lipase
- b) Pyruvate carboxylase
- c) Acetyl-CoA carboxylase
- d) Citrate synthase

7. The final product of fatty acid synthase complex is:

- a) Stearic acid (18C)
- b) Palmitic acid (16C)
- c) Oleic acid (18:1)
- d) Arachidonic acid (20:4)

8. Which vitamin is required as a cofactor for Acetyl-CoA carboxylase?

- a) Biotin
- b) Thiamine
- c) Niacin
- d) Riboflavin

9. During fasting, lipogenesis is:

- a) Increased
- b) Decreased
- c) Unchanged
- d) Independent of fasting

10. Triacylglycerol (TAG) is composed of:

- a) 1 glycerol + 2 fatty acids
- b) 1 glycerol + 3 fatty acids
- c) 2 glycerol + 3 fatty acids
- d) 3 glycerol + 1 fatty acid

