

Quiz 14 Mockup

1. Which equation represents the overall process of human metabolism?

- A) $\text{energy} + 6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
- B) $\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O} + \text{energy}$
- C) $\text{energy} + \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O}$
- D) $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + \text{energy}$

2. Which of the following is NOT a macronutrient?

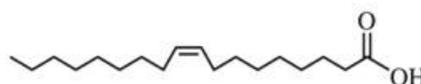
- A) Carbohydrates
- B) Fats
- C) Proteins
- D) vitamins

3. The major role of fat in our diets is to

- A) add fiber
- B) create structural material
- C) provide energy
- D) synthesize protein

4. This structure represents a

- A) saturated fatty acid
- B) monounsaturated fatty acid
- C) polyunsaturated fatty acid
- D) None of the above



5. Trans fatty acids have been shown to raise cholesterol levels just as much as saturated fats. An explanation for these experimental results is that the trans fatty acids

- A) undergo a reaction with hydrogen in the body and therefore acting as saturated compounds.
- B) are similar in structure to saturated fats and therefore mimic the behavior of the saturated fats.
- C) being polymerized into amino acids, which cause accumulation of cholesterol in the blood stream.
- D) being oxidized by the presence of natural catalysts, causing them to behave as saturated compounds.

6. A typical type of peanut butter contains: 26% protein, 52% fat, 20% carbohydrates, and 2% water. How many Calories of food energy could you derive from 100 g of peanut butter?

- A) 100 Cal
- B) 392 Cal
- C) 400 Cal
- D) 652 Cal

7. Minerals exist in the body as ____?

I. Cations

II. Anions

III. ionic compounds

A) I, II, and III

B) I only

C) I and II only

D) II only

8. Which statement about carbohydrates is false?

A) They are metabolized in the body, producing energy.

B) They cause obesity and should be totally eliminated from a healthful diet.

C) They can be produced in plants by photosynthesis in an endothermic reaction.

D) Simple carbohydrates, such as monosaccharides, are made up of C, H, and O in a 1:2:1 ratio.

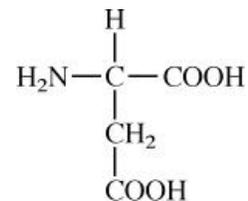
9. This molecule, found in asparagus, is

A) an alcohol

B) an amino acid

C) a protein

D) a monosaccharide



10. Under normal circumstances, which one of the followings is NOT a major source of energy for human body?

I. fats

II. Proteins

III. Minerals

A) II only

B) III only

C) II and III only

D) I, II and III

11. Based on the information listed on the nutrition facts label, calculate the actual Calorie content /gram of fat of the content in the package.

A) 9.0 Cal/g

B) 8.5 Cal/g

C) 5.7 Cal/g

D) 14 Cal/g

12. Based on the amount of fats, carbohydrates and proteins listed on the nutrition facts label, calculate the ACTUAL Calories/serving of the content in the package.

A) 155 Cal

B) 163 Cal

C) 93 Cal

D) 108 Cal

Nutrition Facts	
Serving Size 1 ounce Servings in bag 4	
Amount Per Serving	
Calories 155	Calories from Fat 93
% Daily Value*	
Total Fat 11g	16%
Saturated Fat 3g	15%
Trans Fat	
Cholesterol 0mg	0%
Sodium 148mg	6%
Total Carbohydrate 14g	5%
Dietary Fiber 1g	5%
Sugars 1g	
Protein 2g	
Vitamin A 0%	Vitamin C 9%
Calcium 1%	Iron 3%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

13. A 1.5-oz Hostess Twinkie contains 150 Calories. How long will it take a 150-lb person to work off two Twinkies? Assume the person chooses the exercise from this list that will work off the largest number of Calories per minute, and that none of the energy is being expended for maintaining basic bodily functions.

- A) 1.5 min
- C) 20 min

- B) 10 min
- D) 23 min

Exercise	Energy Expenditures, Cal/min		
	120 lb	150 lb	180 lb
Basketball (vigorous)	10	13	15
Running (7 min/mile)	12	15	18
(Swimming (fast)	9	11	13