1. Which of the following is an example of an anabolic pathway?
a) Proteins broken into A.A.
b) Palmitic acid is oxidized, ending in the production of acetyl CoA
c) Glucose incorporated into glycogen stores
d) The conversion of pyruvic acid to lactic acid

Answer: C.

2. Which of the following statements about the proximate analysis is incorrect?
a) Determining the water content of a food is important, as this helps with the shelf life of a food product?
b) Short-chain fatty acids are only extracted from a food product during the extraction step.
c) The proximate analysis does not enable the distinction of saturated, monounsaturated, and polyunsaturated fatty acids. (true, all you get is total fat)
d) The Kjeldahl analysis assumes that all protein has 16% nitrogen, however, certain foods deviate with regards to this assumed % of nitrogen.

Answer: B. Because you can lose SCFA during water evaporation as well.

3. A food sample initially weighing 30 g is dried down and analyzed for its various components. Moisture content is 40%, crude fat is 5%, crude protein is 20%, ash is 4%, and crude fibre is 25%. What is the weight, in grams, of digestible carbohydrates in this food complex?
a) 1.8
b) 2.5
c) 3.0
d) 3.8

We are looking for the Nitrogen Free Extract, add up all the components, subtract from 100, then multiple by total weight.

Answer: A.

4. The proximate analysis is recognized to be an important first step for the analysis of food composition. Other methods are used to provide more detailed info about specific fractions. Which of the following statements is the most correct?
a) The Van Soest method is used to obtain precise info about insoluble fibres.
b) The Southgate method provides info about the carb fraction that is subsequently used for labeling of human foods
c) Gas chromatography can be used to determine the levels of saturated and trans fats present in a food sample.
d) A B C all correct
e) A B C all incorrect

Answer: D.

5. The completel oxidation of one molecule of pyruvate generates the equivalent of how many ATP?

a) 12
b) 15
c) 24
d) 38

Answer: B.

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