

Q1/ define the following:

1. Triglycerides
2. Glycerol
3. Fatty acid
4. Carnitine
5. Proteins
6. deamination

Q2/Fill in the blanks:

- 1- Metabolism of lipid follow 3 steps pathway which include: _____, _____, _____
- 2- To extract energy from lipid, the body first breaks down triglycerides into their component parts, _____ and _____.
- 3- The breakdown of fatty acids takes place inside the _____.
- 4- _____ A compound that transports fatty acids from the cytosol into the mitochondria, where they undergo beta-oxidation.
- 5- Beta-oxidation of a fatty acid produces a flood of _____ that can enter the citric acid cycle.
- 6- To use amino acids as an energy source, a process called _____ first strips off the amino group ($-NH_2$), leaving a “carbon skeleton.”

Q3/ True or false

- 1- Fatty acid: is a small three-carbon molecule, carries a relatively small amount of energy and can be converted by the liver to pyruvate or glucose. F
- 2- Glycerol: is a long hydrocarbon chain that has a carboxyl group ($COOH$). F
- 3- All of the three steps of lipid metabolism occur in mitochondria of living cells T
- 4- Because protein has vital structural and functional roles, proteins and amino acids are considered primary sources of energy. F
- 5- During starvation, energy needs take priority, so the body breaks down protein and extracts energy from the amino acid building blocks. T