

- 1) Match the following definition with its appropriate term.  
*Linear sequence of amino acids in a polypeptide chain.*
  - a) primary structure
  - b) secondary structure
  - c) tertiary structure
  - d) quaternary structure
- 2) Match the following definition with its appropriate term. *alpha helix*
  - a) primary structure
  - b) secondary structure
  - c) tertiary structure
  - d) quaternary structure
3. Enzymes are only protein? (be careful)      a) true      b) false
4. The non-protein portion of an enzyme that actually catalyzes the reaction is ?
  - a) substrate
  - b) coenzyme
  - c) peptide bond
  - d) none of these
5. What is it that enzymes lower to get a reaction to proceed ?
  - a) potential energy
  - b) kinetic energy
  - c) energy of activation
  - d) specificity
  - e) choose this answer if none of these is correct
6. The specificity of an enzyme for its substrate is dependent upon its ?
  - a) number of amino acids
  - b) active site
  - c) activation energy
  - d) choose this answer if none of these is correct
7. An enzyme reaches a maximal velocity (saturates) only at very, very low substrate concentrations?
  - a) true
  - b) false

## Essay Sample Questions -

- 8) You are a amateur runner in the *Miami Marathon*, and you recall that a distance runner's body temperature can rise to 105°C and blood plasma volume decrease by 10% to 15% during such a race. But, by continuously sweating you can evaporate some of the heat responsible for these effects. What is the NAME of the physical property of water that allows such heat evaporation? If you were to sweat off two liters (2,000 ml) of body water during a race, exactly how many calories of heat could you dissipate during the race? (Reminder - density of water 1 ml = 1 cc = 1 gm). (show all work).
- 9) What is (are) the differences between an alpha and a beta linkage in hexose sugars such as, glucose, and what are some other disaccharide's which can made from hexose sugars.