AP BIOLOGY 1ST SEMESTER TEST TOPICS

Multiple-choice section

59 questions (53 minutes)

* Identify structures (chemical sketch, hydrophobic, hydrophilic, etc) of
  + Polypeptides
  + Disaccharides
  + Fats
  + Amino acids
  + Starch
  + Phospholipids
  + Proteins
  + Steroids
  + Chitin
* Functional groups
* pH scale
* Competitive inhibition
  + What it is
  + Examples
* Cell structure and organelles
  + Cell wall
  + Mitochondrion
  + Ribosome
  + Lysosome
  + Golgi apparatus
  + Fluid mosaic model
  + Nucleus
  + Chloroplast
  + Peroxisome
  + Endoplasmic reticulum (smooth versus rough)
  + Microfilaments
  + Microtubules
  + Actin fibers
  + Keratin fibers
* Cell transport
  + Osmosis
  + Concentration gradient
  + Protein involvement
  + Energy required or not
  + What particles require energy to be transported
* Prokaryote versus eukaryote
* Photosynthesis (what, where, products, reactants)
* Respiration
* Glycolysis
* Krebs
* Oxidative phosphorylation
* Lactic acid fermentation
* Chemiosmosis
* ATP, NAD\*, FAD\*
* Pyruvate
* Transpiration
* CAM photosynthesis
* Cyclic photophosphorylation
* Noncyclic photophosphorylation
* Stomata
* stroma
* Carbon fixation
* C3, C4 (what, advantage, disadvantage)
* Rubisco
* thylakoid
* Diseases (Tay-Sachs, downs, mad cow)
* Viroids
* Plasmids
* Prions
* Provirus
* retrovirus
* Meiosis, mitosis (phases, details, daughter cells, n
* Crossover
* Crossover frequencies & maps
* Cyclin-dependent kinase (CDK)
* Transcription
* Translation
* Gene expression
* Gel electrophoresis
* Mendell
* Punnett squares
* Pedigree
* Blood types