EXAM EXPECTATIONS
AP Biology
"Unit Six: C-Level"

STATE the bacteria type most susceptible to penicillin
STATE that cell wall biochemical composition varies greatly in plants, fungi and bacteria
STATE evolutionary beneficial mutations must be passed in gametes to affect future generations
STATE the location of photosystems in modern plant cells
STATE the role of photosystems in photosynthesis
STATE the strongest evidence that prokaryotes evolved prior to eukaryotes
STATE the name of the virulent phage life cycle, of the temperate phage life cycle
STATE the type of chemical bond found between bases in DNA
STATE how we measure Darwinian fitness
STATE that natural selection is essentially differential reproductive success
STATE the most important mechanism for generating variation in human populations
STATE where fertilization takes place in the human
STATE the single strongest line of evidence that all life shares a common ancestor
STATE that bacterial cell walls share in similar functions with plant cell walls
STATE that bacterial cell walls differ in structure/composition from plant cell walls
STATE the name of the large wide extinctions that took place around the time of pangea forming
STATE that mitochondria evolved prior to chloroplasts
STATE that prokaryotes evolved prior to eukaryotes
STATE that the fossil record dates back to 3.5 BYA
STATE that oxygen was likely very low or absent all together in earth's early atmopsphere
STATE the first genetic material in living organisms (most likely candidate as of today)
STATE the most common source of genetic diversity in a bacterial colony
STATE that the viral envelope can be derived from host cell's plasma membrane or nuclear membrane
STATE what determines the host range of a virus
DEFINE prophage, provirus
DEFINE bacteriophage
DEFINE viroids, prions
DEFINE retrovirus
DEFINE extreme halophiles, extreme thermophiles
LIST components found in all viruses
LIST the types of genomes found in viruses
LIST factors that cause the emergence of new viruses
LIST products that Miller & Urey actually produced in their famous experiment on the origin of life
LIST products that Miller & Urey have not yet been able to produce in their experiment on the origin of life
LIST the hypothetical (and sequential) events that led to the origin of life
LIST the following structures from internal to external: cell wall, plasma membrane and capsule
LIST four modes of nutrition found among bacteria
LIST five conditions of Hardy-Weinberg equilibrium
LIST ways in bacterial populations can generate variation
LIST the scientific experiments from the following people in chronological order: Avery-McCarty-Macleod, Griffith, Hershey-Chase, Meselson-Stahl and Watson-Crick
LIST the conditions of early earth that Miller & Urey simulated in their experiment on the origin of life
LIST traits common to all protobionts
LIST traits shared by archae and bacteria