## 1.A Exam Expectations

**DEFINE** evolution

**DEFINE** natural selection

LIST the inferences of natural selection

**OUTLINE** convergent evolution

**OUTLINE** evolution

**OUTLINE** gene flow

OUTLINE homology between reptiles and birds

OUTLINE homology between humans and chimps

OUTLINE adaptation as it relates to evolution

OUTLINE the relationship between genetic drift and population size

**DESCRIBE** homology

CALCULATE allelic and/or genotypic frequencies using the Hardy Weinberg Equilibrium

IDENTIFY examples of directional, stabilizing or disruptive selection

COMPARE different types of mutations

SUGGEST why one mutation is likely more harmful than another

SUGGEST ways to increase genetic variability within a population

DISCUSS the relationship between genetic variation and phenotypic variation

DISCUSS how maladaptive traits can persist in a population

DISCUSS an example (with evidence) of Darwin's "non-constancy of species"

DISCUSS an example (with evidence) of Darwin's "branching evolution"

DISCUSS whether or not evolution could a perfect organism

DISCUSS the impact of the Hardy-Weinberg equilibrium on Darwin's original ideas

EXPLAIN natural selection according to Darwin

EXPLAIN how small populations are more vulnerable to disease or even extinction

EXPLAIN the role of mutation in evolution and its effect on biodiversity

EXPLAIN the role of genetic drift in evolution and its effect on biodiversity

EXPLAIN antibiotic resistance bacteria and natural selection's role in this