Review Sheet Final

Chapter 22
Evolution
Early Philosophy and Natural Theology
Linnaeus and Taxonomy
Fossils and Georges Cuvier
Catastrophism
James Hutton, Thomas Lyell, gradualism and uniformitarianism
Jean Baptiste Lamarck
Charles Darwin, the HMS Beagle and *On the Origins of Species by Means of Natural Selection*
Descent with Modification
Natural Selection
Artificial selection
The five lines of evidence supporting evolution
Homologous structures and vestigial organs

Chapter 23
Population genetics, the modern synthesis
Populations and species
Gene pool, allele frequencies and genetic structure
Hardy-Weinberg
Microevolution
Genetic drift
  Bottleneck effect
  Founder effect
Gene flow
Mutation
Nonrandom mating
  Inbreeding
  Assortative mating
Natural selection
Polymorphism
Geographical variation
  Cline
What causes genetic variation?
What preserves genetic variation?
Balance polymorphism
  Heterozygous advantage and hybrid vigor
  Frequency dependent selection
Fitness
Selection - stabilizing, directional and diversifying
Sexual selection and sexual dimorphism
Why not perfection?

Chapter 24
Macroevolution
Anagenesis
Cladogenesis
Prezygotic barriers and postzygotic barriers to interspecies mating
Allopatric speciation
  Why allopatric speciation?
Adaptive radiation
Sympatric speciation
Autopolyploidy and allopolyploidy
Punctuated equilibrium
Exaptation
Allometric growth
Paedomorphosis
Heterochrony
Homeosis
Species selection

Chapters 1-17
Study your old tests. All questions will come directly from the old tests. See below for test keys.
## Test Keys

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