SBI3U Exam Review Terms and Concepts

Terminology:

Linnean Classification
Binomial nomenclature
Phylum
Taxonomy/taxa/taxon
Sister taxa
Autotroph/heterotroph/photoautotroph
Bacilli
Cocci
Spirilli
Staphylo
Strepto
Diplo
Conjugation
Transformation
Transduction
Binary fission
Aerobe
Anaerobe
Bacteria (all types + structure)
Virus (+ structure)
Prokaryote
Eukaryote
Domains of life
Archaea
Gram stain/ gram positive/ gram negative
Halophile/necrophile/thermophile
Lysis
Plasmid
Alternation of generation
Ascus
Mycelia
Hyphae
Mushroom
Fungus/fungi
Basidiomycota, Ascomycota, lichen
Bryophytes (mosses)
Pterophytes (ferns)
Angiosperms
Gymnosperms
Cilia
Flagella
Protists (all types + structures)
Plant like protists, fungus like protists, animal like protists
Endocytosis
Endosymbiosis theory
Fruiting body
Gametophyte
Sporophyte
Diploid
Haploid
Plasmodium
Malaria
Small pox
Pollination
Rhizoids
Spore/ sporangium
Antheridium
Archegonium

Unit 2: Evolution

Microevolution
Macroevolution
Cladistics
Monophyletic
Paraphyletic
Homologous
Analogous
Outgroup
Derived group
Evolutionary convergence

Clade
Phylogeny
How to construct a phylogeny/cladogram
Steps in evolution
Evolution, theory
Charles Darwin: observations, inferences
Evidence of evolution
Speciation
Allopatric, sympatric speciation
Alfred Russell Wallace
Jean-Baptiste Lamarck
George Cuvier
Thomas Robert Malthus
James Hutton
Charles Lyell
Natural selection
Artificial selection
Breeding, creating breeds

Unit 3- Genetics

Gregor Mendel
Inheritance, traits
Alleles
Multiple alleles
Mendel's experiments
Autosomal inheritance
Monohybrid crosses
Dihybrid crosses
Sex -linked inheritance
Chromosome structure
Mitosis
Meiosis
Errors in meiosis
Mutations: deletion, insertion, translocation
Multifactorial traits
Amniocentesis
Genetic screening
Gene mapping
Karyotyping
Pedigrees
DNA
Double helix structure
James Watson
Francis Crick
Maurice Wilkins
Rosalind Franklin
Genetic applications in agriculture

Unit 4: Animals

Body Systems, including organs for each system: respiratory, circulatory, integumentary, digestive
pay attention to: tidal volume, lung capacity, expiratory reserve
Exercise and blood pressure/heart rate
Role of liver in digestion
Enzymes important to digestion
Mechanical vs chemical digestion
Types of blood cells and function
Types of skin cells and function
Labeling a dissected rat