



Topics 1-4 – Exam Paper – 35% of marks

Topics 5-8 – Exam Paper – 35% of marks

Topics 1-8 – Exam Paper – 30% of marks

Summary

Topic 1: Biological molecules

Carbohydrates, lipids, proteins; Enzymes; DNA and RNA; ATP, water, inorganic ions

Topic 2: Cells

Cell structure; Cell division; Transport across cell membranes; The immune system

Topic 3: Organisms exchange substances with their environment

Gas exchange; Digestion and absorption; The heart and blood transport in animals; Water and glucose transport in plants.

Topic 4: Genetic information, variation and relationships between organisms

DNA, genes and chromosomes; Protein synthesis; Genetic diversity by mutation or meiosis Classification and taxonomy.

Topic 5: Energy transfer in and between organisms

Photosynthesis; Respiration; Energy and ecosystems; Nutrient cycles

Topic 6: Organisms respond to changes in their internal and external environments

Control of Heart Rate; The nervous system and receptors; Muscles; Control of body temperature, blood glucose and blood water.

Topic 7: Genetics, populations, evolution and ecosystems

Genetic inheritance; Evolution and natural selection; Ecosystems and ecology.

Topic 8: The control of gene expression

Control of gene expression; Using genome projects; Gene technologies and genetic engineering

Students will also complete 12 required practical's over the two years including: Investigation into the effect of a named variable on the rate of an enzyme-controlled reaction; Production of a dilution series of a solute to produce a calibration curve with which to identify the water potential of plant tissue; Dissection of animal or plant gas exchange or mass transport system

For more information follow these links with your phone:

