20% Cell Biology

Microbiology Biotechnology

Structure and function of cells: chemical components organelles cell metabolism protein synthesis transport through membranes mitosis and meiosis

25% Animal Anatomy & Physiology (emphasis on vertebrates)

Structure and function of tissues and organs involved in: digestion and nutrition circulation reproduction and development regulation (neural and hormonal) respiration excretion immunity

5% Ethology

15 % Plant Anatomy & Physiology (emphasis on seed plants)

Structure and function of tissues and organs involved in: photosynthesis, transpiration and gas exchange transport of water, minerals and assimilates growth and development reproduction (ferns and mosses included) behavioural systems conflict behaviour causes of behaviour learned behaviour

10% Ecology

ecosystems bio-geochemical cycles population structure and dynamics biosphere and man food relationships energy flow succession

5% Biosystematics

structure and function evolutionary and ecological relationships among typical organisms in major groups (Phyla and Classes only)

20% Genetics & Evolution

variation: mutation and modification Mendelian inheritance multiple allelism, recombination, sex linkage Hardy-Weinberg principle mechanism of evolution