**Unit 3 Topics List**

3.1 Population Dynamics

* -Exponential Growth
* -BR, DR, Fertility, Doubling Times, Rule of 70
* -Age/Sex Pyramids
* -Demographic Transition
* -Use of Models in Predicting Growth

3.2 Natural Capital

* -Natural capital and natural income
* -Renewable, Replenishable and Non-Renewable Naturals Capital
* -Dynamic Nature and Concept of a resource
* -Intrinsic value of the Environment
* -Sustainability
* -Sustainable development
* -Stockholm Declaration and other developments (art Summits)
* -Calculating Sustainable Yield
* -Maximum Sustainable Yield

3.3 Energy Resources

* -Range of Energy Resources
* -Advantages and Disadvantages of Energy Sources
* -Advantages and Disadvantages of Renewables
* -Factors which affect the choice of energy generation

3.4 The Soil System

* -Soil Systems
* Soil profiles
* -Soil Forming Processes
* -Soil Structures and Properties
* -Soil Degradation
* -Soil Conservation Measures

3.5 Food Resources

* -Food Production and Distribution—Imbalances in Global Food Supply
* -Efficiency of Terrestrial and Aquatic Food Production Systems
* -Inputs, outputs and Environmental Impact of Terrestrial Food Production systems
* -Links between social systems and food production systems

3.6 Water Resources

* -Earth’s Water budget
* -The sustainability of freshwater resource usage

3.7 Limits to Growth

* -Explain the difficulties in applying the concept of carrying capacity to local human populations
* -Re-use and recycling—changing carrying capacities

3.8 Environmental demands of human populations

* -Ecological footprints
* -Calculating ecological footprints
* -Ecological footprints—MEDCs and LEDCs
* -Population policies—national and international—and population dynamics and growth
* -International Development Policy—Millennium Development Goals
* -The relationship between population, resource consumption and technological development