

**B. Sc. REGULAR PROGRAMME**  
**ENVIRONMENTAL SCIENCE**  
**(2018-19)**  
**Semester II:UGENS18CR102**  
**Ecosystem Dynamics**

<b>Credit I: Ecosystem</b>	<b>15 hours</b>
1.1 Ecosystem: Concept and Definition	
1.2 Structure and function of ecosystem	
1.3 Concept of Food chain, food web and trophic level	
1.4 Ecological pyramids	
1.5 Energy flow in ecological systems, energy efficiencies	
<b>Credit II: Major Ecosystems</b>	<b>15 hours</b>
2.1 Forest ecosystem	
2.2 Grassland ecosystem	
2.3 Wetland ecosystem	
2.4 Agro-ecosystem	
2.5 Aquatic ecosystem	
<b>Credit IV: Energy and Environment</b>	<b>15 hours</b>
3.1 Renewable and Non-renewable energy resources: world scenario	
3.2 Hydro Power	
3.3 Wind Power	
3.4 Thermal Power	
3.5 Nuclear Power	
<b>Credit-IV: Natural Resources</b>	<b>15 hours</b>
4.1 Concept and classification of natural resources	
4.2 Forest resources of JK	
4.3 Fisheries resources of India	
4.4 Mineral resources of JK	
4.5 Medicinal wealth of JK	
<b>Credit V and VI: Laboratory Course</b>	
1. Estimation of primary productivity in a terrestrial ecosystem	
2. Estimation of standing biomass in a terrestrial ecosystem	
3. Determination of IVI	
4. Collection and identification of medicinal plants	
5. Estimation of chlorophyll content	
6. Estimation of speed and velocity of lotic ecosystems	
7. Estimation of SCD transparency in lotic systems	
8. Estimation of depth of a lotic system	
9. Identification of basic rock forming minerals	
10. Study of texture and color of different soils	