**Dr. Rima Kumari: Date: 13/10/2020**

Online class and e- content for BSc IIIrd year students

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| Date and Time | Online class medium  | E. content topic |
| 09/10/202001.20 p.m  | Via Google meetLink: Meeting URL: https://meet.google.com/xzk-haap-pcg | **Sub- Division of Ecology** |

Sub-divisions of Ecology

Ecology was earlier divided into plant and animal ecology. However, modem ecology does not make any such distinction since plants and animals are intimately interconnected and interdependent amongst themselves and on their environment.

The three main subdivisions of ecology today are given below:

i) Autecology, ii) Synecology, iii) Habitat ecology.



1. **Autecology:**

It is the study of individual species or individuals in relation to the environment. There are two approaches to autecological studies (a) autecology of species where individual species are studied (b) population ecology where individuals of the same species are studied.

1. **Synecology:**

It is the study of the community of living organisms as a unit. The difference between autecology and synecology could be explained by the following example. If a neem tree (or several peem trees) or a crow (or several crows) are studied in relation to the environment then this would be an autecological study. However, if the Ecosystem

study deals with a forest community as a whole in which many different buds, trees and animals share the same area, then it would be called a synecological approach.

Synecological studies can be of two types.

a) community ecology is concerned with the study of biotic (living) community comprising of interdependent plants and animals in a particular area, b) ecosystem ecology which is a recent development in ecology. It deals with the community of living organisms and their environment as an integrated unit of nature.

iii) Habitat ecology : It is the study of the habitat or environment of organisms and its effect on the organisms. In this approach different types of habitats such as terrestrial, fresh water, marine, and estuarine are the focus of study.