

Question → Write short notes on:-

(i) Biological indicator (ii) Ecological niche (iii) Ecological equivalent.

(i) Biological indicator → Where any individual, species or community is utilized as index or scale of environmental condition, it is called as biological indicator. When plants are used to show the response of climatic influence, then they are called plant indicator.

Plants are the indicator of climatic procedures and users.

The indicators have great importance due to the fact that they give exact idea called plant indicator. Forestation or any other best use of land.

Plants show indication of climate e.g. evergreen forest occurs where there is a high rainfall in both the seasons, grassland show heavy rainfall in summer and low rainfall in winter while indicate lesser rainfall in the whole year.

(ii) Ecological niche → The term niche was first introduced by Grimel in 1917 to explain micro-habitats. According to him, niche is the ultimate distributional unit not be confused with the word habitat because habitat is the place where an organism lives. The ecological niche based on these aspects (place and function) is of three type. -

(a) Spatial or Habitat niche → It is the physical place where an organism lives or the place occupied by the plant or organism.

(b) Trophic niche → It is the functional role of an organism or trophic position of organism.

(c) Multidimensional or Hyper volume niche → It is the position in the environmental gradients.

(iii) Ecological equivalents → The organism that occupy the same ecological niches in different geographical regions are known as ecological equivalents. The organism that occupy the same equivalent and occur in widely separated regions are generally taxonomically much different. For example, in a grassland ecosystem the species of grasses are quite different particularly where the regions are widely separated.