8. What is Lichen? Describe classification distribution, structure, reproduction and economic importance.

Systematic Position →

Division - Mycota
Sub-division - Eumycota.
Class - Lichens.
Sub-class - Ascolichens.
Series - Gymnocarpeae
Order - Parmeliales
Family - Parmelia (Foliose lichen)
Genus - Parmelia (Foliose lichen)
Usnea (Fruticose lichen)

The term lichens was first used by Theophrastus to denote a superficial growth on bark of the trees, where as Smith (1955) describe them as perennial aerial plants but lichen is not a single plant but it is a symbiotic association of a mycobiant (fungi) and phycobiant (algae) organism. In a lichen plant a major part forms the fungal and provides shelter, protection and moisture content to the algal component, where as the algae supplies organic food matter to the fungi and thus they together form a very good example of symbiosis. If both the members are dissociates from such association they can

survive independently. All type of reproduction takes place in fungal group only. Each series of lichen having specific algae and particular fungus. It ~~and~~ The fungi obtained their food either from saprophytically and parasitically from the living bodies of host organism but algae synthesize their food from photosynthesis. Bold (1959) has proposed the name "Mycophycophyta" because the dual algal and fungal nature of the lichens.

DEFINITION → Lichens are organisms formed by symbiotic association between a fungus and an alga. The lichen symbiosis is mutualistic. (आपसी)

CLASSIFICATION OF LICHENS → Lichens have been divided into two groups or classes based purely on the nature of the fungal elements and the kinds of fructification. They are —

(A) Ascolichens → Here the fungal component is an ascomycetes like Usnea, Physcia, graphis etc.

The ascolichens are sub-divided into two sub-group on the basis of fruiting bodies. They are —

(a) Gymnocarpeae → Here the ascocarp is of an apothecium type.

(b) Pyrenocarpeae → Here the ascocarp is perithecium type.

G. L chopra (1934) describe 38 genera of ascolichens from India.

(2) Basidiolichens → The fungal components belongings to basidiomycetes like Cora, Corella, dictyonema etc.

DISTRIBUTION OF LICHENS → Lichens are world wide in distribution and are represented by 400 genera and 1700 species. They occurs on bare dry wall, bark of tree trunks, dry and steep rocks, bare ground, roof fences, marine, some are xerophytic, hot, dry and cold condition except near industrial smoky areas. They form dominant vegetation in cold region and arctic region where condition are unfavourable for the growth of other plants. According to their habitat lichens are divided into categories, they are-

(a) Soxicolous → Lichens which are stone or rocks lovers, they grow in cold region.

(b) Corticolous → Lichens which are bark lover they grow in moist place and most are epiphytes.

(c) Tericolous → Lichen which are terrestrial and thus in habit the soil.

The growth in lichens

are very slow. The factors favouring lich
growth are direct light, cold temperatu
pure atmosphere, moisture and firm
substratum except hot and dry summe