**Unit 1: Introduction to fungi** **LL** **(6 lectures)**

General characteristics; Affinities with plants and animals; Thallus organization; Cell wall composition; Nutrition; Classification.

**Introduction**

The study of fungi is called mycology. The scientist who study fungi is called mycologist. The word mycology derived from mykes means mushroom and logos means discourse or study. The study of fungal diseases is termed as fungal pathology. According to Alexopoelus (1962) the fungi include nucleated spore bearing a chlorophyll less organism generally reproduces sexually and whose filamentous branch somatic structure are surrounded typically by cell walls certaining fungus cellulose or chitin or both.

Bessey (1968) defined fungi as fungi are chlorophyll less non vascular plant whose reproductive and vegetative structure donot permit them to be assign to positions among recognised group of higher plants or algae.

Anton de Bary (1858) may be designated as father of modern mycology.

**General characteristics of Fungi**

1. Fungi are found almost all over the world where life is possible. Therefore they are Universal in India in distribution.
2. They are terrestrial as well as aquatic inhabitat.
3. The body of fungi generally ranges from unicellular to branch filamentous hyphae which from a net like structure called mycelium.
4. Due to the absence of photosynthesis pigments fungi are heterotrophic in their nutrition i.e. they can grow as saprophytes or parasites.
5. The main component of the cell wall of the fungi is the fungal cellulose knpwn as chitin
6. Hyphae may be coloured or colourless, branched or unbranched with or without position wall.
7. The protoplasm is vacuolated, granular and reticular in nature.
8. After sexual reproduction a special type of spore bearing body is formed which is variously termed as fruit body, fructification or sporophore etc.
9. There are five basic type of life cycle in fungi i.e. asexual haploid, haploid-dikaryotic, haploid – diploid and diploid.
10. Reserved food material of fungi includes glycogen, manniton, oil- globules and protein grains.
11. Reproduction of fungi takes place by means of vegetative, asexual and sexual method.
12. The thallus of the fungi is psedo parenchymatous.