Unit II: PLANT BIOLOGY (1 Credit, 15 Hours)

- General characters of microbes and plants
  - Criteria for classification (3 Domain System)
  - Mendels laws, hereditary and applications
  - Concepts and components of environment
  - Cell division
Nitrogen Fixation

Nitrogen fixation supports protein synthesis

1. Low N in environment
2. Cell differentiates as a specialized cell, the heterocyst
3. Creates setting for Nitrogenase enzyme
4. Enzyme converts $\text{N}_2 \rightarrow \text{NH}_4^+$
Classification of fungi

- **Zygomycetes (Common Moulds):** which produce through production of zygospores.

- **Ascomycetes (Sac fungi):** which produce endogenous spores called ascospores in cells called asci.

- **Basidiomycetes (Club fungi):** which produce exogenous spores called basidiospores in cells called basidia.

- **Deuteromycetes (Imperfect Fungi):** fungi that are not known to produce any sexual spores (ascospores or basidiospores). This is a heterogeneous group of fungi where no sexual reproduction has yet been demonstrated.