



Q.1. Give short answers of the following: (6x5=30)

- I. Define stele. Describe stelar system in plants.
- II. Draw and label different spore stages of Rust fungi.
- III. Describe methods of reproduction in *Spirogyra*.
- IV. Why *Ephedra* plant is known as connecting link between angiosperms and gymnosperms? Explain.
- V. What are auxospores? How their formation occurs in *Pinnularia*?
- VI. Define lichens. What are their different types on the basis of habitat and thallus organization?

Give brief answers of the followings.

- Q. No. 2: (a). Draw and describe life cycle of *Ustilago*. (5)  
(b). Draw and describe thallus structure in *Riccia*. (5)
- Q. No. 3: *Cycas* is a living fossil. Discuss. (10)
- Q. No. 4: (a) Write a note on Economic importance of Bacteria. (5)  
(b) Describe triphasic life cycle in *Polysiphonia*. (5)