

TIME ALLOWED: THREE HOURS

MAXIMUM MARKS: 100

NOTE: Attempt Any FIVE Questions in All.

- Q No. 1:** a) Describe the classification of Algae. Give examples of each algal group.
 b) Give an account of general features of Cyanophyta. Discuss the ecological importance of blue green algae.
(10 + 10 Marks)

- Q No. 2:** a) Write down the means of reproduction in fungi.
 b) Briefly explain the economic impact of Rust and Smut diseases on major agricultural crops in Pakistan.
(12 + 8 Marks)

- Q No. 3:** a) Differentiate between the sporophytes of liverworts and hornworts.
 b) Describe sexual reproduction in Marchantia.
(10 + 10 Marks)

- Q No. 4:** a) Explain the phenomenon of Alternation of Generation in Pteridophytes. What is its significance?
 b) Discuss the process of evolution of seed habit in land plants.
(12 + 8 Marks)

- Q No. 5:** a) Cycas is a living fossil. Discuss.
 b) Write down the internal structure of leaf of Pinus. What is its ecological importance?
(10+ 10 Marks)

- Q No. 6:** a) Discuss the Rules of International Codes of Botanical Nomenclature.
 b) Describe abnormal secondary growth in higher plants.
(12 + 8 Marks)

- Q No. 7:** a) Give the outline of Engler and Prantl's system of classification. What are its merits and demerits?
 b) Discuss the anatomical modification in ecologically different plants.

(12 + 8 Marks)