

M.Phil Science Examination
Paper-II : Life Science
May-2017

[Max. Marks : 70]

Time : 3 Hours]

Instructions: All questions carry equal marks
All questions are compulsory.
Illustrate your answers with neat diagrams wherever necessary

1. [14]
- (A) Discuss the Immunogenetics and its advantages.
OR
- (A) Explain the Types of Cytokines and their importance.
(B) Discuss the Complement Fixation Pathway and its significance.
OR
- (B) Discuss the Transplantation Immunology.
2. [14]
- (A) Discuss the characterization of Animal cultured cells.
OR
- (A) Discuss the requirements and laboratory set up for Animal cell culture.
(B) Explain the Nutritional mediums for plant tissue culture.
OR
- (B) Explain the production of Secondary metabolites and their applications.
3. [14]
- (A) Discuss the toxic effects and importance of LD₅₀, LC₅₀ and IC₅₀.
OR
- (A) Explain the Units of toxicity and estimation of toxicity.
(B) Define Toxicants. Describe classification of toxicants with suitable examples.
OR
- (B) Discuss Food Additives and their implications.
4. [14]
- (A) Explain the dynamics of Ecosystem with structural organization.
OR
- (A) Discuss the Biotic and abiotic interactions with suitable examples.
(B) Explain the causes and effects of Ozone depletion.
OR
- (B) Why Wild-life should be conserved? Discuss strategies and criteria for conservation and management of Wild-life.
5. [14]
- Answer **Any Two**
- (A) Explain Primary and Secondary immune modulation.
(B) Discuss the Cell Differentiation.
(C) Discuss the role of Water pollutants.
(D) Discuss the Teratogens and their implications.