

M.Phil Science Examination

Paper-II : Biochemistry

May-2017

BCH 602 (Recent Advances in Biochemistry)

Time: 3 Hours]

[Max Marks: 70

Instructions:

All questions carry equal marks

All questions are compulsory.

Illustrate your answers with neat diagrams wherever necessary

1. [14]
- (A) Explain the important features and characterization of Cultured cells and their applications.
- OR
- (A) Discuss the composition of Serum-free media and its importance.
- (B) Explain the technique and requirements for Plant tissue culture.
- OR
- (B) Discuss the Cloning and Regeneration for Plant tissue culture.
2. [14]
- (A) Explain the mechanism and regulation of Enzyme action.
- OR
- (A) Discuss the Allosteric regulation with examples. Add its significance.
- (B) Explain the Ramachandran Plot and emphasize its significance in configurationally determination of Protein.
- OR
- (B) Discuss the conformation of Proteins and add its significance in cellular process.
3. [14]
- (A) Discuss the mechanism of Oxidative phosphorylation and add its Bioenergetics.
- OR
- (A) Explain Coupled reactions. Add it's Bioenergetic.
- (B) Discuss the Photophosphorylation and its energetic.
- OR
- (B) Discuss the Biological Transducers and their importance.
4. [14]
- (A) Discuss the interaction of Free Reactive Oxygen Species and Cellular Antioxidants.
- OR
- (A) Discuss the mechanism of Signal Transduction and its control.
- (B) Describe various Immunoglobulins and their role.
- OR
- (B) Describe the types of Fermenters and their applications.
5. [14]
- Answer Any Two**
- (A) Explain production of Secondary Metabolites and its significance.
- (B) Describe Primary cell culture and its advantages.
- (C) Discuss the Monoclonal antibody and its production.
- (D) Discuss the mechanism of microsomal ETS.