(*b*) Describe physico-chemical aspects of aquatic biology.

M.Sc.—Biotech-IVS(4.2)

2019

Time : 2 hours

Full Marks : 40

Answer any four questions from any one Group as per your specialization

The questions are of equal value

Candidates are required to answer in their own words as far as practicable

GROUP – A

(MEDICAL BIOTECHNOLOGY)

1. (*a*) Enumerate the molecular physiology of touch.

   (*b*) Explain the molecular process of muscle movement.

2. (*a*) Describe the process of fertilization.

   (*b*) Write about the inheritance of quantitative traits.

3. (*a*) Explain functional organization of centromere and telomere.

   (*b*) Explain molecular mechanism of Thalassaemia.

4. (*a*) Write about the recombinant antigen and their applications.

   (*b*) Describe the concept of vaccine development.

5. (*a*) Describe application of biotech based drugs and therapeutics.

   (*b*) Write an essay on the concept of human cloning.

6. (*a*) Describe the mechanism of Alzheimer's disease.

   (*b*) Give an account on role of nanotechnology in molecular medicine.

GROUP –B

(AQUATIC BIOTECHNOLOGY)

1. (*a*) Write an essay on nutritional biology of fresh water fishes.

   (*b*) Write about the present status of the knowledge and importance of aquatic biotechnology.

2. (*a*) Write a detailed account on marine pollution.

   (*b*) Write about risk assesment of genetically modified organisms.

3. (*a*) Write a detailed account on bio-absorption by sea weeds.

   (*b*) Describe hypersaline organisms and their role in biotechnology.

4. (*a*) Describe cytogenetics of fishes.

   (*b*) Describe the modern concepts in fish biotechnology.

5. (*a*) Describe microbial diseases of fishes and their control.

   (*b*) Describe induced breeding in fishes.

6. (*a*) Write an essay on sea weed resources.