## M.Sc. (Zoology) (CBCS Pattern) Sem-IV

## PSCZOOT15.7 / MSC2421 / MSC16.3 Special Group Paper-XV Aquaculture-IV (Fish Pathology and Fish Genetics)

P. Pages: 1 GUG/W/22/11445 Time: Three Hours Max. Marks: 80 Notes: 1. All questions are compulsory. All questions carry equal marks. 2. Draw well labelled diagram wherever necessary. 3. 1. Describe in detail the methods of fish preservation. 16 OR Write notes on: a) Nutritional value of raw fish. b) Biochemical composition of raw fish. Give an account on effect of water pollution on fish biology. 2. 16 OR Write notes on: a) Toxicity and allergy caused by fish consumption. b) Fish products and byproducts. Give an account on diseases caused in fishes by crustacean infection. **3.** 16 OR Write notes on: a) Diseases caused by fungi in fishes. b) Diseases caused by aquatic pollutants. 16 4. Give an account on transgenic fish. OR a) Comment on applications of genetic engineering in aquaculture. b) Describe the process of cryopreservation of fish gametes. 5. Attempt the following. 16 a) Objectives of fish preservation. b) Fish decomposition. c) Bacterial diseases of farm fish. d) Applications of fish genetic resources. \*\*\*\*\*\*