

B.Sc. Semester - 5 (CBCS) Examination**Oct/Nov. - 2023(Old Course)****FISHERIES BIOLOGY, ANIMAL HUSBANDRY, WILD LIFE, BIOTECHNOLOGY, TOXICOLOGY
(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Que.1(A) Answer the following question. (write any one out of two) (07)
1. Write a detailed note on various diseases of fishes.
 2. Describe various fish byproducts.
- Que.1(B) Answer the following question. (write any one out of two) (04)
1. Write a short note on fish nutrition.
 2. Write notes on a) Gill rot b) Argulus disease.
- Que.1(C) Answer the following question. (write any three out of five) (03)
1. Give names of top five important fishery resources in marine fisheries.
 2. Extract of which gland is used for the induced breeding in Indian major carp?
 3. Which hormones are useful in induced breeding in Indian major carp?
 4. What is the full form of CMFRI and CIFA?
 5. In induced breeding, which method of artificial fertilization is used for sticky eggs?
- Que.2(A) Answer the following question. (write any one out of two) (07)
1. Write a note on the modern method of apiculture?
 2. Write a note on the life cycle of Bombyx mori?
- Que.2(B) Answer the following question. (write any one out of two) (04)
1. Describe the enemies of silkworm
 2. Draw the labelled diagram of artificial bee hive.
- Que.2(C) Answer the following question. (write any three out of five) (03)
1. Name the biggest species of the honey bee.
 2. Classify honey bee up to species (without reasons).
 3. What is the role of salivary gland in silkworm?
 4. Which countries are leading producers of raw silk?
 5. List the species of bees used for Apiculture.
- Que.3(A) Answer the following question. (write any one out of two) (07)
1. What is a keystone species? Give a detail account of keystone species in a coastal marine ecosystem.
 2. Describe various biodiversity hotspots of India.
- Que.3(B) Answer the following question. (write any one out of two) (04)
1. Write a short note on ex-situ conservation.
 2. Write a brief description of Dachigam wildlife sanctuary.
- Que.3(C) Answer the following question. (write any three out of five) (03)
1. Kaziranga National Park is known for which endangered mammal species?
 2. Kanha National Park is located in which state?
 3. What is the full form of IBWL?
 4. Which is the first National Park of India?
 5. Give two examples of keystone species.

- Que.4(A) Answer the following question. (write any one out of two) (07)
1. Explain pBR322 vector.
 2. Explain in brief about gene cloning in biotechnology
- Que.4(B) Answer the following question. (write any one out of two) (04)
1. Give difference between iso-schizomer and iso-caudomers.
 2. Explain in short, types of stem cells.
- Que.4(C) Answer the following question. (write any three out of five) (03)
1. List out any two applications of stem cells.
 2. Which was the first restriction enzyme that was isolated?
 3. Give full form of YAC vector.
 4. Expand EcoR1 restriction enzyme.
 5. Cosmid vectors are fusion of.....
- Que.5(A) Answer the following question. (write any one out of two) (07)
1. Give classification of toxicant based on effect of health.
 2. Give general account on Arsenic toxicity along with its effect on health, symptoms and preventive measures.
- Que.5(B) Answer the following question. (write any one out of two) (04)
1. Explain mode of action of flouride.
 2. Give any four applications of toxicology.
- Que.5(C) Answer the following question. (write any three out of five) (03)
1. What are pesticides?
 2. Write any two symptoms of lead poisoning.
 3. Which heavy metals are toxic for human health?
 4. Chemical causing mutation in DNA sequence is called as.....
 5. What is a toxicant?
