

B.Sc. Semester - 5 (CBCS) Examination**Oct/Nov. - 2018****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. (any one out of two) (07)
1. Describe induced breeding in fresh water fishes.
 2. Describe in detail nutrient in balanced diet for fish in aquaculture practices.
- (B) Attempt any one. (out of two) (04)
1. Describe physical and chemical factors affecting in the inland fisheries.
 2. Write a note on fish diseases: Dropsy and Ichthyophthiriasis.
- (C) Attempt any three. (out of five) (03)
1. Which organism is responsible for Gill-rot disease?
 2. Usages of fish oil (body oil and liver oil).
 3. What is Ichthyology?
 4. Give scientific name of a common carp.
 5. Which zooplanktons are given as live food in inland fisheries?
- Que-2 (A) Answer the following. (any one out of two) (07)
1. Give an account of rearing of mulberry silk worm.
 2. Give an account of life cycle of honey bee.
- (B) Attempt any one. (out of two) (04)
1. Describe various methods of bee keeping.
 2. Life cycle of *Bombex mori*.
- (C) Attempt any three. (out of five) (03)
1. Give scientific name of Tussar silk moth.
 2. Give composition of silk.
 3. Give the name of enemies of honey bee.
 4. The length of queen honey bee of *Apis indica* is _____ mm.
 5. What is stifling?
- Que-3 (A) Answer the following. (any one out of two) (07)
1. Write a short note on Jim Corbet and Kaziranga National Parks.
 2. Describe Ex-situ and In-situ conservation.
- (B) Attempt any one. (out of two) (04)
1. Describe Key-Stone species with suitable examples.
 2. Write a note on WWF.

(C) Attempt any three. (out of five) (03)

1. Give the name of Biodiversity Hotspot in India.
2. What is endemic species? Give five examples of species endemic to India.
3. Give location and area of Dachigam National Park.
4. Make a list of mammalian fauna of Manas Protected Area.
5. Who is present President of WWF.

Que-4 (A) Answer the following. (any one out of two) (07)

1. Define bacteriophage and explain lysogenic and lytic cycle.
2. Describe restriction enzyme with suitable examples.

(C) Attempt any three. (out of five) (03)

1. λ (lamda) genom is approximately _____ kb in length.
2. Any two difference between chromosomal DNA and plasmid DNA.
3. EcoRI digestion produce _____ ends.
4. Define prophage.
5. Give source of Bam III enzyme.

Que-5 (A) Answer the following. (any one out of two) (07)

1. Classify toxicants based on origin.
2. Describe in detail the absorption of toxicants.

(B) Attempt any one. (out of two) (04)

1. Give detail account of route of exposure of toxicants.
2. Describe in detail effects of lead toxicity.

(C) Attempt any three. (out of five) (03)

1. Write any two long term effect of fluoride toxicity.
2. Define LC_{50} .
3. Who is considered as Father of Toxicology.
4. What is most common route on entry for toxic substance.
5. What are the effects on Arsenic toxicity on humans.
