

DBK-003-1015018

Seat No.

B. Sc. (Sem. V) (CBCS) Examination

June - 2022

Zoology: Paper - Z-502

(Fisheries Biology, Animal Husbandry, Wildlife, Biotechnology, Toxicology)

Faculty Code: 003

Subject Code: 1015018

Time : $2\frac{1}{2}$ Hours] [Total Marks : 70]

Instructions:

- (1) Illustrate your answers with neat and labelled diagram.
- (2) Figures to the right side indicate full marks for the question.
- 1 (a) Answer the following questions:
 4 (1) Give definition of Aquaculture.
 - (1) Give definition of Aquaculture.(2) What is inland fisheries?
 - (3) Name of any five fish by-products.
 - (4) Which organism causes fungus infection in fishes?
 - (b) Answer in brief: 2
 Fish ponds according to constructive method.
 - (c) Answer in detail:

 Minerals in fish nutrition.
 - (d) Write a note on:

 Explain induced breeding.
- 2 (a) Answer the following questions:
 - (1) Name of some Zooplankton used for fish feed.
 - (2) By which organism costiasis disease caused to fish?
 - (3) What is the main symptom of white spot disease in fish?
 - (4) Give names of basic types of fish pond.
 - (b) Answer in brief: 2
 Advantages of formulated food.

| | (c) | Answer in detail: | 3 |
|---|-----|--|---|
| | (d) | Brief note on Dropsy. Write a note on: Detail note on various method of fish preservation. | 5 |
| 3 | (a) | Answer the following questions: Give name of Bee enemies. Give scientific name of Silk worm. What is elasticity of raw silk fiber? Bee wax is used for which purpose? | 4 |
| | (b) | Answer in brief: | 2 |
| | (c) | Describe Indigenous method of Apiculture. Answer in detail: | 3 |
| | , , | Life history of Honey bee. | |
| | (d) | Write a note on: Explain in detail the rearing of silk worm. | 5 |
| 4 | (a) | Answer the following questions: (1) Which disease caused by protozoan parasite in silk worm? | 4 |
| | | (2) How many percentage of water present in Honey?(3) Artificial hives of honey bee are made of which material?(4) Give class and order of silkworm. | |
| | (b) | Answer in brief: | 2 |
| | (c) | Give Economic Importance of Honey bee. Answer in detail: | 3 |
| | (•) | Describe modern method of Apiculture. | |
| | (d) | Write a note on: Give short note on sericulture. | 5 |
| 5 | (a) | Answer the following questions: (1) Define Biodiversity Hotspot. (2) Define endemic species. (3) In which year Kanha national park declare as reserve | 4 |
| | | forest ? | |
| | (b) | (4) Dachigam sanctuary is located in which state? Answer in brief: | 2 |
| | | Write note on World wildlife fund. | |
| | (c) | Answer in detail : Describe IBWL. | 3 |
| | (d) | Write a note on: Write note on Hotspot Biodiversity. | 5 |

| 6 | (a) | Answer the following questions: (1) Define Endangered species. | 4 |
|---|-----|--|---|
| | | (2) Rhinoceros found in which national park of India. (3) Give full form of CITES. (4) Define Veystone species | |
| | (b) | (4) Define Keystone species.Answer in brief:Give location and Fauna of Jim Corbett National Park. | 2 |
| | (c) | Answer in detail : | 3 |
| | (d) | Explain Ex-situ conservation. Write a note on: | 5 |
| | (4) | Describe endangered and endemic species of India. | |
| 7 | (a) | Answer the following questions: | 4 |
| | | (1) What is endonuclease enzyme?(2) What is Plasmids? | |
| | | (3) Define Biotechnology. | |
| | | (4) Give any four name of types of cloning. | |
| | (b) | Answer in brief: | 2 |
| | | Explain Natural Cloning. | |
| | (c) | Answer in detail: | 3 |
| | (4) | Give Mechanism of Restriction enzymes. | 5 |
| | (d) | Write a note on: Brief account on Bacteriophase vectors | 3 |
| | | | |
| 8 | (a) | Answer the following questions: | 4 |
| | | (1) What is Exonuclease enzyme? | |
| | | (2) What is cloning? | |
| | | (3) Define restriction enzyme. | |
| | (b) | (4) What is white biotechnology? Answer in brief: | 2 |
| | (b) | Explain Yeast artificial chromosomes vector. | 2 |
| | (c) | Answer in detail : | 3 |
| | (•) | Write a note on Cell cloning. | |
| | (d) | Write a note on: | 5 |
| | | Give brief and basic introduction of Biotechnology. | |
| 9 | (a) | Answer the following questions: | 4 |
| | | (1) Define toxicology. | |
| | | (2) Write characteristics of arsenic exposure.(3) Define environmental toxicology. | |
| | | (4) Give structure of Arcenic. | |
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| | (b) | Answer in brief: | 2 |
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| | | Dental flurosis. | |
| | (c) | Answer in detail: | 3 |
| | | Explain skeletal fluorosis | |
| | (d) | Write a note on: | 5 |
| | | Give detail account on toxicity and treatment of Arcenic. | |
| 10 | (a) | Answer the following questions: | 4 |
| | | (1) Define toxicant. | |
| | | (2) Write characteristics of lead exposure. | |
| | | (3) What is mechanistic toxicologist? | |
| | | (4) Give structure of Lead. | |
| | (b) | Answer in brief: | 2 |
| | | What is metal? | |
| | (c) | Answer in detail : | 3 |
| | | Classification of toxicant. | |
| | (d) | Write a note on: | 5 |
| | | Explain Lead as toxic substance. | |