



MAK-003-001534 Seat No. _____

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

October / November – 2016

Zoology : Z - 502

(Applied Zoology, Wildlife & Biotech.) (New Course)

Faculty Code : 003

Subject Code : 001534

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) Illustrate your answer with neat and labelled diagrams.
(2) Figures to the right side indicate full marks of questions.

1 Give the answers in short : **20**

- (1) Give full form of CITES.
- (2) Give any two difference between male and female brooder fish.
- (3) Give the name of zooplanktons which are used as live food in aquaculture.
- (4) What meant by ichthyology ?
- (5) Which crustacean is caused for diseases in fishes ?
- (6) Write is definition of biotechnology.
- (7) Which ancient civilization are to believe pioneer for culture tilapia fish ?
- (8) Which hormones are added in formulated food as growth promoters ?
- (9) Which stage of life cycle is infective in brinjal fruit and shoot borer ?
- (10) Where is headquarter of WWF in India located ?
- (11) From which fishes we can get guanine particles ?
- (12) Give name of mammalian fauna of Dachigam National Park.
- (13) Which fish preservation method done by raising temperature ?

- (14) Which National Park is related with book “Jungle Book” ?
- (15) Give the name of host plants of cabbage butterfly.
- (16) Which vaccines are developed with the help of bio-technology ?
- (17) Give a scientific name of common carp.
- (18) Write only name of minor and major products from poultry industries.
- (19) Approximately how many percentage of carbohydrates are need in diet of fish ?
- (20) In sericulture which species are reared on Morus alba or Morus indica ?

- 2 (a) Write any **three** out of **six** : **6**
- (1) Process of making formulated food for fish in aquaculture.
 - (2) Indian board of wildlife.
 - (3) Sundrying fish preservation method.
 - (4) Stalking and nursery pond.
 - (5) Process of obtaining silk from cocoon in sericulture.
 - (6) Symptoms and treatment against costiasis diseases in fish.
- (b) Write any **three** out of **six** : **9**
- (1) Damage and life cycle of cabbage butterfly.
 - (2) Oil as fish by-product
 - (3) Kanha National Park
 - (4) History of aquaculture according to Asia.
 - (5) Scope of biotechnology.
 - (6) Chemical factors affecting fish farm.
- (c) Write any **two** out of **five** : **10**
- (1) Achievement through biotechnology in pharmaceutical industries.
 - (2) Mango hoppers
 - (3) Nutrition for fish in aquaculture practices
 - (4) Fish preservation methods by maintaining lower temperature.
 - (5) Necessity of wildlife and role of environmental education and publicity to conserve it.

- 3 (a) Write any **three** out of **six** : **6**
- (1) Diseases caused by saprolegnia parasitica in fish. (symptoms and treatment)
 - (2) Fish meal and Isin glass.
 - (3) Damage and control of brinjal fruit and shoot borer.
 - (4) Brooding pond.
 - (5) Fauna of Marine National Park of Gujarat.
 - (6) Advantages of formulated food.
- (b) Write any **three** out of **six** : **9**
- (1) Write short note on poultry industries products.
 - (2) Physical factors affecting in fish farm.
 - (3) Mango stem borer.
 - (4) Micro-organism used in biogas and alcoholic beverages production.
 - (5) Wildlife Protection Act - 1972.
 - (6) Smoking and canning fish preservation method.
- (c) Write any **two** out of **five** : **10**
- (1) Life cycle of silk moth.
 - (2) Importance of biotechnology in modern days.
 - (3) Induced breeding in carp fishes.
 - (4) Gir and Sundarvan National Park.
 - (5) Dropsy and white spot diseases in fish.
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