

UNIT WISE CONTENT ZO (N)-121

Block I. Applied Zoology

Unit 1: Aquaculture

General principles of aquaculture: Induced Breeding, Composite fish culture, Lay out of fish farm and its management and by-products of fishing industry. Prawn culture and Pearl culture.

Unit 2: Sericulture

Different kinds of silk producing insects. Host plants of silk insects. Rearing and diseases of silkworm. Reeling and fiber technology.

Unit 3: Apiculture

Honey bees of India. Management of bee colonies, bee enemies and their control. Extraction and processing of honey. Role of Honey bees in pollination.

Unit 4: Lac Culture

Different kinds of Lac producing insects. Host plants, life cycle and diseases of lac insects.

Unit 5: Poultry

Types of poultry breeds, poultry housing, farm and farm management. Grading, handling and marketing of eggs. Poultry diseases and their control.

Unit 6: Economic importance of Mammals : Economic Importance of mammals in agriculture, horticulture, dairy, leather, wool and fur industry

Unit 7: Store grain pests

Store grains pests: Pulse beetle (*Callosobruchus maculatus*), Rice weevil (*Sitophilus oryzae*), Wheat weevil (*Trogoderma granarium*), Rust red flour beetle (*Tribolium castaneum*) and Lesser grain borer (*Rhizopertha dominica*). Their systematic positions, habits, life cycle, nature of damage and control measures.

Unit 8: Pest Management

Biological and Chemical control:Elementary knowledge of pesticides and integrated pest management.

Unit 9: Parasitology: General characters and Classification up to order level, morphology (including adaptations), life cycle, pathogenecity, disease caused and control measures of *Entamoeba*, *Trypanosoma*, *Leishmania*, *Giardia*, *Ascaris*, *Ancylostoma*, *Enterobius* , *Wuchereria* and *Schistosoma*.

Unit 10: Cold water aquaculture and its scope in Uttarakhand

Objectives, Introduction , Scope of aquaculture for sustainable livelihood ,Aquaculture of cold water fishes Polyculture of carps, Sewage feed fisheries ,Summary ,Terminal Questions and Answers

Minor: Subject choice

B.Sc. II Semester (Zoology)

Lab Course

Marks = 50

Course Code: ZO (N)-121L

Credit =1

UNIT WISE CONTENT ZO (N)-121L

A complete record of laboratory work will be maintained by every student. The practical work will be consists of following:

Syllabus

Applied Zoology (Specimens, picture and slide study of economically important animals) Specimens, picture and slide study of economically important animals

: Applied Zoology

Unit 1 Specimens/ slides of Apis, Silk moth, Lac insect,

Unit 2 Phytoparasitic nemotodes, major carps and store grain pests

Unit 3 Pictures of economically important varieties of poultry and cattle

Unit 4 Parasites/Slides *Entamoeba*, *Trypanosoma*, *Leishmania*, *Giardia*, *Ascaris*, *Ancylostoma*, *Enterobius*, *Wuchereria* and *Schistosoma*.