



Dr.B.R. AMBEDKAR OPEN UNIVERSITY

FACULTY OF SCIENCE

DEPARTMENT OF ZOOLOGY

M.Sc., SECOND YEAR, ZOOLOGY (2025-26)

COURSE-V (IMMUNOLOGY)

Instructions:

- Do not copy the answer directly from any of the books.
- As far as possible, try to answer the questions independently in your own words.
- Each course has two assignments (Assignment-1 and Assignment-2). Maximum marks are 15 and Minimum marks (Pass marks) are 06 for each assignment. Each assignment has “three questions” and each question carries 05 marks.
- You must pass both assignment-1 and assignment-2.
- You must submit the handwritten assignments. Printed materials/ Xerox copies are not acceptable.
- Answers must be written in blue or black ballpoint pen. You may use colour pencils / colour pens for drawing diagrams.
- Answers must be written on one side of the paper only. Do not write on both sides of the paper.
- Each assignment must be a minimum of 10 pages and a maximum of 15 pages.
- You must sign at the end of each page of your answer sheet.

ASSIGNMENT-1

Max. Marks: 15

Min. Marks: 06

- I. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Write in detail about Secondary Lymphoid organs.
 2. Discuss immunodiagnosis and the different approaches of Immunotherapy.
 3. Write a note on Major Histocompatibility Complex (MHC) molecules

ASSIGNMENT-2

Max. Marks: 15

Min. Marks: 06

- II. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Discuss about the Organ – specific Autoimmune diseases.
 2. Discuss in detail on Antibody production.
 3. Describe the complement system.



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COURSE-VI (Animal Biotechnology)

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ASSIGNMENT-1

Max. Marks: 15

Min. Marks: 06

- I. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Write in detail about the working of Laminar Flow.
 2. Explain in detail about the production of any three antibiotics.
 3. Discuss about the two methods of Vermicomposting.

ASSIGNMENT-2

Max. Marks: 15

Min. Marks: 06

- II. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Discuss about the advantages of Generation of transgenic animals.
 2. Describe in detail about Polymerization Chain Reaction (PCR).
 3. Write about the clinical uses of HSC (Hematopoietic Stem Cells).



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COURSE-VII (Toxicology of Insecticides)

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ASSIGNMENT-1

Max. Marks: 15

Min. Marks: 06

- I. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Describe briefly the Presynaptic and Postsynaptic mechanism.
 2. Write an essay on Chitin synthesis inhibitors.
 3. What is the basic process involved in the Photodegradation of Insecticides

ASSIGNMENT-2

Max. Marks: 15

Min. Marks: 06

- II. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Discuss the toxicity, Mode of Action and Metabolism of Carbamates.
 2. Write in detail about Cytochrome P-450 dependent Mono-Oxygenase systems.
 3. Discuss about Arsenic compounds.



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COURSE-VIII A (Applied Entomology)

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- You must sign at the end of each page of your answer sheet.

ASSIGNMENT-1

Max. Marks: 15

Min. Marks: 06

- I. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Describe the various types of mouthparts found in insects.
 2. Write a note on principles of Integrated Pest Management.
 3. Write a note on the preparation of Shellac and Button lac

ASSIGNMENT-2

Max. Marks: 15

Min. Marks: 06

- II. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Describe the various pests of Cotton and suggest various practices that can be adopted to manage these pests.
 2. Describe the Bacterial and Fungal diseases of Silkworm along with their control measures.
 3. Describe the different types of members found in Termites colony and their function



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COURSE-VIII B (Applied Aquaculture)

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- Each assignment must be a minimum of 10 pages and a maximum of 15 pages.
- You must sign at the end of each page of your answer sheet.

ASSIGNMENT-1

Max. Marks: 15

Min. Marks: 06

- I. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Write in detail on the causes of Aquatic pollution.
 2. Write a note on Protozoan diseases of fishes.
 3. Explain the Integrated Farming of freshwater aquaculture and its importance.

ASSIGNMENT-2

Max. Marks: 15

Min. Marks: 06

- II. Answer **all** the following questions. (Draw diagrams, flow charts wherever necessary). Each question carries 05 marks.
1. Give a brief account on different types of Hatcheries.
 2. Give a detailed account on Viral Haemorrhagic Septicemia of Rainbow Trout (VHS).
 3. Give a brief account of fish seed production technology