



Dr.B.R. AMBEDKAR OPEN UNIVERSITY

FACULTY OF SCIENCE

DEPARTMENT OF ZOOLOGY

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

COURSE-I (ANIMAL DIVERSITY AND ECOLOGY)

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. Explain excretory organs in annelids and arthropods.
 2. Describe the general characters and classification with examples of class Reptilia.
 3. Write about National parks and sanctuaries in India?

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. Explain excretory organs in Mollusca and Echinodermata.
 2. Describe the general characters and classification with examples of class Mammals.
 3. Write a note on Ecosystem?



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COURSE-II (CELL AND MOLECULAR BIOLOGY)

Instructions:

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- You must pass both assignment-1 and assignment-2.
- You must submit the handwritten assignments. Printed materials/ Xerox copies are not acceptable.
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- 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. Explain the structure and function of Mitochondria
 2. Describe in detail about Electron Microscope.
 3. Describe in detail the structure of DNA

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. Write an essay on eukaryotic cell cycle and its regulation.
 2. Write a note on Endoplasmic Reticulum and Golgi complex.
 3. Describe in detail the types of RNA



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COURSE-III (ANIMAL PHYSIOLOGY & PHYSIOLOGICAL CHEMISTRY)

Instructions:

- Do not copy the answer directly from any of the books.
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- 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. Explains the role of hormones secreted by pituitary gland and adrenal gland.
 2. Describe in detail about ultra structure of skeletal muscle.
 3. Write an essay about blood clot formation

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. Write a brief description on important neurotransmitters.
 2. Describe in detail about the transportation of Respiratory gases
 3. Write a note on Bioluminescence?



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COURSE-IV (HUMAN CYTOGENETICS & DEVELOPMENTAL BIOLOGY)

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 about inborn errors of metabolism with examples.
2. Write a note on “Cleavage and its types.
3. Explain the Gametogenesis.

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. Explain cellular mechanism during Gastrulation.
2. Describe in detail about the limb development in Mammals.
3. Write a note on different types of Mutations with examples?