

Dr. Ambedkar Open University
Faculty of Science
Department of Zoology
M.Sc First Year (Zoology)
Course-I (Animal Diversity & Ecology)
Assignment-1 (2020-2021)

Maximum Marks-15
Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines**
1. Describe the circulating system in Echinodermata.
 2. Write a note on origin and evolution of Mammalian Heart.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Write a note on general characters and classification of Protozoa.
 2. Give a brief account on major geographical Realms/Biomes and its diversity.

Dr. Ambedkar Open University
Faculty of Science
Department of Zoology
M.Sc First Year (Zoology)
Course-I (Animal Diversity & Ecology)
Assignment-2 (2020-2021)

Maximum Marks-15
Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. Describe briefly the evolution of aortic arches in different vertebrates.
 2. Explain the excretory organs in Arthropoda.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Write a note on Oceanic region and its diversity.
 2. Write a note on Mammalian Ear.

Dr. Ambedkar Open University
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Department of Zoology
M.Sc First Year (Zoology)
Course-II (Cell and Molecular Biology)
Assignment-1 (2020-2021)

Maximum Marks-15

Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. Explain the structure and function of Endoplasmic Reticulum.
 2. Describe in detail the structure of DNA.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Describe in detail about Electron Microscope.
 2. Write a note on Tryptophan (trp) Operon – a negative repressible system.

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Course-II (Cell and Molecular Biology)
Assignment-2 (2020-2021)

Maximum Marks-15

Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. Enumerate the characteristics of second and third messengers in signalling and communication.
 2. Write an essay on genetic code and its importance in Protein synthesis.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Write a note on selective transport of proteins to and from the nucleus.
 2. Write a note on Tumor suppressor genes.

Dr. Ambedkar Open University
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Department of Zoology
M.Sc First Year (Zoology)
Course-III (Animal Physiology & Physiological Chemistry)
Assignment-1 (2020-2021)

Maximum Marks-15
Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. Describe the structure of pituitary and explain the role of hormones secreted by it.
 2. Describe in detail about the transportation of Respiratory gases.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Write a note on principles of Haemodynamics.
 2. Write an account on the enzymes involved in the process of digestion of proteins.

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Course-III (Animal Physiology & Physiological Chemistry)
Assignment-2 (2020-2021)

Maximum Marks-15
Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. What is synapse. Give an account on types of Synaptic Transmission.
 2. Discuss briefly the chemistry and structure of Disaccharides and Polysaccharides.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Discuss the role of complement C3b complex and Receptors in Opsonization in phagocytosis.
 2. Write a short note on ultra structure of skeletal muscle.

Dr. Ambedkar Open University
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Department of Zoology
M.Sc First Year (Zoology)
Course-IV (Human Cytogenetics & Developmental Biology)
Assignment-1 (2020-2021)

Maximum Marks-15
Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. Describe about the structural chromosomal abnormalities.
 2. Describe the Cellular mechanism during gastrulation and briefly give a comparative account of gastrulation in Fishes, Amphibian, Birds and Mammals.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Describe the procedure of FISH (Fluorescence In-Situ Hybridization) and its applications.
 2. What is Myogenesis? Explain the differentiation of skeletal muscle.

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Course-IV (Human Cytogenetics & Developmental Biology)
Assignment-2 (2020-2021)

Maximum Marks-15
Minimum Marks-06

Section- A (10 marks)

- I. Answer any one of the following questions in about 30 lines.**
1. Explain in detail about Single Gene disorders.
 2. Explain in detail the establishment axis in Mammals and Birds.

Section –B (5marks)

- II. Answer any one of the following questions in about 15 lines.**
1. Write a note on different types of Mutations with examples.
 2. Describe the ultra structure of an egg.