

ASSIGNMENT TOPICS
Master of Science(Zoology)

M.ScZd1.01 – INVERTEBRATA, BIOSYSTEMATICS, BIODIVERSITY

Answer any THREE questions
All questions carry equal marks

3 x 10 = 30

1. Describe the filter feeding mechanisms of polychaeta and Mollusca.
2. Explain the hydrostatic movement in coelenterate.
3. Describe the primitive nervous system in Echinodermata.
4. Explain the larval forms of free living invertebrates.
5. Describe the basic principles and criteria for zoological classification.
6. Write the rules of zoological nomenclature, international code and evolution of the theory of nomenclature.
7. Describe the causes for loss of biodiversity and threatened species.
8. Write the threats and biodiversity conservation methods.

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M.ScZd1.02 – CHORDATA AND WILDLIFE

Answer any THREE questions
All questions carry equal marks

3 x 10 = 30

1. Describe the importance of the study of vertebrate morphology.
2. Describe the development general structure and functions of the skin.
3. Write an essay on comparative account of respiratory organs.
4. Explain urinogenital system of mammals.
5. Write an essay on comparative anatomy of the spinal cord.
6. Explain different types of jaw suspensorium.
7. Write a detailed account on the bio-reserves in India.
8. Write the ecological approaches for wildlife management in India.

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M.ScZd1.03 – ENVIRONMENTAL BIOLOGY AND ANIMAL BEHAVIOUR

Answer any THREE questions
All questions carry equal marks

3 x 10 = 30

1. Give a brief account of classification and characteristics of lentic and lotic water bodies.
2. Write about the Environmental conditions that prevails in Tundra Mountains and Caves. Mention about the biodiversity in these terrestrial environments.
3. Discuss in detail about the community succession from marsh to forest.
4. Explain in detail about the energy flow in an ecosystem with few examples.
5. Write in detail about the population growth curves. Add a note on pearl logistic growth model.
6. Explain about the limiting factors and write on intra specific and inter specific competition.
7. Discuss in detail about biological rhythms in animals.
8. What is waste water? Explain the modern method of waste water treatment technologies with flow diagrams.

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M.ScZd1.04 – ANIMAL PHYSIOLOGY AND BIOMOLECULES

Answer any THREE questions
All questions carry equal marks

3 x 10 = 30

1. Define Osmoregulation. Write about the physiological aspects of osmoregulation in different animal groups?
2. How nitrogen excretion will take place in various animal groups? Discuss.
3. Write about various respiratory pigments present among different phylogenetic groups and write their functions?
4. Discuss in detail about the circulation of body fluids and their regulation.
5. Explain in detail about the physiology of muscle contraction.
6. Explain the structure of synapse with a neat labeled diagram and discuss in detail the synaptic transmission.
7. Discuss in detail about the electron transport chain.
8. Write the significance of glycogenolysis and glyconeogenesis and Explain the pathway.
