

PG-414

MZO-11

**M.Sc. DEGREE EXAMINATION –
JUNE 2019.**

First Year

Zoology

**FUNCTIONAL MORPHOLOGY, PHYLOGENY
PALAEOLOGY OF INVERTEBRATES AND
CHORDATES**

Time : 3 hours

Maximum marks : 75

SECTION A — (3 × 5 = 15 marks)

Answer any THREE questions out of Five questions.

- 1. Give a short note on Circulatory system of Molluscs.**
- 2. Draw and Explain the nervous system of Annelids.**
- 3. Explain the organisation and affinities of Rotifera.**
- 4. Give short notes on pulmonary respiration in Tetrapods.**
- 5. Comment on Evolutionary significance of Dinosaurs.**

SECTION B — (4 × 15 = 60 marks)

Answer any FOUR questions out of Five questions.

6. Given an account on gill and tracheal respiration in Arthropods.
 7. Describe the role of endocrine glands in Insects.
 8. Elaborate notes on Arthropods larval forms and its phylogenetic significance.
 9. Write an account on evolution of Kidney.
 10. Briefly describe the reproductive system and its accessory gland.
-

PG-415

MZO-12

**M.Sc. DEGREE EXAMINATION –
JUNE 2019.**

First Year

Zoology

GENETICS

Time : 3 hours

Maximum marks : 75

SECTION A — (3 × 5 = 15 marks)

Answer any THREE questions out of FIVE Questions.

1. Write a short note on Induced Mutation.
2. What are the Mendel's Laws of inheritance?
3. Comment on Euploidy and Polyploidy.
4. Explain the term Sexduction.
5. Comment on One gene - one enzyme theory.

SECTION B — (4 × 15 = 60 marks)

Answer any FOUR questions out of FIVE Questions.

6. Justify DNA as genetic material with Experimental evidence.
7. Distinguish Linkage and Crossing over.
8. What are the symptoms and variant form of Turner's syndromes?
9. Write an account on DNA transfer during Conjugation in bacteria.
10. Briefly describe the Human metabolic disorders and disease.

PG-416

MZO-13

M.Sc. DEGREE EXAMINATION –
JUNE, 2019.

First Year

CELL AND MOLECULAR BIOLOGY

Time : 3 hours

Maximum marks : 75

PART A — (3 × 5 = 15 marks)

Answer Any THREE questions out of FIVE questions.

1. Write short notes on Microtubules.
2. Briefly describe about smooth endoplasmic reticulum and its functions.
3. Illustrate the characteristic features of nucleolus.
4. Briefly explain about the cell cycle.
5. Write short notes on types of RNA.

PG-416

PART B — (4 × 15 = 60 marks)

Answer Any FOUR questions out of FIVE questions.

6. Describe in detail about the ultra structure and functions of plasma membrane.
 7. Illustrate the structure of mitochondria and its important functions.
 8. Explain in detail about the ultra structure and functions of chromatin.
 9. Write a detailed account on cell division involved in sperm and egg production.
 10. Explain in detail about the various process involved in protein synthesis and its significance.
-

PG – 417

MZO-14

M.Sc. DEGREE EXAMINATION – JUNE 2019.

First Year

Zoology

ANIMAL PHYSIOLOGY AND BIOCHEMISTRY

Time : 3 hours

Maximum marks : 75

PART A — (3 × 5 = 15 marks)

Answer any THREE questions.

1. Describe the mechanism of osmoregulation in terrestrial animals
2. Write short notes on neuroendocrine organs of insects
3. Comment on thermal migration and hibernation
4. Classify proteins and list the functions of proteins
5. Give a brief account on prostaglandins.

PART B — (4 × 15 = 60 marks)

Answer any FOUR questions.

6. Explain the mechanism of nerve impulse transmission across synapse.
 7. Describe the endocrinology of testis.
 8. Describe the structure and physiology of photoreceptor.
 9. Classify carbohydrates and add notes on their functions.
 10. Classify enzymes and list the factors that affect action of enzymes.
-

PG-418

MZO-15

**M.Sc. DEGREE EXAMINATION –
JUNE 2019.**

First Year

Zoology

ECONOMIC ZOOLOGY

Time : 3 hours

Maximum marks : 75

SECTION A — (3 × 5 = 15 marks)

Answer any THREE questions out of five questions.

1. Write short notes on beneficial insects.
2. Explain briefly about the role of exotic fishes in aquaculture.
3. Write short notes on apiary.
4. Briefly explain about the processing of cocoon after harvesting.
5. Write short notes on types of pure country fowl breeds.

SECTION B — (4 × 15 = 60 marks)

Answer any FOUR questions out of five questions.

6. “Mosquito is an insect vector of human diseases” – justify.
 7. Describe in detail about the polyculture and integrated fish farming.
 8. Explain in detail about the modern methods of apiary management.
 9. Write a detailed account on the life cycle of *Bombyx mori* with description of various stages.
 10. Explain in detail about the fowl disease management.
-