

(DZOO01)

M.Sc. DEGREE EXAMINATION,

DECEMBER 2019.

Zoology

First Year

SYSTEMATICS AND ANATOMY OF INVERTEBRATES

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

1. (a) Describe the various types of reproductive processes in protozoa.
Or
(b) Write short notes :
 - (i) Classification of Porifera
 - (ii) Development in sponges.
2. (a) Give a detailed account on parasitic adaptations of platyhelminthes.
Or
(b) Write short notes :
 - (i) Polymorphism in coelenterates
 - (ii) General organisation in nemathelminthes.
3. (a) Describe the general organisation of phylum annelida.
Or
(b) Write short notes :
 - (i) Trochophore larve
 - (ii) Classification of arthropoda.
4. (a) Give an account on the larval forms in echinoderms.
Or
(b) Write short notes :
 - (i) General organization of mollusca
 - (ii) Classification of echinodermata.

5. (a) Describe the general organization of Ectoprocta.

Or

(b) Write short notes :

(i) Sipuncula

(ii) Rotifera.

(DZOO02)

M.Sc. DEGREE EXAMINATION,

DECEMBER 2019.

First Year

Zoology

SYSTEMATICS AND ANATOMY OF CHORDATES AND GAMETE BIOLOGY

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

1. (a) Describe the general characters of phylum chordates.

Or

- (b) Write short notes on :

- (i) Urochordata
- (ii) Cephalo chordata.

2. (a) Give a detailed account on parental care in fishes.

Or

- (b) Write short notes on :

- (i) Poisonous snakes
- (ii) Classification of amphibia.

3. (a) Give a detailed account on common birds of India.

Or

- (b) Write short notes on :

- (i) Archaeopteryx
- (ii) Flightless birds.

4. (a) Give an account on South Indian mammals.

Or

- (b) Write short notes on :

- (i) Aquatic mammals
- (ii) General characters of mammals.

5. (a) Give an account on Vitelogenesis.

Or

(b) Write short notes on :

(i) Sperm

(ii) Ovary.

(DZOO03)

M.Sc. DEGREE EXAMINATION,
DECEMBER 2019.

First Year
Zoology

CELL BIOLOGY, GENETICS AND EVOLUTION

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

1. (a) Give an account on Mitochondria.

Or

(b) Write short notes on :

- (i) Plasma membrane
- (ii) Golgi complex.

2. (a) Give an account on protein synthesis.

Or

(b) Write short notes on :

- (i) *t* RNA
- (ii) DNA structure.

3. (a) Give an account on abnormalities of chromosomes.

Or

(b) Write short notes on :

- (i) Meiosis
- (ii) Giant chromosomes.

4. (a) Give an account on sex linked inheritance.

Or

(b) Write short notes on :

- (i) Multiple alleles
- (ii) Interaction of genes.

5. (a) What is evolution? Give an account on theories of evolution.

Or

(b) Write short notes on :

(i) Isolation

(ii) Hardy Weinberg law.

(DZOO04)

M.Sc. DEGREE EXAMINATION,
DECEMBER 2019.

First Year

Zoology

ANIMAL ECOLOGY AND WILDLIFE

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

1. (a) Give an account on thermal stratification of natural water bodies.

Or

- (b) Write short notes on :
- (i) Life supporting properties of water
 - (ii) Structure and functions of Ecosystem.

2. (a) Give an account on biogeochemical cycle of nitrogen.

Or

- (b) Write short notes on :
- (i) Concept of productivity
 - (ii) Food web.

3. (a) Give an account on concepts of habitat and ecological niche.

Or

- (b) Write short notes on :
- (i) Mutualism
 - (ii) Allelopathy.

4. (a) Give an account on energy partitioning and optimization.

Or

- (b) Write short notes on :
 - (i) Basic concepts of rates
 - (ii) K-selection.
- 5. (a) Give an account of IUCN classification of rare animals.

Or

- (b) Write short notes on :
 - (i) Hot spots
 - (ii) Wildlife trade.
-