

Subsidiary / General

B.Sc. Part - 1

Subsidiary/General

1 st Semester

F.M-20

6/8/20

Time : 3 Hrs

Group A – Non-Chordata

1. Bionomics, general character and classification (upto orders) of the following phyla : Protozoa, Porifera, Coelenterata, Platyhelminthes, Aschelminthes.
2. Detailed study of the structure and life history of the following types :-
 - a. Protozoa – Paramecium
 - b. Porifera – Sycon
 - c. Coelenterata – Obelia
 - d. Platyhelminthes – Fasciola
 - e. Aschelminthes – Ascaris

Group B - Ecology

Unit 1 : Introduction to Ecology

History of ecology, Autoecology and synecology, Levels of organization, Laws of limiting factors, Study of physical factors.

Unit 2 : Community

Community characteristics : species richness, dominance, diversity, abundance, vertical stratification, Ecotone and edge effect ; Ecological succession with one example

Unit 3: Ecosystem

Types of ecosystem with one example in detail,

Food chain : Detritus and grazing food chains, Linear and Y-shaped food chains.

Ashwini

Practicals

Time : 3 Hrs

F.M- 30

1. Dissection
2. Temporary mounting/Study of Planktons
3. Identification
 - (a) Permanent slides-2
 - (b) Museum specimen-2
 - (c) Plankton slides-1
4. Practical Record & Viva.

U.C. I Sem II GE
Zoology

B.Sc. Part - 1
Subsidiary/General
2nd Semester

Time : 3 Hrs

F.M- 50

Group A-Nonchordates

1. Binomials, General character and classification (upto orders) of the following phyla :
Annelida, Arthropoda, Mollusca, Echinodermata.
2. Detailed study of the structure and life history of the following types
 - (a) Annelida – Pheretima
 - (b) Arthropoda – Palaemon (c) Mollusca – Pila
 - (d) Echinodermata – Asterias

Group B-Cell Biology

1. Diversity of cell size & shape
2. Cell theory
3. Structure & function of Plasma membrane & cytoplasmic organelles.
4. Cell division.
5. Cell cycle.

F.M-30

Practicals

Time : 3 Hrs

1. Dissection
2. Temporary mounting/Cytology
3. Identification
 - (a) Permanent slides-2
 - (b) Museum specimens-2
 - (c) Cytological slides-1 (Meiosis/Mitosis.)
4. Practical Record & Viva.

F.M-70

B.Sc. Part - 2
Subsidiary/General
3rd Semester

Chordata

Time : 3 Hrs

Full marks

~~40~~ marks
50 (174)
600
(174)

1. Bionomics, general character and classification (upto order) of living chordates of the following groups: Protochordates, Cyclostomes, Pisces, Amphibia, Reptilia, Aves & Mammals.
2. Study the following types :
 - (a) Hemichordata : Balanoglossus
 - (b) Urochordata : Herdmania (including retrogressive metamorphosis)
 - (c) Cephalochordata : Amphioxus
 - (d) Fishes : Scoliodon, Pisciculture
 - (e) Reptiles : Biting & feeding mechanism of snakes
 - (f) Aves : Columba, flight adaptation
 - (g) Mammals : Characters, distribution and affinities of Prototheria & Metatheria

Practical

Time : 3 hours

Marks : 30

Experiments

1. Different adaptive features in vertebrates.
2. Temporary mounting
3. Identification:
(a) Permanent slides-2 (b) Museum specimens-2
4. Practical record & viva.

Details of Experiment

1. Different adaptive features in vertebrates - e.g., Exocoetus, Chamaleon, Draco, Bat etc.
2. Mounting: Scales of fishes, ampulla of Lorenzini.
3. Identification :-
(a) Slides from histology
(b) Museum Specimens

G.E.

B.Sc. Part - 2
Subsidiary/General
4th Semester

F.M: 50

1. Embryology

Gametogenesis, Fertilization, Parthenogenesis.

2. Physiology

Digestion, Respiration, Excretion.

3. Endocrinology

Histophysiology of following endocrine organs - Pituitary, Thyroid, Adrenal, Testis, Ovary and islets of Langerhans.

for
b.e.p.m.
11/12/20

P.T.O

4. Evolution

- (a) Sources of hereditary variations and their role in evolution
- (b) Darwin's theory of natural selection & Neo Darwinism (c) Isolating mechanism & their role in evolution

Practical

Time : 3 hours

Marks : 30

Experiments

1. Haematology
2. Physiology
3. Identification
4. Record & Viva

Details of Experiments

1. Haematology — Bleeding & Clotting time, Blood group, Hb%
2. Physiology — Pulse Rate Counting (Mammal), Frog-Rate of Heartbeat by Chimograph, Earthworm reflex action (Photoreceptors)

3. Identification

Embryological Slides-3

Endocrinological Slides-2

fw
11/5/22