

RAYALASEEMA UNIVERSITY, KURNOOL
ZOOLOGY SYLLABUS FOR I SEMESTER – 2022-23

PAPER – I: ANIMAL DIVERSITY – BIOLOGY OF NONCHORDATES

HOURS: 60 (5X12)

Max. Marks: 100

UNIT I

1.1 Principles of Taxonomy – Binomial nomenclature – Rules of nomenclature

Phylum Protozoa

1.2 General Characters and classification of protozoa up to classes with suitable examples

1.3 *Elphidium* (type study)

UNIT –II

Phylum Porifera

2.1 General characters and classification up to classes with suitable examples

2.2 Skelton in Sponges

2.3 Canal system in sponges

Phylum Coelenterata

2.4 General characters and classification up to classes with suitable examples

2.5 Metagenesis in *Obelia*

2.6 Polymorphism in coelenterates

Unit – III

Phylum Platyhelminthes

3.1 General characters and classification up to classes with suitable examples

3.2 Life cycle and pathogenecity of *Fasciola hepatica*

3.3 Parasitic Adaptations in helminthes

Phylum Nemathelminthes

3.4 General characters and classification up to classes with suitable examples

Unit – IV

Phylum Annelida

4.1 General characters and classification up to classes with suitable examples

4.2 Vermiculture - Scope, significance, earthworm species, processing,

Vermicompost, economic importance of vermicompost

Phylum Arthropoda

4.3 General characters and classification up to classes with suitable examples

4.4 Metamorphosis in Insects

4.5 *Peripatus* - Structure and affinities

Unit – V

Phylum Mollusca

5.1 General characters and classification up to classes with suitable examples

5.2 Pearl formation in Pelecypoda

Phylum Echinodermata

5.3 General characters and classification up to classes with suitable examples

5.4 Water vascular system in star fish

5.5 Larval forms of Echinodermata

Phylum Hemichordata

5.6 General characters and classification up to classes with suitable examples

5.7 *Balanoglossus* - Structure and affinities

ZOOLOGY PRACTICAL SYLLABUS FOR I SEMESTER

ZOOLOGY - PAPER - I

ANIMAL DIVERSITY - BIOLOGY OF NONCHORDATES

Periods: 24

Max. Marks: 50

Syllabus :

1. Study of museum slides / specimens / models (Classification of animals up to orders)

Protozoa: *Amoeba*, *Paramoecium*, *Paramoecium* Binary fission and Conjugation, *Vorticella*, *Entamoebahistoltyica*, *Plasmodium vivax*

Porifera: *Sycon*, *Spongilla*, *Euspongia*, *Sycon*- T.S & L.S, Spicules, Gemmule

Coelenterata: *Obelia* – Colony & *Medusa*, *Aurelia*, *Physalia*, *Verella*, *Corallium*, *Gorgonia*, *Pennatula*.

Platyhelminthes: *Planaria*, *Fasciola hepatica*, *Fasciola* larval forms – Miracidium, Redia, Cercaria, *Echinococcus granulosus*, *Taenia solium*, *Schistosoma haematobium*

Nemathelminthes: *Ascaris*(Male & Female), *Drancunculus*, *Ancylostoma*, *Wuchereria*

Annelida: *Nereis*, *Aphrodite*, *Chaetopteurs*, *Hirudinaria*, Trochophore larva

Arthropoda: *Cancer*, *Palaemon*, *Scorpion*, *Scolopendra*, *Sacculina*, *Limulus*, *Peripatus*, Larvae - Nauplius, Mysis, Zoa, Mouth parts of male & female *Anopheles* and *Culex*, Mouthparts of Housefly and Butterfly.

Mollusca: *Chiton*, *Pila*, *Unio*, *Pteredo*, *Murex*, *Sepia*, *Loligo*, *Octopus*, *Nautilus*, Glochidium larva

Echinodermata: *Asterias*, *Ophiothrix*, *Echinus*, *Clypeaster*, *Cucumaria*, *Antedon*, Bipinnaria larva

Hemichordata: *Balanoglossus*, Tornaria larva

2. Dissections:

1. **Prawn:** Appendages, Digestive system, Nervous system, Mounting of Statocyst

2. **Insect Mouth Parts**

3. **Laboratory Record work shall be submitted at the time of practical examination**

20C 1308

B.Sc (Three Year) DEGREE EXAMINATION
End Semester Examination
First Semester
ZOOLOGY
PAPER – I: ANIMAL DIVERSITY: BIOLOGY OF NON CHORDATES

Time: 3 Hours

Max. Marks: 75

PART – A

I. Answer all objective questions (10x1=10Marks)

1. Which exhibit Protozoan bioluminescence among the following?
A. Amoeba
B. Stentor
C. Noctiluca
D. Entamoeba
2. Name the scientist who proposed Binomial nomenclature
A. Antonie Van Leeuwenhoek
B. Carl von Linnaeus
C. Karl Ernst Von Baer
D. Gregor Mendel
3. How many germ layers present in sponges
A. 1
B. 2
C. 3
D. 4
4. Common name of Obelia
A. Sea fur
B. Sea Potato
C. Sea fan
D. Sea Plum
5. Excretory cells in Fasciola hepatica
A. Germ cells
B. Cnidoblast cells
C. Flame cells
D. Gland cells
6. Scientific name of Blood fluke
A. Taenia solium
B. Trichinella spiralis
C. Dracunculus medinensis
D. Schistosoma haematobium
7. Why Arthropods are the most successful group of animals
A. Presence of appendages
B. Presence of hemocoel
C. Presence of exoskeleton
D. Presence of many larvae
8. Which one is the largest class of animals?
A. Arachnida
B. Insecta
C. Crustacean
D. Merostomata
9. What are the locomotory organs in star fish?
A. Tube Foot
B. Setae
C. Parapodia
D. Fins
10. Radula is present in which class of Molluscans
A. Pelicypoda
B. Gastropoda
C. Scaphopoda
D. Monoplacophora

II. Answer all fill in the blank questions (5x1=5Marks)

11. Sleeping sickness disease caused by_____
12. _____ animal called as dead man fingers.
13. Scientific name of Eye worm_____
14. _____ is the largest class in animal kingdom.
15. Respiratory trees are present in_____

Answer all short answers questions (5x2=10 Marks)

16. Write any two rules of binomial nomenclature.
17. What are the differences between polyp and medusa?
18. What is Polyembryony.
19. Why the phylum named as Arthropoda
20. What is the use of chystalline style in Molluscans.

PART – B

III. Answer ALL the following questions (5x10=50 marks)

Draw labeled diagrams where ever necessary

21. (a) Describe the Principles of Taxonomy with examples?
Or
(b) Write the structure of Elphidium?
22. (a) Describe various types of Polymorphism in Coelenterata?
Or
(b) Explain about Sycon type of canal system in sponges?
23. (a) Write about parasitic adaptations in Helminthes?
Or
(b) Elaborate the life history and pathogenicity of Fasciola hepatica?
24. (a) Enumerate the economic importance of Vermicompost.
Or
(b) Explain different types of metamorphosis in Arthropoda?
25. (a) Write about affinities of Balanoglossus?
Or
(b) Explain about pearl formation in Pelecypoda?

This is prepared by B.O.S team of Rayalaseema University

Any doubts and queries please contact:

S.No	BoS Role	Name of the Faculty	Name of the College	Contact No.
1	Chairperson	Smt.G.Siromani	PSC & KVSC Govt. Degree College, Nandyal	9493285924
2	Member	Dr.S.Gopal	PSC & KVSC Govt. Degree College, Nandyal	9441114487
3	Member	Dr.H.Rama Subba Reddy	Govt. Degree College, Koilkuntla	9441985286