

ACHARYA NAGARJUNA UNIVERSITY :: NAGARJUNANAGAR-522 510

**STRUCTURE OF MODEL CURRICULUM FOR
ZOOLOGY IN UNDERGRADUATE DEGREEPROGRAMME
CBCS SYLLABUS SCHEDULE 2015-16**

S R. N O	YEAR	Sem ester	paper	TITLE	TEACHIN G HOURS WEEKLY	CREDIT S	EX. HOURS	MARKS/100		Total
								intext		
1	First year	I	Theory-I	Animal Diversity of invertebrates				25	75	100
			Practical-I	Animal Diversity of invertebrates				25	75	100
								50150		200

ACHARYA NAGARJUNA UNIVERSITY :: NAGARJUNANAGAR-522 510
B.SC. FIRST YEAR SYLLABUS 2015
ZOOLOGY SEMESTER I

Paper - I
ANIMAL DIVERSITY OF INVERTBRATES - I

Marks:- 75

Periods: 60Hours

UNIT I

10 hours

- 1.0 Brief History, Significance Of Diversity Of Invertebrates
- 1.1 Phylum Protozoa:- General Characters And Outline Classification Upto Classes With Examples; Type Study: Elphidium,
- 1.3 Phylum Porifera:- General Characters And Outline Classification Upto Classes With Examples; Type Study: Sycon, Canal System In Sponges.

UNIT II

16 hours

- 2.0 Phylum Coelenterata :- General Characters And Outline Classification Upto Classes With Examples; Type Study: Aurelia ,Polymorphism In Coelenterates: Corals And Coral Reef Formation.
- 2.1 Phylum Platy helminthes :- General Characters And Outline Classification Upto Classes With Examples; Type Study: Fasciola hepatica.
- 2.2 Phylum Nematelminthes :- General Characters And Outline Classification Upto Classes With Examples.

UNIT III

10 hours

- 3.0 Phylum Annelida :- General Characters And Outline Classification Upto Classes With Examples; Type Study: Leech., Metamerism In Annelida.
*Vermiculture : Scope, Significance of Vermiculture Earthworms Sps, Processing ofVermiculture,Vermicompost,Economic Importance Of Vermicost.

UNIT- IV

15 hours

- 4.0 Phylum Arthropoda:- General Characters And Outline Classification Upto Classes

With Examples; Type Study: Macrobrachium rosenbergii (Scampi).

*Peripatus-Structure, Affinities

4.1 Phylum Mollusca:- General Characters And Outline Classification Upto Classes
With Examples.

* Pearl Formation In Pelecypoda.

*Torsion In Gastropoda.

UNIT-V 9 hours

5.0 Phylum

Echinodermata: General Characters And Outline Classification Upto Classes

With Examples; Water Vascular System Of Star Fish.

5.1 Invertebrates Larval Forms: Amphiblastula, Ephyra, Trochophora, Nauplius, Glochidium
, Bipaneria .

5.2 Hemichordata: General Characters And Outline Classification Upto Classes

With Examples; Balanoglossus: Structure, Affinities & Tomaria Larvae

***Modern Text Book Of Zoology Invertebrates ---- R.L.kotpal**

***A Text Book of Invertebrates. Arumugamet.al.,**

*** Economic Zoology-Saras Publication**

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First year semester-I

Zoology Revised Practical Syllabus paper –I
(ANIMAL DIVERSITY OF INVERTEBRATES)

3hours/week

Animal Diversity of Invertebrates

Observation of the following slides/specimens/models

Protozoa:Elphidium, paramecium –Binary fission,Conjugation.

Porifera:Spongilla, Euspongia, Sycon, Sycon-L.S,T.S.

Coelenterata:Obeliacolony,Medusa ,Physalia, Velella,Corallium, Gorgonia,
Aurelia,Pennatula.

Platyhelminthes:Planaria, Fasciola hepatica larval stages of
Meracidum,Redia,Cercaria ,Echinococcusgranulosus.

Nematehelminthes: AscarisMale&Female ,Ancylostomaduodenale.

Annelida: Neries,Heteroneries,Aphrodite,Hirudo,Trochophore larva.

Arthropoda: Nauplius,Mysis,ZoeaLarvae,Anopheles,culex, mouth parts
(Male&Female).house fly mouth parts.Scorpion,
Crab,Prawn,scolopendra,Sacculina,Limulus,Paripatus.

Mollusca: hiton,Murex,Sepia,Loligo,Octopus,Nautilus,Glochidium Larva.

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

Hemichordata :Balanoglossus,Tornaria larva.

Demonstration of dissection/dissected /Virtual Dissections:

Leech / Prawn/Scorpion/Crab Digestive system,

Prawn Appendages ,

Prawn/Scorpion/Crab Nervous System

Pila/UnioDigestive System,

Mounting of statocyst, Mounting of Radula.

- **Compulsory one species to be adopted for demonstration only by the faculty.**
- **Computer Aided Techniques as per U.G.C Guidelines.**
- **Laboratory record work shall be submitted at the time of Practical Examination.**

*Each practical batch should not have more than 20 students

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FIRST YEAR

Zoology Model Theory Paper

Semester - I

Animal Diversity Of Invertebrates

Time:3hours

Marks:75

Part-A (5X5=25)

Answer any five questions , each question carries five marks, draw diagrams wherever necessary.

- 1) slipper animal cule.
- 2) Tornaria Larvae
- 3) . Nephron
- 4) Pearl Formation
- 5) Scampi.
- 6) Diptera
- 7) Significance Of Polymorphism.
- 8) Balanoglossus

Part-B(5X10=50)

Answer five questions , each question carries Ten marks, draw diagrams wherever necessary.

9 (a) life history of elphidium-explain

or

(b) spicules in sponges-Explain.

10 (a) write an essay of fasciola life cycle.

Or

(b) general characters & classification upto classes with examples of coelenterate.

11 (a) write an essay on processing of vermiculture.

Or

(b) write the external characters of leech.

12 (a) write an essay on peripatus structure & affinities .

Or

(b) torsion in gastropoda-explain.

13 (a) write an essay on water vascular system in star fish.

Or

(b) general characters & classification of hemichordate.
