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SRI VENKATESWARA UNIVERSITY : : TIRUPATI
ZOOLOGY SYLLABUS FOR I SEMESTER
ZOOLOGY –PAPER-I (THEORY)
ANIMAL DIVERSITY OF INVERTBRATES

W.E.F. 2016-17

PERIODS- 60

MAX. MARKS -75

Unit-I

- 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

- 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 Platyhelminthes :- 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

- 3.0 Phylum Annelida :- General Characters and Outline Classification upto Classes with Examples; Type Study: Leech., Metamerism in Annelida.
- 3.1 Vermiculture : Scope, Significance of Vermiculture Earthworms Sps, Processing of Vermiculture, Vermicompost, Economic Importance of Vermicost.

Unit-IV

- 4.0 Phylum Arthropoda:- General Characters and Outline Classification Upto Classes with Examples; Type Study: Macrobrachium rosenbergii (Scampi). Onychophora:- 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

- 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, Zoea, Mysis, Megalopa, Glochidium , Bipaneria .
- 5.2 Hemichordata: General Characters And Outline Classification Upto Classes with Examples; Balanoglossus: Structure , Affinities & Tornaria Larvae

Suggested Readings

1. Modern Text Book Of Zoology Invertebrates ---- R.L. Kotpal
2. Text Book of Invertebrates- Arumugam et.al.,
3. Economic Zoology- Saras Publication
4. Old Telugu academy

SRI VENKATESWARA UNIVERSITY : : TIRUPATI
ZOOLOGY MODEL QUESTION PAPER FOR I SEMESTER
ZOOLOGY –PAPER-I (THEORY)
ANIMAL DIVERSITY OF INVERTBRATES

TIME : 3. HOURS

MAX. MARKS -75

Part-A

(5X5=25)

Answer Any Five Questions, Each Question Carries Five Marks
Draw Diagrams Wherever Necessary.

- 1) Spicules
- 2) Sycon
- 3) Cephalic appendages
- 4) Mysis larva
- 5) Pearl Formation
- 6) Scampi.
- 7) Diptera
- 8) Halitemma

Part-B

(5X10=50)

Answer All questions , Each Question Carries Ten Marks.
Draw Diagrams Wherever Necessary.

- 9 (a) Describe the life history of Elphidium
or
(b) Give an account of the structure & functions of various cells in sponges
- 10 (a) Give an account of Development in Aurelia.
Or
(b) Describe the Reproductive system in liver fluke.
- 11 (a) Write an essay on process of vermiculture.
Or
(b) Describe the external characters of leech.
- 12 (a) Give an account on the Structure & Affinities of Peripatus.
Or
(b) Explain the Torsion in Gastropoda.

- 13 (a) Describe the Water Vascular System in Star Fish.
Or
(b) Write about the affinities of Balanoglossus.
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ZOOLOGY PRACTICAL SYLLABUS FOR I SEMESTER
ZOOLOGY –PAPER-I (THEORY)

ANIMAL DIVERSITY OF INVERTBRATES

PERIODS- 30

MAX. MARKS -50

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: Obelia colony, Medusa, Physalia, Velella, Corallium, Gorgonia, Aurelia, Pennatula.

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

Nematehelminthes: Ascaris Male & Female, Ancylostoma duodenale.

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

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

Mollusca: Chiton, 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/Unio Digestive 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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ZOOLOGY MODEL QUESTION FOR I SEMESTER
ZOOLOGY –PAPER-I (THEORY)
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MAX. MARKS -50

I) Draw a Labeled diagram of virtual dissection/dissected animals
of ----- 1X10 = 10M

II) Identification of six spotters/models/photographs, draw a labeled neat
diagram with salient features. 6 x 5 = 30 M

*One from Protozoa, Porifera, one from Cnidaria, Helmenthis, two from
Annelida, Arthropoda two from Mollusca, Echinodermata, Hemichordate.

III) Certified Record 10 M

Without Practical record –Student is not admitted for University exam

Spotters

Identification	}	1 M
Classification	}	
Labeled Diagram		-2 M
Comments		– 2 M