Sri A.S.N.M. GOVERNMENT COLLEGE (Autonomous)
CBCS SYLLABUS SCHEDULE 2018-20
B.SC. FIRST YEAR SYLLABUS
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 Platyhelminthes :- General Characters And Outline Classification Upto Classes With Examples; Type Study: Fasciola hepatica.

2.2 Phylum Nemathelminthes :- 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 of Vermiculture,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 , Bipinnaria .

5.2 Hemichordata: General Characters And Outline Classification Upto Classes with Examples; Balanoglossus:Structure , Affinities& Tornaria Larvae

Reference Books

1.The Invertebrates' by L.H. Hyman. Vol I, II and V. – M.C. Graw Hill Company Ltd .

2. 'Invertebrate Zoology' by E.L. Jordan and P.S. Verma., S.Chand and Company.

3. 'Invertebrate Zoology' by R.D. Barnes : W.B. Sauwonders CO., 1986.

4 'A text book of Zoology' by Parker, T.J. and Haswell, W.A., Mac Millan Co. London.

5. 'Textbook of Invertebrates' by Kavita Juneja and H.S. Bhamrah.

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

*A Text Book of Invertebrates. Arumugam et.al.,

* Economic Zoology- Saras Publication

Sri A.S.N.M. GOVERNMENT COLLEGE(Autonomous)
CBCS SYLLABUS SCHEDULE 2018-20
B.SC. FIRST YEAR SYLLABUS
ZOOLOGY SEMESTER II
Paper - II
ANIMAL DIVERSITY OF VERTBRATES- II

Marks:- 75
Periods: 60 Hours

UNIT-I **10hours**

1.0 Protochordates : Salient Features Of Urochordata And Cephalochordata
1.1 Structure of Branchiostoma & affinities
1.2 Structure And Life- History Of Herdmania , Significance Of Retrogressive Metamorphosis.
1.3 General characters Of Chordates & Its Origin

UNIT-II **12hours**

2.0 General Characters of Cyclostomes, Difference Between the Petromyzon & Myxine.
2.1 General Characters Of Fishes , Classification Up To Sub-Class Level With Example.
2.2 Type Study - Scoliodon : Morphology , Digestive System, Respiratory System , Circulatory System(Heart) , Nervous System (Brain).
* Migration In Fishes and Types of Scales, Dipnoi fishes.

UNIT-III **16 hours**

3.0 General Characters and Classification of Amphibians Up To Order Level.
3.1 Type Study - Rana : Morphology , Digestive System , Respiratory System , Circulatory System (Heart), Nervous System (Brain)And Reproductive System.
* Parental Care In Amphibians.
3.2 General Characters And Classification Of Reptilian Up To Order Level.
Type Study – Calotes : Morphology , Digestive System , Respiratory System , Circulatory System(Heart) , Nervous System(Brain) And Urinogenital System .

UNIT-IV **12 hours**

4.0 General Characters And Classification of Aves Up To subclass Level with Examples.
Type Study-PIGEON (Columbia livia) : Exoskeleton , Digestive System, Respiratory System , Circulatory System(Heart), Nervous System(Brain) And Excretory System.
* Significance of Migration in Bird, Flight Adaptations in Birds.

UNIT-V **10hours**

5.0 General Characters And Classification Of Mammalia Up To Sub-class Level With Examples. Type Study: Rabbit
* Dentition In Mammals.

Reference Books

1.E.L.Jordan and P.S. Verma, *Chordate Zoology* , S. Chand Publications.
2. Parker and Haswell, *Text book of Zoology* – Vertebrates.
*Modern text book of zoology vertebrates ---- R.L kotpal

Sri A.S.N.M. GOVERNMENT COLLEGE(Autonomous)
CBCS SYLLABUS SCHEDULE 2018-20
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: Obelia colony,Medusa ,Physalia, Velella,Corallium, Gorgonia,Aurelia,Pennatula.

Platyhelminthes: Planaria, Fasciola hepatica larval stages of Miracidum, 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

Sri A.S.N.M. GOVERNMENT COLLEGE(Autonomous)
CBCS SYLLABUS SCHEDULE 2018-20
First year semester-II
Zoology Revised Practical Syllabus paper-II
(Diversity of vertebrates)

3hours/week.

Observation of the following slides/spotters/models

Protochordata: Herdmania,Amphioxus, Amphioxus T.S. through Pharynx.

Cyclostomata: Petromyzon,Myxine.

Pisces: Pristis, Torpedo. Channa Pleuronectes, Hippocampus, Exocoetus Eheneis, Labeo, Catla, Clarius, Auguilla, Scales of fishes,Dipnoi fishes.

Amphibia: Ichthyophis, Amblystoma, Siren, Axolotal larva, Hyla, Rachophous.

Reptilia: Draco, Chemaeleon, Uromastix,Russels viper, Naja , Krait, Enhydrina, Testudo,Trionyx, Crocodile.

Aves: Passer,Psittacula ,Bubo,Alcedo , King fisher, Pigeon,corvus ,peacock ,Study of different types of feathers:Quill,Contour,filoplume,down.

Mammalia: Ornithorthynchus, Tacheglossus Hedgehog, Pteropus, Funambulus,Manis.Loris.

Osteology: Appenducular skeletons of varanus, pigeon and Rabbit--- skull, Forelimbs, Hind limbs and Girdles

Demonstration of dissection/dissected / Virtual Dissections:

1. V, VII, IX ,X Cranial Nerves of Shark/Locally available fishes.
2. Arterial system ,Venous system of Shark/Calotes/fowl/rat.
3. Digestive system of fish.

Laboratory record work shall be submitted at the time of Practical Examination.

Compulsory one species to be adopted for demonstration only by the faculty.

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. Spicules in sponges
   స్పంజికలలో కంటకాలు
2. Significance of Polymorphism.
   బహురూపకత యొక్క ప్రాముఖ్యత
3. Nematoblasts and statocyst
4. Annelia general characters
5. Nephron
6. Pearl Formation
7. Diptera
8. Balanoglossues structure

Part-B (5X10=50)

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

9 (a) Describe the life cycle of elphidium.

or

(b) Explain in detail Canal system in sponges.

10 (a) Write in detail the life cycle of Aurelia

or

(b) Write an essay of fasciola life cycle.

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.

FIRST YEAR
Zoology Model Theory Paper
Semester - II
Animal Diversity Of vertebrates

Time:3hours
Marks:75

Part-A (5X5=25)

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

1) Amphioxus

2) Placoid scale

3) Quill feather

4) Prototheria

5) Significance of Fish Migration

6) Draco

7) Emu

8) Apoda

Part-B (5X10=50)

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

9 (a) Life history of Herdmania-explain

or

(b) Explain the origin & general characters of chordates.

10 (a) Difference between the petromyzon & myxine

or

(b) Describe the arterial system of shark..

11 (a) Write an essay on parental care in amphibian.

or

(b) External characters of calotes.

12 (a) Write an essay on flight adaptations in bird.

or

(b) Respiratory system of pigeon -explain.

13 (a) Write an essay on Dentition in mammals.

or

(b) General characters of Rabbit.

FIRST YEAR

Zoology Practical Model Paper
Semester - I
Animal Diversity of Invertebrates

Time: 3hours
Marks: 75marks

1. Identify, draw diagram, label the parts and write notes for the following model/specimens. 6x5=30m
2. Identify, draw diagram, label the parts and write notes for the following slides. 3x5=15m
3. Draw neat labelled diagram of dissection 2x5=10m
4. Record and field trip of vermicompost 10+5=15m
5. Viva voce 5m

FIRST YEAR
Zoology Practical Model Paper
Semester - II
Animal Diversity of Vertebrates

Time: 3hours
Marks: 75marks

1. Identify, draw diagram, label the parts and write notes for the following model/specimens. 6x5=30m
2. Identify, draw diagram, label the parts and write notes for the following slides. 2x5=10m
3. Identify, draw diagram, label the parts and write notes for the following bones 3x5=15m
4. Draw neat labelled diagram of dissection 2x5=5m
5. Record and Viva voce 10+5=15m

FIRST YEAR
Zoology Practical Internal Model Paper
Semester - I
Animal Diversity of Invertebrates

Time: 1hours
Marks: 25marks

1. Identify, draw diagram, label the parts and write notes for the following model/specimens. 2x5=10m
2. Identify, draw diagram, label the parts and write notes for the following slides. 2x5=10m
3. Draw neat labelled diagram of dissection 1x5=5m

FIRST YEAR
Zoology Practical Internal Model Paper
Semester - II
Animal Diversity of Vertebrates

Time: 1hours
Marks: 25marks

1. Identify, draw diagram, label the parts and write notes for the following model/specimens. 2x5=10m
2. Identify, draw diagram, label the parts and write notes for the following slides. 1x5=5m
3. Identify, draw diagram, label the parts and write notes for the following bones 1x5=5m
4. Draw neat labelled diagram of dissection 1x5=5m