Lesson Plan

Class: B.Sc.I Zoology (2nd.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: January, 2018

Week/Day/Date

Week 1

* + 1. General characters and classification of Annelida up to order level
    2. Biodiversity and economic importance of Annelida

1.6.6 Type study – *Pheretima* (Earthworm)

Week 2

2.4 .11 Type study – *Pheretima* (Earthworm)

2.5.12 Type study – *Pheretima* (Earthworm)

2.6.13Type study – *Pheretima* (Earthworm)

Week 3

3.4.18 Type study – *Pheretima* (Earthworm)

3.5.19 Metamerism in Annelida

3.6.20 Trochophore larva

Week 4

4.4.25 General characters and classification of Arthropoda up to order level

4.6.27 Biodiversity and economic importance of insects

Lesson Plan

Class: B.Sc.I Zoology (2nd.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: February, 2018

Week/Day/Date

Week 1

1.4.1Type study – *Grasshopper*

* + 1. Type study – *Grasshopper*
    2. Type study – *Grasshopper*

*Week 2*

*2.4.8* Type study – *Grasshopper*

*2.5.9* Type study – *Grasshopper*

*Week 3*

*3.4.15* General characters and classification of mollusca up to order level

*3.5.16* General characters and classification of Mollusca up to order level

*3.6.17* Biodiversity and economic importance of Mollusca

Week 4

4.4.22 Type study of - *Pila*

4.5.23 Type study of - *Pila*

4.6.24 Type study of – *Pila*

Lesson Plan

Class: B.Sc.I Zoology (2nd.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

*Month: March, 2018*

Week/Day/Date

*Week 2*

*2.4.8* Torsion and detorsion in gastropoda

*2.5.9* Respiration and foot

*2.6.10 Class Test*

*Week 3*

*3.4.15* General characters and classification of Echinodermata up to order level

*3.5.16* General characters and classification of Echinodermata up to order level

*3.6.17* Biodiversity and economic importance of Echinodermata

*Week 4*

*4.4.22* Type study – *Asteries* (Sea Star)

*4.6.24* Type study – *Asteries* (Sea Star)

*Week 5*

*5.5.30* Type study – *Asteries* (Sea Star)

*5.6.31* Echinoderm larvae

Lesson Plan

Class: B.Sc.I Zoology (2nd.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: April, 2018

Week/Day/Date

Week 1

1.4.5 Aristotle’s Lantern

1.5.6 General Character of Hemichordata

1.6.7 Excursion Tour

Week 2

2.4.12 Type Study of Balanglosus

2.5.13 Type Study of Balanglosus

Week 3

3.4.19 Type Study of Balanglosus

3.5.20Revision of Pheretima

3.6.21 Revision of Pheretima

Week 4

4.4.26Revision of Grasshopper

4.5.27Revision of Grasshopper

4.6.28Revision of Pila

Lesson Plan

Class: B.Sc.II Zoology (4th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: January, 2018

Week/Day/Date

Week 1

1.1.1 Origin, Evolutionary tree of Amphibia

1.2.2 Origin, Evolutionary tree of Amphibia

1.3.3 Type study of frog (*Rana tigrina)*

1.4.4 Type study of frog (*Rana tigrina)*

1.5.5 Type study of frog (*Rana tigrina)*

1.6.6 Type study of frog (*Rana tigrina)*

Week 2

2.1.8 Type study of frog (*Rana tigrina)*

2.2.9 *Parental* Care in Amphibia

2.3.10 Type study of Lizard (Hemidactylus).

2.4.11Type study of Lizard (Hemidactylus).

2.5.12Type study of Lizard (Hemidactylus).

2.6.13Type study of Lizard (Hemidactylus).

Week 3

3.1.15 Origin, Evolutionary tree of Reptiles.

3.2.16 Origin, Evolutionary tree of reptiles.

3.3.17 Type study of Lizard (Hemidactylus).

3.4.18 Type study of Lizard (Hemidactylus).

3.5.19 Type study of Lizard (Hemidactylus).

3.6.20 Extinct reptiles.

Week 4

4.2.23 Extinct reptiles.

4.4.25 Poisonous and non-poisonous snakes; Poison apparatus in snakes.

4.6.27 Type study of Pigeon (*Columba livia)*.

Week 5

5.1.29 Type study of Pigeon (*Columba livia)*.

5.2. 30 Type Study of Pigeon (*Columba livia)*.

Lesson Plan

Class: B.Sc.II Zoology (4th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: February, 2018

Week/Day/Date

Week 1

1.4.1 Flight adaptation.

1.5.2 Principles of aerodynamics in Bird flight.

1.6.3 Migration in birds.

Week 2

2.1.5 Classification of mammals.

2.2.6 Classification of mammals.

2.3.7 Type study of Rat.

*2.4.8* Type study of Rat.

*2.5.9* Type study of Rat.

Week 3

*3.1.12* Type study of Rat.

3.3.14 Type study of Rat.

3.4.15 Adaptive radiations of mammals.

3.5.16 Dentition in Mammals.

*Week 4*

*4.1.19* Origin, conduction and regulation of heart beat.

*4.2.20* Cardiac cycle.

*4.3.21* Electrocardiogram, cardiac output.

4.4.22 Fluid pressure and flow pressure in closed and open circulatory system.

4.5.23 Composition and functions of blood & lymph.

4.6.24 Composition and functions of blood & lymph.

Week 5

5.1.26 Mechanism of coagulation of blood.

5.2.27 Coagulation factors; anticoagulants, haempoiesis.

Lesson Plan

Class: B.Sc.II Zoology (4th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

*Month: March, 2018*

Week/Day/Date

*Week 2*

2.1.5 Haempoiesis.

2.2.6 Exchange of respiratory gases and transport of gases.

2.3.7 lung air volumes.

2.4.8 Oxygen dissociation curve of hemoglobin.

*2.5.9* Bohr’s effect.

*2.6.10* Haburger’s phenomenon (Chloride shift).

Week 3

*3.1.12* Control / regulation of respiration.

*3.2.13* Patterns of excretory products viz. Amonotelic, ureotlic uricotelic.

*3.3.14*Ornithine cycle (Kreb’s – Henseleit cycle) for urea formation in liver.

*3.4.15 Class Test*

*3.5.16* Urine formation.

*3.6.17* Counter-current mechanism of urine concentration.

Week 4

*2.3* Osmoregulation, micturition.

2.4 Nature, origin and propagation of nerve impulse alongwith non-medullated nerve

fibre.

2.5 Nature, origin and propagation of nerve impulse alongwith meddullated nerve fibre.

2.6 Conduction of nerve impulse across synapse.

*Week 3*

*4.1.19* Conduction of nerve impulse across synapse.

*4.2.20* Structure and mechanism of hormone action.

*4.3.21*Structure and mechanism of hormone action.

4.4.22 Physiology of hypothalamus.

4.6.24 Physiology of pituitary.

Week 5

5.1.26 Physiology of thyroid.

*5.2.27* Physiology of parathyroid.

*5.3.28* Physiology of adrenal.

*5.5.30* Physiology of pancreas.

5.6.31 Physiology of gonads.

Lesson Plan

Class: B.Sc.II Zoology (4th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: April, 2018

Week/Day/Date

Week 1

1.1.2 Spermatogenesis, Capacitation of spermatozoa.

1.2.3 Ovulation, formation of corpus luteum.

1.3.4 Excursion Tour

1.4.5 Oestrous-anoestrous cycle.

1.5.6 Menstrual cycle in human.

1.6.7 Fertilization.

Week 2

2.1.9 Implantation and gestation.

2.2.10 Revision and group discussion of Rana

2.3.11 Revision and group discussion of Rana

2.4.12 Revision and group discussion of Hemidactylus

2.5.13 Revision and group discussion of Hemidactylus

Week 3

3.1.16 Revision and group discussion of Columba livia

3.2.17 Revision and group discussion of Rat

3.4.19 Revision and group discussion of Rat

3.5.20 Revision and group discussion of Rat

3.6.21 Revision and group discussion of physiology of circulation

Week 4

4.1.23 Revision and group discussion of physiology of respiration

4.2.24 Revision and group discussion of physiology of excretion

4.3.25 Revision and group discussion of nerve physiology

4.4.26 Revision and group discussion of physiology of Endocrine glands

4.5.27 Revision and group discussion of physiology of Endocrine glands

Lesson Plan

Class: B.Sc.III Zoology (6th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: January, 2018

Week/Day/Date

Week 1

1.1.1 Introduction to world fisheries.

1.2.2FishProduction, utilization and its demand.

1.3.3River system Fishes.

Week 2

2.1.8 Reservoir fisheries.

2.2.9 Pond, tank fisheries.

2.310 Captive and culture fisheries, cold water fisheries.

Week 3

3.1.15 Fishing crafts and gears.

3.2.16 Fishing crafts and gears.

3.3.17 Fin fishes and their culture.

Week 4

4.2.23 Crustaceans and their culture.

Week 5

5.1.29 Molluscs and their culture.

5.1.30 Molluscs and their culture

Lesson Plan

Class: B.Sc.III Zoology (6th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: February, 2018

Week/Day/Date

Week 2

*2.1.5* Study ofSugercane leaf-hopper *(Pyrilla perpusilla),* Sugercane Whitefly

*(Aleurolobus barodensis)* with their systematic position, habits and nature of

damage cause.

2.2.6Study ofSugercane top borer *(Sciropophaga nivella),* Sugercane root borer

*(Emmalocera depresella),* Gurdaspur borer *(Bissetia steniellus)*

With their systematic position, habits and nature of damage cause.

2.3.7Life cycle and control of *Pyrilla perpusilla* only.

*Week 3*

*3.1.12* Study of Pink bollworm (*Pestinophora gossypfolla),* Red cotton bug *(Dysdercus*

*Cingulatus),* Cotton grey weevil (*Myllocerus undecimpustulatus),* Cotton Jassid

(*Amrasca devastans)*with their systematic position, habits and nature of damage

caused

*3.3.14* Life cycle and control of *Pectinophore gossypiella.*

*Week 4*

*4.1.19* Wheat stem borer (*Sesamia inferens)* with its systematics position, habits, nature

Of damage caused.

*4.2.20* Life cycle and control of*Leptocorisa acuta.*

*4.3.21* Study of Gundhi bug (*Leptocorisa acuta),*Rice grasshopper *(Hieroglyphus*

*banian)*with their systematic position, habits and nature of damage caused.

Week 5

*5.1.26* Study of Rice stem borer *(Scirpophaga incertullus),* Rice Hispa *(Diceladispa*

*armigera)*with their systematic position, habits and nature of damage caused.

5.2.27Life cycle and control of *Aulacophora**faveicollis.*

Lesson Plan

Class: B.Sc.III Zoology (6th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

*Month: March, 2018*

Week/Day/Date

*Week 2*

*2.1.5* Study of*Raphidopalpa faveicollis* – The Red pumpkin beetle,*Dacus cucurbitas* –

The pumpkin fruit fly.Their systematics position, habits and nature of damage

caused.

*2.2.6* Study of *Tetranychus tecarius* – The vegetable mite, *Epilachna –* The Hadda

beetleTheir systematics position, habits and nature of damage caused.

*2.3.7 Class Test*

*Week 3*

*3.1.12* Reservoir fisheries.

*3.2* .13 Reservoir fisheries.

*3.3* .14 Pond, tank fisheries.

*Week 4*

*4.1.19* Pond, tank fisheries.

*4.2.20* River system Fishes.

*4.3.21* River system Fishes.

*Week 5*

*5.1.26* Captive and culture fisheries, cold water fisheries.

*5.2* .27 Captive and culture fisheries, cold water fisheries.

*5.3* .28 Captive and culture fisheries, cold water fisheries.

Lesson Plan

Class: B.Sc.III Zoology (6th.Semester)

Name of the Associate Professor: Dr.S.C.Sharma

Month: April, 2018

Week/Day/Date

Week 1

1.1.2 Life cycle and control of *Pyrilla perpusilla* only.

1.2.3 Life cycle and control of *Pyrilla perpusilla* only.

1.3.4 Excursion Tour

Week 2

2.1.9 Life cycle and control of *Pectinophore gossypiella*

2.2.10 Life cycle and control of *Pectinophore gossypiella*

2.3.11 Life cycle and control of*Leptocorisa acuta.*

Week 3

3.1.16 Life cycle and control of*Leptocorisa acuta.*

3.2.17 Life cycle and control of *Aulacophora**faveicollis*

Week 4

4.1.23 Life cycle and control of *Aulacophora**faveicollis*

4.2.24 Study of Gundhi bug (*Leptocorisa acuta),*Rice grasshopper *(Hieroglyphus*

*banian)*with their systematic position, habits and nature of damage caused.

4.3.25 Study of Gundhi bug (*Leptocorisa acuta),*Rice grasshopper *(Hieroglyphus*

*banian)*with their systematic position, habits and nature of damage caused.