

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-24

Semester: Even

Section: A

Name of Extension Lecturer – Dr. Amit Dev

Class: B.Sc. Medical 4th Sem.

Name of Subject: Zoology

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1st January – 15th January	Practical Slot Paper: Life and biodiversity of chordates I Chapter: 1. Characters, classification of class amphibia 2. Type study: Rana tigrina
Week 1 16 January - 20 January	
21st January	SUNDAY
Week 2 22nd January – 27th January	Economic importance of amphibians, Habitat, habits, morphology Digestive system Respiratory system Circulatory system Nervous system Sensory organs Urinary system Reproductive system
28th January	SUNDAY
Week 3 29th January - 03th February	Chapter: 2. 1. Characters, classification, examples of class reptilian 2. Type study of Hemidactylus Class Test: 1 st
04th February	SUNDAY
Week 4 05th February 10th February	Habitat, morphology and characters Digestive system Respiratory system Circulatory system Nervous system Sensory organs Urinary system Reproductive system
11th February	SUNDAY
Week 5 12th February – 17th February	Reptilia in general Poisonous and non poisonous snakes Characters 3 Type study: Columbia Livia classification, examples of class Aves Economic Importance of Bird Structure and kinds of feathers
18th February	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 6 19 th February – 24 th February	Digestive system Respiratory system Circulatory system Nervous system Sensory organs Urinary system Reproductive system Class Test: 2nd
25 th February	SUNDAY
Week 7 26 th February–02 nd March	Characters 4 Type study: Rat Habitat, habits, morphology, body wall Digestive system Respiratory system Circulatory system
03 th March	SUNDAY
Week 8 04 th March–09 th	Nervous system Sensory organs Urinary system Reproductive system
10 th March	SUNDAY
Week 9 11 th March–16 th March	Paper 2: Mammalian Physiology Chapter 1: Circulation origin, conduction and regulation of Heart Beat. Cardiac cycle Electrocardiogram Composition and function of blood Mechanism of blood coagulation.
17 th March	SUNDAY
Week 10 18 th March– 22 th March	Coagulation factors Anticoagulants and Haemopoiesis Fluid pressure Cardiac output
24 March	SUNDAY Week 11 23-31 March Holi Break

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

<p>Week 12 01st April – 06th April</p>	<p>Chapter: 2 Respiration Exchange of respiratory gases Transport of gas Lungs volumes Oxygen dissociation curve of haemoglobin Regulation of respiration</p>
<p>07th April</p>	<p>SUNDAY</p>
<p>Week 13 8th April – 13th April</p>	<p>Chapter 3: Excretion Patterns of excretory products Ornithine cycle Urine formation Counter current mechanism of urine concentration Osmoregulation</p>
<p>14th April</p>	<p>SUNDAY</p>
<p>Week 14 15th April – 20th April</p>	<p>Chapter: 4 Neural integration Nature, origin and propagation of nerve impulse alongwith medullated and nonmedullated nerve fibre Conduction of nerve impulse across Synapse</p>
<p>21st April</p>	<p>SUNDAY</p>
<p>Week 15 22nd April – 27 April</p>	<p>Chapter: 5 Chemical integration Structure and mechanism of hormone action Physiology of Hypothalamus Pituitary, Thyroid, Parathyroid, Adrenal, Pancreas and Gonads</p>
<p>28th April</p>	<p>SUNDAY</p>
<p>Week 16 29th April-30th April</p>	<p>Chapter: 6 Reproduction Spermatogenesis Capacitation of spermatozoa Ovulation Formation of corpus luteum Menstrual cycle in human Fertilization Implantation Gestation</p>

Pt NRS Govt. College, Rohtak

Lesson Plan for Odd Semester: Session 2023- 2024

Summary of Lesson Plan of College Faculty

**Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even
Section: A**

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Dr. Amit Dev , Department of Zoology

Class: B.Sc. Medical 3rd year 5th Semester Section: B

Summary of Lesson Plan of College Faculty

Name of College: **Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even**

Section: **A**

Name of Extension Lecturer. – **Dr. Amit Dev**

Class: **B.Sc. Medical. 4th Sem.**

Name of Subject: **Zoology**

26 July-6 December 2023

Week 1	Introduction to world fisheries:
26 July - 29 July	Production, utilisation and demand
30 July	SUNDAY
Week 2	Fresh water fishes of India:
31 July – 5 August	River System Reservoir, Pond, Tank fisheries, Captive and Culture Fisheries Cold water fisheries
6 August	SUNDAY
Week 3	Fishing Craft
7 August - 12 August	Fishing Gears
13 August	SUNDAY
Week 4	Fin fishes, Crustaceans, Molluscs and their culture
14 August – 19 August	
20 August	SUNDAY
Week 5	Fish Seed Production:
21 August- 26 August	Natural seed resources, its assessment, collection, Hatchery Production
27 August	SUNDAY
Week 6	Nutrition: Source of Food (Natural and Artificial)
28 August – 2 September	fish feed composition (Calories and Chemical ingredients)

Summary of Lesson Plan of College Faculty

Name of College: **Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even**

Section: **A**

Name of Extension Lecturer. – **Dr. Amit Dev**

Class: **B.Sc. Medical. 4th Sem.**

Name of Subject: **Zoology**

3 September	SUNDAY
Week 7	Field culture:
4 September – 9 September	Ponds - Running water, Recycled Water, case culture and Poly culture
10 September	SUNDAY
Week 11 September 16 September	Culture Technology: Biotechnology, Gene manipulation and cryopreservation of Gamets
17 September	SUNDAY
Week 9	Ecology:
18 September- 23 September	Basic concepts of Ecology, Definition, significance. concept of Habitat and Exolcological Niche
September 24	SUNDAY
Week 10	Factors Affecting Environment:
25 September- 30 September	Abiotic Factors, Light, Temperature, Humidity, Topography, Edaphic factor and Biotic factors
1 October	SUNDAY
Week 13	Ecosystem: Comcncept, components, properties and Functions
3 October- 7 October	Exolcological energetic and energy flow food chain and food web Trophic striucture, Exolcological Pyramids
8 October	SUNDAY
Week 14	Concept of Productivity
9 October- 14 October	Biogeochemical cuycle: reservoir pool, Gaseous cycle and sedimentary cycle Population Growth Curve

Summary of Lesson Plan of College Faculty

Name of College: **Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even**

Section: **A**

Name of Extension Lecturer. – **Dr. Amit Dev**

Class: **B.Sc. Medical. 4th Sem.**

Name of Subject: **Zoology**

15 October	SUNDAY
Week 15	Origin of Life:
16 October- 21 October	Concept and Evidences of evolution
22 October	SUNDAY
Week 16	Theories of Organic Evolution
23 October- 28 October	
29 October	SUNDAY
Week 17	Concept of Micro evolution
30 October- 4 November	comnccept of macro evolution comcnccept of Mega evolution
5 November	SUNDAY
Week 18	Convecept of Species
6 November- 9 November	
10 November- 16	Diwali Vacation
Week 19	Phylogeny of Horse
17 November - 25 November	Evolution of Man
26 November	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Lesson Plan for Even Semester: Session 2023- 2024

r. Devender, Department of Zoology

Class: B.Sc. Medical 4th Semester (Section B)

Paper II

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

16 January 2024 to 20th April 2024	
1 st January to 15 th January- Practical examination of odd semester	
<u>Week 1</u>	
16 January - 20 January	Introduction of Circulation, Cardiac cycle, closed and open circulatory system, Composition of blood and lymph,
21st January	SUNDAY
<u>Week 2</u>	
22rd January – 27th January	Blood coagulation and haemopoiesis, respiration introduction, exchange of respiratory gases, Transport of gases, air volumes, oxygen dissociation curve of Hb
28th January	SUNDAY
<u>Week 3</u>	
29th January - 03th February	Bohr's effect, regulation of respiration, excretion introduction, patterns of excretory products, Ornithine cycle, urine formation,
04th February	SUNDAY
<u>Week 4</u>	
05th February 10th February	Counter current mechanism of urine concentration, osmoregulation and micturion Nerve impulse propagation, Medulated and non modulated nerve fibers Class test 1
11th February	SUNDAY
<u>Week 5</u>	
12th February – 17th February	Conduction of nerve impulse through synapse Structure and mechanism of hormone action Physiology of hypothalamus, pituitary gland Assignments
18th February	SUNDAY
<u>Week 6</u>	
19th February – 24th February	Physiology of thyroid gland, parathyroid gland, adrenal gland, pancreas and gonads Reproduction introduction, spermatogenesis and oogenesis

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

25 th February	SUNDAY
Week 7 26 th February–02 nd March	Ovulation, corpus luteum, Menstrual cycle in human, fertilization, implantation and gestation
<u>Paper I</u>	
03 th March	SUNDAY
Week 8 04 th March–09 th March	Ambhibia introduction, Evolutionary tree, Type study of frog Class test 2
10 th March	SUNDAY
Week 9 11 th March–16 th March	Parental care in ambhibia, Reptiles introduction and type study of Lizard, Assignments
17 th March	SUNDAY
Week 10 18 th March– 22 th March	Type study of Lizard, Evolutionary tree and extinct reptiles
23 March – 31 st March	Holi break
Week 13 01 st April – 06 th April	General characters of Aves, Type study of Pigeon, flight adaptations and migration of birds
07 th April	SUNDAY
Week 14 8 th April – 13 th April	General characters of Mammals, Type study of Rat, Adaptive radiations in mammals and dentition
14 th April	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 15 15 th April – 20 th April	Submission of assignments and Queries will be taken.
21 st April	SUNDAY

Name of Teacher: Dr. Devender

Class: BSc Medical 3rd sem, Section B

Week	Class (B.Sc. Pass Course II year)
<u>Week 1</u> 26 July- 29July	Introduction, origin, evolutionary tree and classification
30 July	Sunday
<u>Week 2</u> 31July – 5August	Urochordata: characteristics, classification and affinities
6August	
Week 3 7 August - 12August	Type study of Urochordata “ Hardmania”
13 August	Sunday
Week 4	Cephalochordata: characteristics, classification and affinities

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

14 August – 19 August		
20 August	Sunday	
Week 5 21 August- 26 August	Type study of cephalochordate “Amphioxus”	
27 August	Sunday	
Week 6 28 August – 2 September	Cyclostomata: characteristics, classification and affinities	
3 September	Sunday	
Week 7 4 September – 9 September	Type study Cyclostomata “ Petromyzon”	
10 September	Sunday	
Week 11 11 September - 16 September	Chondrichthyes: characteristics, classification and general survey	
17 September	Sunday	
Week 9 18 September- 23 September	Osteichthyes: characteristics, classification and general survey	
September 24	Sunday	
Week 10 25 September- 30 September	Type study Osteichthyes “ Labeo Rohita” and Pices in General	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1 October	Sunday	
Week 13 3 October- 7 October	Biochemistry: introduction and scope	
8 October	Sunday	
Week 14 9 October- 14 October	Proteins: Introduction, Classification, Structure and Function	
15 October	Sunday	
Week 15 16 October- 21 October	Carbohydrates: Introduction, Classification, Structure and Function	
22 October	Sunday	
Week 16 23 October- 28 October	Lipids: Introduction, Classification, Structure and Function	
29 October	Sunday	
Week 17 30 October- 4 November	Enzyme: Introduction, Nomenclature, Classification and Mechanism of action.	
5 November	Sunday	
Week 18 6 November- 9 November	Biophysics: Buffer system and Transport through Biomembrane	
10 November- 16 November	Deepawali vacation	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 19	Nutrition	
17 November - 25 November	Muscle Physiology	
26 November	Sunday	
Week 20	Bone disorders	
27 November - 6 December	Revision of syllabus	

B. Sc.Pass Course 6th sem Zoology Dr.Hariom

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1 st January 2024 to 16 th April 2024		ENTOMOLOGY (1-3)	DEVELOPMENTAL BIOLOGY (4-6)
1 st January – 15 th January Week 1	Practicals Slot		
16 January - 20 January	Introductory lecture on pest	Historical perspectives, aims and scope of developmental biology	
21 st January	SUNDAY		
Week 2 22 nd January – 27 th January	Sugarcane leaf-hopper (Pyrilla perpusilla) Sugarcane Whitefly (Aleurolobus barodensis) Sugarcane top borer (Sciropophaga nivella)	structure of mammalian ovum & sperm.	
28 th January	SUNDAY		
Week 3 29 th January - 03 th February	Sugarcane root borer (Emmalocera depresella) Gurdaspur borer (Bissetia steniellus) Life cycle and control of Pyrilla perpusilla	Spermatogenesis and Oogenesis.	
04 th February	SUNDAY		

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

<p>Week 4 05th February – 10th February</p>	<p>Pink bollworm (<i>Pectinophora gossypiella</i>) Red cotton bug (<i>Dysdercus Cingulatus</i>) Cotton grey weevil (<i>Myloccerus undecimpustulatus</i>) Cotton Jassid (<i>Amrasca devastans</i>)</p>	<p>Fertilization,</p>
<p>11th February</p>	<p>SUNDAY</p>	
<p>Week 5 12th February – 17th February</p>	<p>Life cycle and control of <i>Pectinophora gossypiella</i> Wheat stem borer (<i>Sesamia inferens</i>)</p>	<p>parthenogenesis,</p>
<p>18th February</p>	<p>SUNDAY</p>	
<p>Week 6 19th February – 24th February</p>	<p>Gundhi bug (<i>Leptocorisa acuta</i>) Rice grasshopper (<i>Hieroglyphus banian</i>) Rice stem borer (<i>Scirpophaga incertullus</i>) Rice Hispa (<i>Diceladisa armigera</i>)</p>	<p>different types of eggs and patterns of cleavage in invertebrates and vertebrates</p>
<p>25th February</p>	<p>SUNDAY</p>	
<p>Week 7 26th February – 02nd March</p>	<p>Life cycle and control of <i>Loptocorisa acuta</i> <i>Raphidopalpa faveicollis</i> – The Red pumpkin beetle. <i>Dacus cucurbitas</i> – The pumpkin fruit fly. <i>Tetranychus tecarius</i> – The vegetable mite <i>Epilachna</i> – The Hadda beetle</p>	<p>Process of blastulation in invertebrates and vertebrates</p>
<p>03th March</p>	<p>SUNDAY</p>	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

<p>Week 8 04th March–09th March</p>	<p>Pulse beetle (Callosobruchus maculatus) Rice weevil (Sitophilus oryzae) Wheat weevil (Trogoderma granarium) Rust Red Flour beetles (Tribolium castaneum) Lesser grain borer (Rhizopertha dominica) Grain & Flour moth (Sitotroga cerealella)</p>	<p>Fate-map construction in frog and chick Concept of regeneration</p>
<p>10th March</p>	<p>SUNDAY</p>	
<p>Week 9 11th March–16th March</p>	<p>BIOLOGICAL AND CHEMICAL CONTROL OF PEST</p>	<p>Gastrulation & formation of three germinal layers in frog and chick</p>
<p>17th March</p>	<p>SUNDAY</p>	
<p>Week 10 18th March– 22th March</p>	<p>Integrated pest management</p>	<p>Elementary knowledge of primary organizers.</p>
<p>24 March</p>	<p>SUNDAY. Week 11-12 23-31 March Holi Break</p>	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

31 Match	SUNDAY	
Week 13 01 st April – 06 th April	Important bird and rodent pests of agriculture & their management.	. Extra embryonic membranes: structure & significance in birds and mammals.
07 th April	SUNDAY	
Week 14 8 th April – 13 th April	Doubts solving	Concepts of competence, determination and differentiation
14 th April	SUNDAY	
Week 15 15 th April – 20 th April	Revision	Revision

Name of Teacher: Dr. Hariom

Class: BSc Medical 3rd sem, Section A

Week	Class (B.Sc. Pass Course II year)	
Week 1 26 July- 29 July	Introduction, origin, evolutionary tree and classification	
30 July	Sunday	
Week 2 31 July – 5 August	Urochordata: characteristics, classification and affinities	
6 August		
Week 3 7 August - 12 August	Type study of Urochordata “Hardmania”	
13 August	Sunday	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 4 14 August – 19 August	Cephalochordata: characteristics, classification and affinities	
20 August	Sunday	
Week 5 21 August- 26 August	Type study of cephalochordate “Amphioxux”	
27 August	Sunday	
Week 6 28 August – 2September	Cyclostomata: characteristics, classification and affinities	
3 September	Sunday	
Week 7 4 September – 9 September	Type study Cyclostomata “ Petromyzon”	
10 September	Sunday	
Week 11 11 September - 16 September	Chondrichthyes: characteristics, classification and general survey	
17 September	Sunday	
Week 9 18 September- 23 September	Osteichthyes: characteristics, classification and general survey	
September 24	Sunday	
Week 10	Type study Osteichthyes “ Labeo Rohita” and Pices in General	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

25 September- 30 September		
1 October	Sunday	
Week 13 3 October- 7 October	Biochemistry: introduction and scope	
8 October	Sunday	
Week 14 9 October- 14 October	Proteins: Introduction, Classification, Structure and Function	
15 October	Sunday	
Week 15 16 October- 21 October	Carbohydrates: Introduction, Classification, Structure and Function	
22 October	Sunday	
Week 16 23 October- 28 October	Lipids: Introduction, Classification, Structure and Function	
29 October	Sunday	
Week 17 30 October- 4 November	Enzyme: Introduction, Nomenclature, Classification and Mechanism of action.	
5 November	Sunday	
Week 18 6 November- 9 November	Biophysics: Buffer system and Transport through Biomembrane	

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

10 November- 16 November	Deepawali vacation	
Week 19	Nutrition	
17 November - 25 November	Muscle Physiology	
26 November	Sunday	
Week 20	Bone disorders	
27 November - 6 December	Revision of syllabus	

B. Sc.Pass Course 6thsem Zoology (Neeraj Devi)

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1 st January 2024 to 16 th April 2024		ENTOMOLOGY (1-3)	DEVELOPMENTAL BIOLOGY (4-6)
1 st January – 15 th January Week 1	Practicals Slot		
16 January - 20 January	Introductory lecture on pest	Historical perspectives, aims and scope of developmental biology	
21 st January	SUNDAY		
Week 2 22 nd January – 27 th January	Sugarcane leaf-hopper (Pyrillaperpusilla) Sugarcane Whitefly (Aleurolobusbarodensis) Sugarcane top borer (Sciropophaganivella)	structure of mammalian ovum & sperm.	
28 th January	SUNDAY		
Week 3 29 th January - 03 th February	Sugarcane root borer (Emmaloceradepresella) Gurdaspur borer (Bissetiasteniellus) Life cycle and control of Pyrrillaperpusilla	Spermatogenesis and Oogenesis.	
04 th February	SUNDAY		

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

<p>Week 4 05th February – 10th February</p>	<p>Pink bollworm (Pestiphora gossypiella)</p> <p>Red cotton bug (Dysdercus cingulatus) Cotton grey weevil (Mylokerus undecimpustulatus)</p> <p>Cotton Jassid (Amrasca devastans)</p>	<p>Fertilization,</p>
<p>11th February</p>	<p>SUNDAY</p>	
<p>Week 5 12th February – 17th February</p>	<p>Life cycle and control of Pectinophora gossypiella</p> <p>Wheat stem borer (Sitona inferens)</p>	<p>parthenogenesis,</p>
<p>18th February</p>	<p>SUNDAY</p>	
<p>Week 6 19th February – 24th February</p>	<p>Gundhi bug (Leptocorisa acuta)</p> <p>Rice grasshopper (Hieroglyphus banian)</p> <p>Rice stem borer (Scirpophaga incertulus) Rice Hispa (Diceladisa paarmigera)</p>	<p>different types of eggs and patterns of cleavage in invertebrates and vertebrates</p>
<p>25th February</p>	<p>SUNDAY</p>	
<p>Week 7 26th February – 02nd March</p>	<p>Life cycle and control of Leptocorisa acuta</p> <p>Raphidopalpafaveicollis – The Red pumpkin beetle.</p> <p>Dacus cucurbitas – The pumpkin fruit fly.</p> <p>Tetranychustecarius – The vegetable mite</p> <p>Epilachna – The Haddabeetl</p>	<p>Process of blastulation in invertebrates and vertebrates</p>

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

03th March	SUNDAY	
Week 8 04th March–09th March	Pulse beetle (Callosobruchus maculatus) Rice weevil (Sitophilus oryzae) Wheat weevil (Trogoderma granarium) Rust Red Flour beetles (Tribolium castaneum) Lesser grain borer (Rhizopertha dominica) Grain & Flour moth (Sitotrogacerealella)	Fate-map construction in frog and chick Concept of regeneration
10th March	SUNDAY	
Week 9 11th March–16th March	BIOLOGICAL AND CHEMICAL CONTROL OF PEST	Gastrulation & formation of three germinal layers in frog and chick
17th March	SUNDAY	
Week 10 18th March– 22th March	Integrated pest management	Elementary knowledge of primary organizers.

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

24 March	SUNDAY. Week 11-12	
	23-31 March Holi Break	
31 March	SUNDAY	
Week 13 01 st April – 06 th April	Important bird and rodent pests of agriculture & their management.	. Extra embryonic membranes: structure & significance in birds and mammals.
07 th April	SUNDAY	
Week 14 8 th April – 13 th April	Doubts solving	Concepts of competence, determination and differentiation
14 th April	SUNDAY	
Week 15 15 th April – 20 th April	Revision	Revision

Pt NRS Govt. College, Rohtak

Lesson Plan for Odd Semester: Session 2023- 2024

Dr. Neeraj Devi , Department of Zoology

Class: B.Sc. Medical 3rd year 5th Semester Section: A

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

26 July-6 December 2023	
Week 1	Introduction to world fisheries:
26 July - 29 July	Production, utilisation and demand
30 July	SUNDAY
Week 2	Fresh water fishes of India:
31 July – 5 August	River System Reservoir, Pond, Tank fisheries, Captive and Culture Fisheries Cold water fisheries
6 August	SUNDAY
Week 3	Fishing Craft
7 August - 12 August	Fishing Gears
13 August	SUNDAY
Week 4	Fin fishes, Crustaceans, Molluscs and their culture
14 August – 19 August	
20 August	SUNDAY
Week 5	Fish Seed Production:
21 August- 26 August	Natural seed resources, its assessment, collection, Hatchery Production
27 August	SUNDAY
Week 6	Nutrition: Source of Food (Natural and Artificial)
28 August – 2 September	fish feed composition (Calories and Chemical ingredients)

Summary of Lesson Plan of College Faculty

Name of College: **Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even**

Section: **A**

Name of Extension Lecturer. – **Dr. Amit Dev**

Class: **B.Sc. Medical. 4th Sem.**

Name of Subject: **Zoology**

3 September	SUNDAY
Week 7	Field culture:
4 September – 9 September	Ponds - Running water, Recycled Water, case culture and Poly culture
10 September	SUNDAY
Week 11 September 16 September	Culture Technology: Biotechnology, Gene manipulation and cryopreservation of Gamets
17 September	SUNDAY
Week 9	Ecology:
18 September- 23 September	Basic concepts of Ecology, Definition, significance. concept of Habitat and Exolcological Niche
September 24	SUNDAY
Week 10	Factors Affecting Environment:
25 September- 30 September	Abiotic Factors, Light, Temperature, Humidity, Topography, Edaphic factor and Biotic factors
1 October	SUNDAY
Week 13	Ecosystem: Comcncept, components, properties and Functions
3 October- 7 October	Exolcological energetic and energy flow food chain and food web Trophic striucture, Exolcological Pyramids
8 October	SUNDAY
Week 14	Concept of Productivity
9 October- 14 October	Biogeochemical cuycle: reservoir pool, Gaseous cycle and sedimentary cycle Population Growth Curve

Summary of Lesson Plan of College Faculty

Name of College: **Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even**

Section: **A**

Name of Extension Lecturer. – **Dr. Amit Dev**

Class: **B.Sc. Medical. 4th Sem.**

Name of Subject: **Zoology**

15 October	SUNDAY
Week 15	Origin of Life:
16 October- 21 October	Concept and Evidences of evolution
22 October	SUNDAY
Week 16	Theories of Organic Evolution
23 October- 28 October	
29 October	SUNDAY
Week 17	Concept of Micro evolution
30 October- 4 November	comnccept of macro evolution comcnccept of Mega evolution
5 November	SUNDAY
Week 18	Convecept of Species
6 November- 9 November	
10 November- 16	Diwali Vacation
Week 19	Phylogeny of Horse
17 November - 25 November	Evolution of Man
26 November	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Phy-205 Chemistry-II

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1 st January – 15 ^h January	Practical Slot
Week 1 16 January - 20 January	Overview of syllabus, General Reactions Introduction
21 st January	SUNDAY
Week 2 22 nd January – 27 th January	Chapter: Phylum Annelida Type Study – <i>Phertima</i>
28 th January	SUNDAY
Week 3 29 th January - 03 th February	Metamerism in Annelida General characters and classification of phylum Annelida Biodiversity and economic importance of Annelida Trochopore Larva
04 th February	SUNDAY
Week 4 05 th February 10 th February	Phylum Arthropoda Type Study- <i>Periplanta americana</i>
11 th February	SUNDAY
Week 5 12 th February – 17 th February	Phylum Arthropoda Type Study- <i>Periplanta americana</i> Economic importance of insects General characters and classification up to order level
18 th February	SUNDAY
Week 6 19 th February – 24 th February	Phylum Mollusca Type study- <i>Pila</i> Torsion and detorsion in gastropods General characters and classification up to order level Biodiversity : Phylum Mollusca
25 th February	SUNDAY
Week 7 26 th February–02 nd March	Economic Importance- : Phylum Mollusca Respiration and foot
03 th March	SUNDAY
Week 8 04 th March–09 th	Phylum Echinodermata Type Study-Sea Star
10 th March	SUNDAY
Week 9 11 th March–16 th March	Type Study-Sea Star Echinoderm larvae Biodiversity - Phylum Echinodermata Aristotle's Lantern.
17 th March	SUNDAY
Week 10 18 th March– 22 th March	Type Study- Balanoglossus Phylum-Hemi-chordata
24 March	SUNDAY Week 11 23-31 March Holi Break

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 12 01 st April – 06 th April	Elements of heredity and variations The varieties of gene interactions
07 th April	SUNDAY
Week 13 8 th April – 13 th April	Linkage and recombination, Sex determination and its mechanism, Sex linked inheritance, Extra chromosomal and cytoplasmic inheritance, Multiple allelism, Human genetics, inborn errors of metabolism
14 th April	SUNDAY
Week 14 15 th April – 20 th April	Nature and function of genetic material, Eugenics, Euthenics and Euphenics, Mutations Structural Chromosomal aberrations Numerical aberrations
21 st April	SUNDAY
Week 15 22 nd April – 27 April	Applied genetics
28 th April	SUNDAY
Week 16 29 th April-30 th April	Brief Section A, B, C, D Queries/ Doubts

Name of the Assistant/Associate Professor: Dr. Shelly , Dr. Ravina, Parveen Punia
Class and Section: B.Sc 1 , Sec A , Sec B, Sec C
Subject: Zoology
Paper: 1
JULY
Week 3
Chapter: Phylum Protozoa
Assignments: 1. Plasmodium life cycle 2. Parasitic protozoans
Topics to be covered: 1. General characteristics of protozoans 2. Classification 3. Biodiversity 4. Economic importance
Week 4
Chapter: Phylum Protozoa
Topics to be covered: 1. Plasmodium introduction 2. Lifecycle 3. distribution

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

AUGUST

Week 1

Chapter: Phylum protozoa

Assignments: Economic importance of Plasmodium

Topics to be covered:

1. Life history of *Entamoeba*, *Trypanosoma*
2. Mode of infection
3. Pathogenicity

Week 2

Chapter: Phylum protozoa

Topics to be covered:

1. Life history of *Leishmania*, *Giardia*
2. Mode of infection
3. Pathogenicity

Week 3

Chapter Phylum Porifera

Assignments: 1. Spicules of sponges
2. canal system in sponges

Topics to be covered:

1. General characters
2. Classification upto order level
3. Biodiversity and economic importance

Week 4

Chapter: phylum porifera

Topics to be covered: 1.Type study of sycon
2. Canal system in sponges

SEPTEMBER

Week 1

Chapter: Phylum porifera and coelenterata

Assignments: polymrphism in siphonophores

Topics to be covered:

1. Spicules in sponges

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

2. General characters of coelenterate
3. Biodiversity and economic importance

Week 2

Chapter: Phylum coelenterata

Topics to be covered:

1. Type study obelia
2. Coral and coral reefs

Week 3

Chapter: Phylum coelenterate and helminthes

Assignments: Pathogenecity of *Schistoma*

Topics to be covered:

1. Polymorphism in siphonophores
2. General characters and classification of helminthes

Week 4

Chapter: Phylum helminthes

Topics to be covered:

- Type study sheep liver fluke
Helminthes parasites: life history , mode of infection, pathogenecity

Name of the Assistant/Associate Professor: Devender

Class and Section: B.Sc 1 , Sec A

Subject: Zoology

Paper: 2

OCTOBER

Week 2

Chapter: Plasma membrane

Topics to be covered:

1. Various modes of transport across plasma membrane
2. Endocytosis
3. exocytosis

Week 3

Chapter: Endoplasmic reticulum

Assignments: 1. Types of endoplasmic reticulum

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Topics to be covered: Types of ER
Role of ER in protein synthesis
Transportation in animal cell

Week 4

Chapter Golgi apparatus

Topics to be covered:

1. structure of golgi complex
2. Associated enzymes
3. Role of golgi

NOVEMBER

Week 1

Chapter: ribosomes

Assignments: cilia and flagella

Topics to be covered:

Types, biogenesis of ribosomes
Role in protein synthesis

Week 2

Chapter: mitochondria

Topics to be covered: Mitochondrial DNA

Biogenesis
Mitochondrial enzymes

Week 3

Chapter: Lysosome

Topics to be covered: Structure of lysosome

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Lysosomal enzymes

Week 4

Chapter: Microtubules and microfilaments

Topics to be covered:

Microtubules

Microfiaments

Centrioles

Basal body

Cilia

Flagella

DECEMBER

Week 1

Paper 1 and Paper 2

Topics to be covered: Cell Cycle

Revision of selected topics from paper 1 and paper 2

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1 st January – 15 ^h January	Practical Slot
Week 1 16 January - 20 January	Overview of syllabus, General Reactions Introduction
21 st January	SUNDAY
Week 2 22 nd January – 27 th January	Chapter: Phylum Annelida Type Study – <i>Phertima</i>
28 th January	SUNDAY
Week 3 29 th January - 03 th February	Metamerism in Annelida General characters and classification of phylum Annelida Biodiversity and economic importance of Annelida Trochopore Larva
04 th February	SUNDAY
Week 4 05 th February 10 th February	Phylum Arthropoda Type Study- <i>Periplanta americana</i>
11 th February	SUNDAY
Week 5 12 th February – 17 th February	Phylum Arthropoda Type Study- <i>Periplanta americana</i> Economic importance of insects General characters and classification up to order level
18 th February	SUNDAY
Week 6 19 th February – 24 th February	Phylum Mollusca Type study- <i>Pila</i> Torsion and detorsion in gastropods General characters and classification up to order level Biodiversity : Phylum Mollusca
25 th February	SUNDAY
Week 7 26 th February–02 nd March	Economic Importance- : Phylum Mollusca Respiration and foot
03 th March	SUNDAY
Week 8 04 th March–09 th	Phylum Echinodermata Type Study-Sea Star
10 th March	SUNDAY
Week 9 11 th March–16 th March	Type Study-Sea Star Echinoderm larvae Biodiversity - Phylum Echinodermata Aristotle's Lantern.
17 th March	SUNDAY
Week 10 18 th March– 22 th March	Type Study- Balanoglossus Phylum-Hemi-chordata
24 March	SUNDAY Week 11 23-31 March Holi Break

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 12 01 st April – 06 th April	Elements of heredity and variations The varieties of gene interactions
07 th April	SUNDAY
Week 13 08 th April – 13 th April	Linkage and recombination, Sex determination and its mechanism, Sex linked inheritance, Extra chromosomal and cytoplasmic inheritance, Multiple allelism, Human genetics, inborn errors of metabolism
14 th April	SUNDAY
Week 14 15 th April – 20 th April	Nature and function of genetic material, Eugenics, Euthenics and Euphenics, Mutations Structural Chromosomal aberrations Numerical aberrations
21 st April	SUNDAY
Week 15 22 nd April – 27 April	Applied genetics
28 th April	SUNDAY
Week 16 29 th April-30 th April	Brief Section A, B, C, D Queries/ Doubts

Name of the Assistant/Associate Professor: Dr. Shelly , Dr. Ravina, Parveen Punia
Class and Section: B.Sc 1 , Sec A , Sec B, Sec C
Subject: Zoology
Paper: 1
JULY
Week 3
Chapter: Phylum Protozoa
Assignments: 1. Plasmodium life cycle 2. Parasitic protozoans
Topics to be covered: 5. General characteristics of protozoans 6. Classification 7. Biodiversity 8. Economic importance
Week 4
Chapter: Phylum Protozoa
Topics to be covered: 1. Plasmodium introduction 2. Lifecycle 3. distribution

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

AUGUST

Week 1

Chapter: Phylum protozoa

Assignments: Economic importance of Plasmodium

Topics to be covered:

4. Life history of *Entamoeba*, *Trypanosoma*
5. Mode of infection
6. Pathogenicity

Week 2

Chapter: Phylum protozoa

Topics to be covered:

4. Life history of *Leishmania*, *Giardia*
5. Mode of infection
6. Pathogenicity

Week 3

Chapter Phylum Porifera

Assignments: 1. Spicules of sponges
2. canal system in sponges

Topics to be covered:

4. General characters
5. Classification upto order level
6. Biodiversity and economic importance

Week 4

Chapter: phylum porifera

Topics to be covered: 1.Type study of sycon
2. Canal system in sponges

SEPTEMBER

Week 1

Chapter: Phylum porifera and coelenterata

Assignments: polymrphism in siphonophores

Topics to be covered:

4. Spicules in sponges

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

5. General characters of coelenterate
6. Biodiversity and economic importance

Week 2

Chapter: Phylum coelenterata

Topics to be covered:

3. Type study obelia
4. Coral and coral reefs

Week 3

Chapter: Phylum coelenterate and helminthes

Assignments: Pathogenecity of *Schistoma*

Topics to be covered:

3. Polymorphism in siphonophores
4. General characters and classification of helminthes

Week 4

Chapter: Phylum helminthes

Topics to be covered:

- Type study sheep liver fluke
Helminthes parasites: life history , mode of infection, pathogenecity

Name of the Assistant/Associate Professor: Devender

Class and Section: B.Sc 1 , Sec A

Subject: Zoology

Paper: 2

OCTOBER

Week 2

Chapter: Plasma membrane

Topics to be covered:

4. Various modes of transport across plasma membrane
5. Endocytosis
6. exocytosis

Week 3

Chapter: Endoplasmic reticulum

Assignments: 1. Types of endoplasmic reticulum

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Topics to be covered: Types of ER
Role of ER in protein synthesis
Transportation in animal cell

Week 4

Chapter Golgi apparatus

Topics to be covered:

4. structure of golgi complex
5. Associated enzymes
6. Role of golgi

NOVEMBER

Week 1

Chapter: ribosomes

Assignments: cilia and flagella

Topics to be covered:

Types, biogenesis of ribosomes
Role in protein synthesis

Week 2

Chapter: mitochondria

Topics to be covered: Mitochondrial DNA

Biogenesis
Mitochondrial enzymes

Week 3

Chapter: Lysosome

Topics to be covered: Structure of lysosome

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Lysosomal enzymes

Week 4

Chapter: Microtubules and microfilaments

Topics to be covered:

Microtubules

Microfiaments

Centrioles

Basal body

Cilia

Flagella

DECEMBER

Week 1

Paper 1 and Paper 2

Topics to be covered: Cell Cycle

Revision of selected topics from paper 1 and paper 2

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

1 st January – 15 ^h January	Practical Slot
Week 1 16 January - 20 January	Overview of syllabus, General Reactions Introduction
21 st January	SUNDAY
Week 2 22 nd January – 27 th January	Chapter: Phylum Annelida Type Study – <i>Phertima</i>
28 th January	SUNDAY
Week 3 29 th January - 03 th February	Metamerism in Annelida General characters and classification of phylum Annelida Biodiversity and economic importance of Annelida Trochopore Larva
04 th February	SUNDAY
Week 4 05 th February 10 th February	Phylum Arthropoda Type Study- <i>Periplanta americana</i>
11 th February	SUNDAY
Week 5 12 th February – 17 th February	Phylum Arthropoda Type Study- <i>Periplanta americana</i> Economic importance of insects General characters and classification up to order level
18 th February	SUNDAY
Week 6 19 th February – 24 th February	Phylum Mollusca Type study- <i>Pila</i> Torsion and detorsion in gastropods General characters and classification up to order level Biodiversity : Phylum Mollusca
25 th February	SUNDAY
Week 7 26 th February–02 nd March	Economic Importance- : Phylum Mollusca Respiration and foot
03 th March	SUNDAY
Week 8 04 th March–09 th	Phylum Echinodermata Type Study-Sea Star
10 th March	SUNDAY
Week 9 11 th March–16 th March	Type Study-Sea Star Echinoderm larvae Biodiversity - Phylum Echinodermata Aristotle's Lantern.
17 th March	SUNDAY
Week 10 18 th March– 22 th March	Type Study- Balanoglossus Phylum-Hemi-chordata
24 March	SUNDAY Week 11 23-31 March Holi Break

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 12 01 st April – 06 th April	Elements of heredity and variations The varieties of gene interactions
07 th April	SUNDAY
Week 13 8 th April – 13 th April	Linkage and recombination, Sex determination and its mechanism, Sex linked inheritance, Extra chromosomal and cytoplasmic inheritance, Multiple allelism, Human genetics, inborn errors of metabolism
14 th April	SUNDAY
Week 14 15 th April – 20 th April	Nature and function of genetic material, Eugenics, Euthenics and Euphenics, Mutations Structural Chromosomal aberrations Numerical aberrations
21 st April	SUNDAY
Week 15 22 nd April – 27 April	Applied genetics
28 th April	SUNDAY
Week 16 29 th April-30 th April	Brief Section A, B, C, D Queries/ Doubts

Name of the Assistant/Associate Professor: Dr. Shelly , Dr. Ravina, Parveen Punia
Class and Section: B.Sc 1 , Sec A , Sec B, Sec C
Subject: Zoology
Paper: 1
JULY
Week 3
Chapter: Phylum Protozoa
Assignments: 1. Plasmodium life cycle 2. Parasitic protozoans
Topics to be covered: 9. General characteristics of protozoans 10. Classification 11. Biodiversity 12. Economic importance
Week 4
Chapter: Phylum Protozoa
Topics to be covered: 1. Plasmodium introduction 2. Lifecycle 3. distribution

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

AUGUST

Week 1

Chapter: Phylum protozoa

Assignments: Economic importance of Plasmodium

Topics to be covered:

7. Life history of *Entamoeba*, *Trypanosoma*
8. Mode of infection
9. Pathogenicity

Week 2

Chapter: Phylum protozoa

Topics to be covered:

7. Life history of *Leishmania*, *Giardia*
8. Mode of infection
9. Pathogenicity

Week 3

Chapter Phylum Porifera

Assignments: 1. Spicules of sponges
2. canal system in sponges

Topics to be covered:

7. General characters
8. Classification upto order level
9. Biodiversity and economic importance

Week 4

Chapter: phylum porifera

Topics to be covered: 1.Type study of sycon
2. Canal system in sponges

SEPTEMBER

Week 1

Chapter: Phylum porifera and coelenterata

Assignments: polymrphism in siphonophores

Topics to be covered:

7. Spicules in sponges

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

- 8. General characters of coelenterate
- 9. Biodiversity and economic importance

Week 2
Chapter: Phylum coelenterata

- Topics to be covered:**
- 5. Type study obelia
 - 6. Coral and coral reefs

Week 3
Chapter: Phylum coelenterate and helminthes

Assignments: Pathogenecity of *Schistoma*

- Topics to be covered:**
- 5. Polymorphism in siphonophores
 - 6. General characters and classification of helminthes

Week 4
Chapter: Phylum helminthes

- Topics to be covered:**
- Type study sheep liver fluke
 - Helminthes parasites: life history , mode of infection, pathogenecity

Name of the Assistant/Associate Professor: Devender

Class and Section: B.Sc 1 , Sec A

Subject: Zoology

Paper: 2

OCTOBER

Week 2
Chapter: Plasma membrane

- Topics to be covered:**
- 7. Various modes of transport across plasma membrane
 - 8. Endocytosis
 - 9. exocytosis

Week 3
Chapter: Endoplasmic reticulum

Assignments: 1. Types of endoplasmic reticulum

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Topics to be covered: Types of ER
Role of ER in protein synthesis
Transportation in animal cell

Week 4

Chapter Golgi apparatus

Topics to be covered:

7. structure of golgi complex
8. Associated enzymes
9. Role of golgi

NOVEMBER

Week 1

Chapter: ribosomes

Assignments: cilia and flagella

Topics to be covered:

Types, biogenesis of ribosomes
Role in protein synthesis

Week 2

Chapter: mitochondria

Topics to be covered: Mitochondrial DNA

Biogenesis
Mitochondrial enzymes

Week 3

Chapter: Lysosome

Topics to be covered: Structure of lysosome

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Lysosomal enzymes

Week 4

Chapter: Microtubules and microfilaments

Topics to be covered:

Microtubules

Microfiaments

Centrioles

Basal body

Cilia

Flagella

DECEMBER

Week 1

Paper 1 and Paper 2

Topics to be covered: Cell Cycle

Revision of selected topics from paper 1 and paper 2

Lesson Plan for Even Semester: Session 2023- 2024

Mrs Sunita, Department of Zoology

Class: B.Sc. Chem H 1st year 2nd semester

Summary of Lesson Plan of College Faculty

Name of College: **Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even**

Section: **A**

Name of Extension Lecturer. – **Dr. Amit Dev**

Class: **B.Sc. Medical. 4th Sem.**

Name of Subject: **Zoology**

16 January 2024 to 20th April 2024	
23 March – 31st March	Holi break
Week 13 01st April – 06th April	Flight adaption in birds
07th April	SUNDAY
Week 14 8th April – 13th April	Evolution of humans
14th April	SUNDAY
Week 15 15th April – 20th April	Revision

Pt NRS Govt. College, Rohtak

Lesson Plan for Odd Semester: Session 2023- 2024

Sunita, Department of Zoology

Class: B.Sc. Chem H Medical 1st year 1st Semester

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

26 July-6 December 2023	
Week 1 26 July - 29 July	Protozoa General characters and Reproduction in Protozoa
30 July	SUNDAY
Week 2 31 July – 5 August	Protozoa General characters and Reproduction in Protozoa
6 August	SUNDAY
Week 3 7 August - 12 August	Metazoa Origin of metazoa,
13 August	SUNDAY
Week 4 14 August – 19 August	Porifera General characters and Structural organization of Sycon.
20 August	SUNDAY
Week 5 21 August- 26 August	Cnidaria General characters and Polymorphism in Cnidarians
27 August	SUNDAY
Week 6 28 August – 2 September	Cnidaria Polymorphism in Cnidarians
3 September	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 7 4 September – 9 September	Platyhelminthes General characters and Fasciola: Structure and life history
10 September	SUNDAY
Week 11 11 September - 16 September	Aschelminthes General characters and Life history of Ascaris and its parasitic adaptations
17 September	SUNDAY
Week 9 18 September- 23 September	Aschelminthes General characters and Life history of Ascaris and its parasitic adaptations
September 24	SUNDAY
Week 10 25 September- 30 September	Annelida General characters and Adaptive radiations in Polychaeta
1 October	SUNDAY
Week 13 3 October- 7 October	Annelida General characters and Adaptive radiations in Polychaeta
8 October	SUNDAY
Week 14 9 October- 14 October	Arthropoda General characters and Larval forms of crustacea; metamorphosis in Insecta
15 October	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 15 16 October- 21 October	Mollusca General characters and Torsion and detorsion
22 October	SUNDAY
Week 16 23 October- 28 October	Mollusca General characters and Torsion and detorsion
29 October	SUNDAY
Week 17 30 October- 4 November	Echinodermata General characters and Water-vascular system
5 November	SUNDAY
Week 18 6 November- 9 November	Echinodermata Water-vascular system and larval forms
10 November- 16	Diwali Vacation
Week 19 17 November - 25 November	Echinodermata larval forms
26 November	SUNDAY
Week 20 27 November - 6 December	Revision and Doubts

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Pt NRS Govt. College, Rohtak

Lesson Plan for Even Semester: Session 2023-24

Tilak Raj Department of Zoology

Class: B.Sc. Chem. Hons 4th Semester

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

16 January 2024 to 20th April 2024	
1 st January to 15 th January- Practical examination of odd semester	
Week 1 16 January - 20 January	Introduction to Human genome
21 st January	SUNDAY
Week 2 22 rd January – 27 th January	Method used for human genome sequence
28 th January	SUNDAY
Week 3 29 th January - 03 th February	Mitochondria genome
04 th February	SUNDAY
Week 4 05 th February 10 th February	Introduction to genes and gene concept
11 th February	SUNDAY
Week 5 12 th February – 17 th February	Introduction to gene mapping
18 th February	SUNDAY
Week 6 19 th February – 24 th February	Different types of gene mapping
25 th February	SUNDAY
Week 7 26 th February–02 nd March	Elementary idea of gene mapping in bacteria
03 th March	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 8 04 th March–09 th March	Transposition mechanisms
10 th March	SUNDAY
Week 9 11 th March–16 th March	Types of mutations and nomenclature
17 th March	SUNDAY
Week 10 18 th March– 22 th March	Types of DNA repair
23 March – 31 st March	Holi break
Week 13 01 st April – 06 th April	DNA repair pathways Error-prone repair and mutagenesis
07 th April	SUNDAY
Week 14 8 th April – 13 th April	Gene families: Multi-gene families with conserved domains
14 th April	SUNDAY
Week 15 15 th April – 20 th April	Repetitive DNA Over view eukaryotic genomes
21 st April	SUNDAY

Pt NRS Govt. College, Rohtak

Lesson Plan for Odd Semester: Session 2023- 2024

Dr. Tilak Raj, Department of Zoology

Class: B.Sc. Chem H Medical 2nd year 3rd Semester

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

26 July-20 November 2023

Week 1 26 July - 29 July	Introduction to Endocrine System
30 July	SUNDAY
Week 2 31 July - 5 August	Histology and functions of endocrine glands;
6 August	SUNDAY
Week 3 7 August - 12 August	Nature of hormones; Mode of action of hormones
13 August	SUNDAY
Week 4 14 August - 19 August	Hypothalamus- principal nuclei involved in the control of the endocrine system
20 August	SUNDAY
Week 5 21 August- 26 August	Control of anterior pituitary hormones by hypothalamic-releasing hormones
27 August	SUNDAY
Week 6 28 August - 2 September	Histology of different types of muscle, Ultrastructure of skeletal muscle
3 September	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 7 4 September – 9 September	Molecular and chemical basis of muscle contraction, Characteristics of muscle twitch; Motor unit
10 September	SUNDAY
Week 11 11 September - 16 September	General organization of nervous system, Neuron resting membrane potential and its basis;
17 September	SUNDAY
Week 9 18 September- 23 September	Origin of action potential and its propagation in myelinated and unmyelinated nerve fibers;
September 24	SUNDAY
Week 10 25 September- 30 September	Synaptic transmission and types of synapses,
1 October	SUNDAY
Week 13 3 October- 7 October	Neuro-muscular junction; Physiology of hearing and vision.
8 October	SUNDAY
Week 14 9 October- 14 October	Structure and types of mode of the digestive system and its glands
15 October	SUNDAY

Summary of Lesson Plan of College Faculty

Name of College: Pt. Neki Ram Sharma Government College, Rohtak Academic Session 2023-2024 Semester: Even

Section: A

Name of Extension Lecturer. – Dr. Amit Dev

Class: B.Sc. Medical. 4th Sem.

Name of Subject: Zoology

Week 15 16 October- 21 October	Process of digestion, assimilation and various disorders.
22 October	SUNDAY
Week 16 23 October- 28 October	Structure and functions of the respiratory system; Control and coordination of respiration.
29 October	SUNDAY
Week 17 30 October- 4 November	Histology of male and female reproductive systems, puberty
5 November	SUNDAY
Week 18 6 November- 9 November	Physiology of male and female reproduction; Methods of contraception
10 November- 16	Diwali Vacation
Week 19 17 November - 20 November	Disorders of the reproductive system