LESSON PLAN

NAME OF EXTENSION LECTURER: Dr. JYOTI CLASS: B.Sc. (Life Science)

SUBJECT: ZOOLOGY (SEC) SEMESTER: 2ND

PAPER: (24ZOO402SE01) **Pest management**

UNIT	MONTH	SUBJECT MATTER / SYLLABUS
1	JANUARY	Study of important insect pests of crops and vegetables: Sugarcane: (With their systematic position, habits and nature of damage caused.(a) Sugarcane leaf-hopper (Pyrilla perpusilla) (b) Sugarcane Whitefly (Aleurolobus barodensis) (c) Sugarcane top borer (Scieropophaga nivella) (d) Sugarcane root borer (Emmalocera depresella) (e) Gurdaspur borer (Bissetia steniellus) Life cycle and control of Pyrilla perpusilla only. Cotton: (With their systematic position, habits and nature of damage caused. (a) Pink bollworm (Pestinophora gossypfolla) (b) Red cotton bug (Dysdercus cingulatus) (c) Cotton grey weevil (Myllocerus undecimpustulatus) (d) Cotton Jassid (Amrasca devastans) Life cycle and control of Pectinophore gossypiella
2	FEBRUARY	Wheat: Wheat stem borer (Sesamia inferens) with its systematics position, habits, nature of damage caused. Life cycle and control methods. Paddy: (With their systematic position, habits and nature of damage caused) (a) Gundhi bug (Leptocorisa acuta) (b) Rice grasshopper (Hieroglyphus banian) (c) Rice stem borer (Scirpophaga incertullus) (d) Rice Hispa (Diceladispa armigera) Life cycle and control of Loptocorisa acuta only. (a) Pink bollworm (Pestinophora gossypfolla)

		(b) Red cotton bug (Dysdercus cingulatus) (c) Cotton grey weevil (Myllocerus undecimpustulatus) (d) Cotton Jassid (Amrasca devastans) Life cycle and control of Pectinophore gossypiella
3	MARCH	Vegetables: (Their systematics position, habits and nature of damage caused. (a) Aulacophora faveicollis – The Red pumpkin beetle. (b) Dacus cucurbitas – The pumpkin fruit fly. (c) Tetranychus tecarius – The vegetable mite. (d) Epilachna – The Hadda beetle Life cycle and control of Aulacophora faveicollis Stored grains: (Their systematic position, habits and nature of damage caused. (a) Pulse beetle (Callosobruchus maculatus) (b) Rice weevil (Sitophilus oryzae) (c) Wheat weevil (Trogoderma granarium) (d) Rust Red Flour beetles (Tribolium castaneum) (e) Lesser grain borer (Rhizopertha dominica) (f) Grain & Flour moth (Sitotroga cerealella) Life cycle and control of Trogoderma granarium)
4	APRIL/MAY	Important bird and rodent pests of agriculture & their management. Pest control: Biological control, its history, requirement and precautions and feasibility of biological agents for control. Chemical control: History, Categories of pesticides, important pesticides from each category to pests against which they can be used, insect repellents and attractants. Integrated pest management

SIGNATURE Jyoti

HOD
Dept. of Zoology

LESSON PLAN

NAME OF EXTENSION LECTURER: Dr. JYOTI

CLASS: B.Sc. (Life Science)

SUBJECT: ZOOLOGY(DSC)

SEMESTER: 4th

PAPER: (**25ZOOM404DS01) Biomolecules and Mammalian Physiology**

UNIT	MONTH	SUBJECT MATTER / SYLLABUS
1	JANUARY	Introduction, classification, function and general structure and properties of Proteins, carbohydrates and lipids. Nomenclature, classification and mechanism of enzyme action. Inhibition of enzyme action, cofactors.
2	FEBRUARY	**Nutrition :** Digestion and absorption of Carbohydrates, Proteins, Fats. Vitamins. **Circulation:** Origin, conduction and regulation of heart beat, cardiac cycle, electrocardiogram, cardiac output, Composition and functions of blood & lymph; Mechanism of coagulation of blood, haemopoiesis
3	MARCH	**Respiration:** Exchange of respiratory gases, transport of gases, lung air volumes, oxygen dissociation curve of haemoglobin, Bohr's effect, Hamburger's phenomenon (Chloride shift), control / regulation of respiration. **Excretion:** Patterns of excretory products viz. Ammoniotelic, ureotelic uricotelic, ornithine cycle (Kreb's– Henseleit cycle) for urea formation in liver. Urine formation, counter-current mechanism of urine concentration.
4	APRIL/MAY	**Neural Integration:**Origin and propagation of nerve impulse along with medullated & non medullated nerve fibre, conduction of nerve impulse across synapse. **Chemical integration of Endocrinology:** Mechanism of hormone actionand physiology of hypothalamus, pituitary, thyroid, parathyroid, adrenal, pancreas and gonads.

Jyoti

Arvind
H.O.D.
Department of Zoology

LESSON PLAN

NAME OF EXTENSION LECTURER: Dr. JYOTI

CLASS: B.Sc. (Life Science)

SUBJECT: ZOOLOGY(MDC)

SEMESTER: 2ND

PAPER(24ZOOX01MD01) **Basics of Zoology-II**

UNIT	MONTH	SUBJECT MATTER / SYLLABUS
1	JANUARY	Basics of Chordates: Define and Salient features of chordates, Difference between non chordates and chordates. Characters of protochordates
2	FEBRUARY	Pisces (Fishes): Characteristic features of freshwater and marine fishes, Edible fishes of India, Composite fish culture. Class Amphibia: Features of amphibians, Parental care in amphibians, Role of amphibians in ecosystem, Identification of turtles and tortoise, Frog and Toad.
3	MARCH	Class Reptilia: Features of Reptiles, Common reptiles of India, Identification of Poisonous and non poisonous snakes, Difference between crocodile and Gharial
4	APRIL/MAY	Class Aves: Characteristic features of birds, Common birds of India, Flight adaptations in birds, Commercial uses of birds, Role of birds in agriculture. Class Mammals: Characters and economic importance of mammals

Jyoti
SIGNATURE

Arvind
HOD
Dept. of Zoology