M.G. Science Institute (Autonomous) B.Sc. (Hons.)Zoology

ZOE113T-Non-chordates Systematics & human digestive system physiology

Semester: I	Course Title:- Non-chordates Systematics & human digestive system physiology	Credit: 2
Course No.: 113T	Minor -1 (T)	Hours: 2/week

Course Outcomes: On successful completion of the course, the learner will be able to:

COs	Cognitive Abilities	Course Outcomes
CO 1	Remembering	Recall the concept of Zoology. Students will gain fundamental knowledge of animal Systematics.
CO 2	Understanding	On completion of the course students will be able to understand general taxonomic rules of animal classification. Students will be able to understand and classifying the invertebrate animals by applying taxonomic rules. This will help them to understand diversity also
CO 3	Applying	Students will be able to identify invertebrate animals. This is in demand for various integrated research projects
CO 4	Remembering and Applying	The identification of animals will help society to establish and maintaining their habitats. This is essential now a day to restore biodiversity and ecosystem.
CO 5	Creating	Understand the physiological processes involved in digestion, absorption, and nutrient assimilation.

CO-PO Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO 1	2								
CO 2	1			1					
CO 3		2		1				1	
CO 4			1	1					
CO 5	2					1			

Unit No.	Unit Contents	No. of Hours of Teaching
1	**Non-chordates Systematics** ▪ Introduction and scopes of Zoology ▪ Outline of taxonomic categories in hierarchical arrangement (from Kingdom to Species)	15

	▪ Difference between Chordates and Non-chordates ▪ Animal diversity (Nonchordates) – Systematics • Protozoa - General characters and classification up to class • Type study : Paramecium - Systematic position with salient features - External & internal structure (in brief) - Locomotion - Food & feeding mechanism - Osmoregulation - Reproduction: Binary fission and conjugation	
2	**Human digestive system physiology** ▪ Definition: Nutrition, Balance diet ▪ Anatomy - Overview of digestive system ▪ Histology of Liver, Stomach, Pancreas, Small Intestine ▪ Physiology - Digestion and absorption of following dietary components in mammals: Carbohydrates, Proteins, Lipids, Nucleic acids ▪ Dentition in Mammals - Definition - Differentiation (based on shape & according to attachment of teeth) - Succession of teeth, - Types of teeth (Incisors, Canine, Premolar, Molar) - Dental formula (Human, Horse, Dog)	15