

Lecture plan for M.F. Sc 2nd semester
Department of Fish Physiology and Biochemistry

Course: Crustacean Physiology

FPB 506 (1+1)

S1 No.	Lecture Topic	<i>No of lecture</i>
01.	Introduction to Crustacean Physiology: Classification and Physiological Adaptations	1
02.	Reproductive Physiology of Crustaceans	3
03.	Male and Female Reproductive Systems; Gonadal Development	1
04.	Neuroendocrine Glands and Their Functions in Reproduction	1
05.	Hormonal Regulation of Reproduction and Maturation	1
06.	Physiology of Moulting and Growth	1
07.	Moulting Cycle: Premolt, Ecdysis, Postmolt and Intermolt	1
08.	Hormonal Control of Moulting and Factors Affecting Growth	1
09.	Osmoregulatory Physiology of Crustaceans	1
10.	Ion Regulation and Haemolymph Homeostasis	1
11.	Excretory Physiology: Antennal (Green) Gland and Nitrogen Excretion	1
12.	Structure and Function of the Digestive System	2
13.	Hepatopancreas: Structure and Physiological Functions	1
14.	Chemoreception and Feeding Behaviour in Crustaceans	1
15.	Environmental Influences on Crustacean Physiology	1
Total No of lectures		18
Practical		
01.	Identification of External Morphology of Crustaceans	1
02.	Identification of Internal Organs of Crustaceans	1
03.	Identification of Male and Female Reproductive Organs	1
04.	Collection of Haemolymph from Crustaceans	1
05.	Preparation of smear from hemolymph	1
05.	Estimation of Ionic Concentration (Na ⁺ , K ⁺ and Cl ⁻) in Haemolymph	1

06.	Anatomy of the Digestive Tract	1
07.	Histology of the Hepatopancreas (Demonstration), intestine	1
Total No of Practical		8



Course Teacher: Dr Sarvendra Kumar