

Lecture Plan

Course Title: Marine Biology (1 + 1)

Course Teacher: Mr. Ashutosh Kumar Singh

Theory

Class	Topic
1	Introduction to Marine Biology: Scope, Importance and Marine Environment
2	Divisions of Marine Environment: Pelagic, Benthic, Euphotic and Aphotic Zones
3	Major Marine Organisms: Phytoplankton, Zooplankton and Seaweeds
4	Environmental Factors Affecting Marine Life
5	Ocean Productivity and Primary Production
6	Vertical Migration of Zooplankton
7	Phytoplankton–Zooplankton Relationship
8	Geographic and Seasonal Variations in Plankton Production
9	Marine Fisheries and Role of Plankton
10	Intertidal Ecology: Rocky Shores
11	Intertidal Ecology: Sandy Shores and Mud Flats
12	Estuaries: Formation, Classification and Characteristics
13	Estuaries: Physico-chemical Factors, Biota and Productivity
14	Indian Estuaries and Boring & Fouling Organisms
15	Nekton: Definition, Classification, Habitat and Adaptations
16	Bioluminescence and Indicator Species
17	Harmful Algal Blooms (Red Tides): Causes, Effects and Revision

Practical

Practical No.	Topics
I.	Measuring and sampling techniques used at sea
II.	Study of important groups of marine phytoplankton
III.	Study of important groups of marine zooplankton
IV.	Study on important groups of seaweeds.
V.	Quantitative analysis of phytoplankton using Sedgwick-Rafter cell
VI.	Preparation of formaldehyde solution for preservation of phytoplankton
VII.	Preparation of Lugol's solution for preservation of phytoplankton
VIII.	Study of common organism found in rocky shore.
IX.	Study of common organism found in Sandy shore.
X.	Study of common organism found in muddy shore.



(Signature of Course Instructor)