

PRACTICAL –V
DEVELOPMENTAL BIOLOGY AND MICROBIOLOGY

Semester	Subject Code	Category	Practical		Theory	Practical	Credits
			Hrs/ week	Total Hours/ Semester			
IV	21CPZO42	Core Practical-V	4	60	Nil	60	4

COURSE OBJECTIVES:

- To understand the developmental stages of frog.
- To analyse the C.S of heart ,kidney lens ,limb of chick and uterine cycles in rat.
- To observe and identification of microorganisms in pond water.
- To understand the bacterial staining methods and identification of parasitic protozoans.
- To analyse the preparation techniques of culture medium for bacterial growth.

DEVELOPMENTAL BIOLOGY

15 Hours

1. Different stages in development - frog (egg, cleavage, Blastula, Yolk plug stage 24,48,72 and 96 hr)
2. Slide showing C.S.of heart, kidney lens and limb of chick.
3. Slides showing the uterine cycles in a mammal (Rat).
4. Observation of regeneration potential in tadpole.

MICROBIOLOGY

45 Hours

1. Microscopic observation and identification of microorganisms in pond water.
2. Types of bacteriophage bacteria , fungi and algae from the prepared slides/photographs from the book.
3. Collection and Identification of fungus-Bread mould Coconut mould.
4. Identification of parasitic protozoans (e.g. Plasmodium, Entamoeba, Trypanosoma, Leishmania donovani)
5. Identification of bacteria –staining methods –Gram positive and Gram negative bacteria
6. Demonstration of
 - a. Isolation of single colonies streak plate and serial dilution.
 - b. Enumeration of microorganisms spread plate and pour plate methods.
 - c. Preparation techniques of culture medium for bacterial growth.

SYLLABUS DESIGNERS.

Dr D.Sasikala, Assistant Professor & HOD

Dr.V.Kiruthiga, Assistant Professor

Dr V.Rekha, Assistant Professor

DrA.Vinodhini, Assistant Professor

Dr.G.Vidhya, Assistant Professor

Dr. S. Vijayakumari, Assistant Professor