

SHRI R. K. PARIKH ARTS AND SCIENCE COLLEGE, PETLAD.

SYLLABUS FOR ADD-ON CERTIFICATE COURSE

(FOR STUDENTS OF SCIENCE FACULTY ONLY)

Course Title : **Basic study of blood constituents and their functions.**
Coordinator : Prof. B. D. Joshi
Department : Microbiology
Duration : 30 Hours (Theory: 20 Hours, Practical: 10 Hours)

Course Content

Theory:

- What is blood?
- Composition of blood.
- Blood constituents and their functions.
- Introduction to ABO and Rh blood group systems.
- Introduction to blood coagulation.
- Importance of blood transfusion and safety in blood transfusion.

Practical:

- Laboratory instructions and safety measures.
- Disposal of laboratory materials and wastes.
- Demonstration of blood collection by pricking method.
- Microscopic examination of blood cells: RBCs and WBCs.
- Determination of human blood groups: ABO and Rh
- Estimation of hemoglobin by Sahli's method.

Course outcomes:

After successful completion of the course the student will be able to:

- Understand the importance of blood and its constituents.
- Will acquire basic knowledge of blood cells and human blood groups and
- Will also realize importance of blood transfusion.

Suggested References Books:

1. Medical laboratory technology by K. L. Mukharjee.
2. Medical laboratory technology by Baker and Silverton.