

**GUJARAT  
UNIVERSITY**  
**Syllabus for Skill Enhancement Course**  
**First year B.Sc. (Basic/Hons)**  
**Semester I**  
**Effective from june2023**  
**SEC –BBB-116 Basics of Blood Banking**

### **Unit 1 Introduction to blood Bank**

Blood collection: Preparation of donor, Criteria for blood donation, Procedure of blood donation, Screening and collection of blood, Various methods of blood collection, Types of blood samples, Methods of collection in various age groups

Preservation of blood : Anticoagulants used in blood bank, Various anticoagulants used in haematology tests, Components of blood, Component separation and its storage, preservation and shelf life

### **Unit 2 Blood Bank Techniques**

Principals involved in Blood grouping, ABO system and the methods used, Factors influencing the results of blood grouping, Rh system,

Other blood grouping systems, Cross matching, Compatibility test, Knowledge about types of blood transfusion reactions,

Different methods of Haemoglobin estimation: Specific gravity method (Coppersulphate), Sahli's (Cyanmethemoglobin) method.

#### **References:**

1. Baker and Silverton's Introduction to Medical Laboratory Technology, Baker F J, Silverton R E, Pallister C J, 7<sup>th</sup> edition (1998), Butterworths-Heinemann, Oxford, UK
2. Medical Laboratory Technology, Mukherjee 4<sup>th</sup> edition (2022), McGraw-Hill Education.

#### **Practicals**

1. Blood Collection
2. Blood Grouping
3. Hb estimation by Specific gravity method
4. Hb estimation by Sahli's method
5. Cross matching on slide

Course specific outcomes

1. Students can learn basic Laboratory techniques.
2. Syllabus covers up basic knowledge of blood transfusion.