**PRACTICAL NO 3**

**STUDY OF ABO BLOOD GROUP SYSTEM**

**What is blood made up of?**

An adult human has about 4–6 liters of blood circulating in the body. Among other things, blood transports oxygen to various parts of the body. Blood consists of several types of cells floating around in fluid called plasma. The red blood cells contain hemoglobin, a protein that binds oxygen. Red blood cells transport oxygen to, and remove carbon dioxide from, the body tissues. The white blood cells fight infection. The platelets help the blood to clot, if you get a wound for example. The plasma contains salts and various kinds of proteins.

**ABO Blood groups**

* Group A: antigen A on RBC surface anti B in plasma
* Group B: Antigen B on RBC membrane Anti A in plasma
* Group AB: Antigen A and B on RBC membrane NO antibodies in plasma
* Group O: No A nor B antigen Both A and B Antibodies are there in Plasma

**Material**

* Anti-A and anti-B sera
* Applicator sticks
* Microscope slides
* Lancet
* Sterile cotton

**Procedure**

* Max antiserum
* Take a slide and label it (A and B)
* Prick a finger and place one drop of blood in each of the compartments A and B. These are clearly Labelle don the microscope slides provided.
* Quickly add a drop of anti-A and anti-B to compartments A and B respectively.
* Mix the “a” well with an applicator stick
* Mix the “B” well with an applicator stick
* Rotate typing slide for two minutes
* Examine the mixtures for signs of RBC agglutination or clump formation.
* Draw your slide reactions to show agglutination in each well by using the agglutination pictures.

**Observation:**

* If agglutination with anti-serum A, blood group A confirmed.
* If agglutination with anti-serum B, blood group B confirmed.
* If agglutination with anti-sera A & B, blood group AB confirmed.
* If no agglutination with anti-sera A & B, blood group O confirmed

