MAY GRUNWALD- GIEMSA STAINING

May-Grunwald-Giemsa staining method is used for morphological inspection and differential counting of blood cells. May-Grünwald staining combines the effect of acidic eosin and alkaline methylene blue. Giemsa staining makes effect of azure. This staining stains all cellular components. The pH is a very important factor in staining, so any change will lead to wrong staining reaction. The limits of the most suitable pH are between 6.5 and 6.8.

1. Stain the air dried blood smear specimen with May-Grünwald working solution for 5 min.
2. Wash with water.
3. Stain with Giemsa working solution for 15 min.
4. Wash with water.
5. Dry the slides in upright position at room temperature.
6. Mount the slides with a coverslip for storing.

Notes: dissolve 5 ml of Giemsa dye in 50 ml of distilled water.

Results:

1. methylene blue → stains blue the acidic components of the cell
2. eosin → stains orange-red the alkaline components of the cell
3. azure → stains red and purple the basic cellular components