Blood Parameter Analysis Report

Project Title: Blood Parameter Analysis using HORIBA ABX Micros ES 60

Date of Experiment: 5th April 2025

Institution: GLA University

Student Name: Saloni Bhardwaj

Course: BTech Biotechnology, 2nd Year

Overview:

This report presents the results of a blood test performed using the HORIBA ABX Micros ES 60, an automated hematology analyzer. The objective of the experiment was to measure and analyze several hematological parameters from a blood sample.

Parameters Measured and Their Values:

- WBC (White Blood Cells): 10.3 x10^9/L
- LYM% (Lymphocytes): 36.6%
- MON% (Monocytes): 5.4%
- GRA% (Granulocytes): 58.0%
- RBC (Red Blood Cells): 4.72 x10^12/L
- HGB (Hemoglobin): 13.1 g/dL
- HCT (Hematocrit): 39.5%
- MCV (Mean Corpuscular Volume): 83.7 fL
- MCH: 25.1 pg
- MCHC: 30.0 g/dL
- PLT (Platelets): 310 x10^9/L
- MPV (Mean Platelet Volume): 7.7 fL

- RDW-CV: 12.9%
- PDW: 17.7%

Interpretation:

The measured values fall within standard physiological ranges for a healthy individual. Some slight variations may be due to sample collection or equipment sensitivity. For instance, lymphocyte count is on the lower end, which may indicate mild immune stress or variability. All other values are considered normal.

Conclusion:

The experiment was successful in demonstrating how automated analyzers are used to perform quick and accurate Complete Blood Count (CBC) tests. This analysis enhances our understanding of clinical diagnostics and the role of technology in modern healthcare.

Skills Learned:

- Practical handling of hematology analyzers
- Interpretation of CBC reports
- Recording and analyzing medical lab data
- Scientific report writing