

Subject: hematology Lab

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Semester: MLT 2<sup>nd</sup>

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Explain the following.

Leukopenia

Lymphocytosis

Lymphopenia

Basophilia

Nutrophelia

Thrombocytosis

Thrombocytopenia

Polycythemia

Anemia

Leukemia

Reticulocytosis

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**MLT SEC A**

**SUB: HEMATOLOGY**

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## ANSWERS

### 1 = Leukopenia

Your blood is made up different types of blood cells, including white blood cells, or leukocytes. White blood cells are an important part of your immune system, helping your body to fight off diseases and infections. If you have too few white blood cells, you have a condition known as leukopenia.

### 2 = Lymphocytes

Lymphocytes are part of your immune system and work to fight off infections. Lymphocytosis is a higher-than-normal amount of lymphocytes, a subtype of white blood cells, in the body.

### 3 = lymphopenia

Lymphocytopenia, also referred to as lymphopenia, occurs when your lymphocyte count in your bloodstream is lower than normal. Severe or chronic low counts can indicate a possible infection or other significant illness and should be investigated by your doctor. Lymphocytes are a kind of white blood cell.

## **4 = Basophilia**

Basophilia is defined as an absolute peripheral blood basophil count exceeding  $200/\mu\text{L}$ . It may occur in a wide variety of infections or inflammatory and autoimmune conditions, such as tuberculosis, chickenpox, smallpox, influenza, ulcerative colitis, and rheumatoid arthritis.

## **5 = Neutrophilia**

Neutrophilia refers to an increase in the absolute number of neutrophils in the peripheral blood (ANC  $>7500/\mu\text{L}$  in adults). Since neutrophils account for the majority of the

circulating leukocytes (about 60%), in most instances, white blood cell (WBC) counts of over 11,000/ $\mu$ L

## **6 = Thrombocytopenia**

Thrombocytopenia (THROM-bo-si-to-PE-ne-ah) is a condition in which your blood has a lower than normal number of blood cell fragments called platelets (PLATE-lets). Platelets are made in your bone marrow along with other kinds of blood cells.

## **7 = Thrombocytosis**

Thrombocytosis (THROM-bo-si-TO-sis) are conditions in which your blood has a higher than normal number of platelets (PLATE-lets). Platelets are blood cell fragments. They're made in your bone marrow along with other kinds of blood cells.

## **8 = Polycythemia**

Polycythemia vera (pol-e-sy-THEE-me-uh VEER-uh) is a type of blood cancer. It causes your bone marrow to make too many red blood cells. These excess cells thicken your blood, slowing its flow, which may cause serious problems, such as blood clots.

## 9 = Anemia

Anemia is a condition in which you lack enough healthy red blood cells to carry adequate oxygen to your body's tissues. Having anemia can make you feel tired and weak. There are many forms of anemia, each with its own cause

## 10 = Leukemia

Leukemia is cancer of the body's blood-forming tissues, including the bone marrow and the lymphatic system. Many types of leukemia exist. Some forms of leukemia are more common in children. Other forms of leukemia occur

mostly in adults. Leukemia usually involves the white blood cells.

## 11 = Reticulocytes

Reticulocytes are immature red blood cells (RBCs). In the process of erythropoiesis (red blood cell formation), reticulocytes develop and mature in the bone marrow and then circulate for about a day in the blood stream before developing into mature red blood cells.

THE END

