Mid-Term Assignment

Course Title: hematology
Instructor: Adnan Ahmad

Section A

1. the most commonly ordered blood tests
    A. Urine RE
    B. T3
    C. T4
    D. Hmglb
    E. None of them
2. When a person has been diagnosed with a disease known to affect blood cells, a ___ will often be ordered on a regular basis to monitor their condition
    A. Urine RE
    B. T3
    C. T4
    D. Hmglb
    E. None of them
3. The cells that are part of the body's defense system against infections and cancer and also play a role in allergies and inflammation
    A. Neutrophils
    B. Lymphocytes
    C. Eosinophils
    D. Monocytes
    E. All of the above
4. Normal RBC range in:Male:
    A. 4.7 to 6.1 million cells p (cells/mcL)
    B. 4.2 to 5.4 million cells/mcL
    C. 6.7 to 6.1 million cells p (cells/mcL)
    D. 9.7 to 6.1 million cells p (cells/mcL)
5. Low platelet concentration is
    A. Thrombocytopenia
    B. Thrombocytosis
    C. Thrombocytopathy
    D. Leukopenia
6. Also known as myeloid tissue
    A. Red BM
    B. Yellow BM
    C. White BM
    D. Greenish fatty tissue
7. All red blood cells and platelets in humans adults are formed in_____
    A. Yellow BM
    B. White BM
    C. Greenish fatty tissue
    D. Myeloid tissue
8. Increase in red blood cells
    A. Anemia
    B. Polycythemia
    C. leukemia
    D. Clotting defects
9. Thrombopoietin is a glycoprotein hormone produced mainly by___
    A. Liver
    B. Kidney
    C. Both a and b
    D. Brain

10. life span of RBCs is_____

A. 2 months

B. 3 months

C. 6 months

D. None of them

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Semester 2nd (Section B)

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Section A

1. **D**
2. **D**
3. **C**
4. **B**
5. **A**
6. **A**
7. **D**
8. **A**
9. **C**
10. **D**

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Section B

Q No.1: Characteristics of Blood

Ans: *Blood is a fluid that transport oxygen and nutrients to the cell.*

- *Blood carries away carbon dioxide from cell.*
- *Heart pump the blood to verious part of the body through pulmonary vein and deoxigenated from the body back to the heart.*
- *Blood is both a tissue and a fluid.*
- *Blood provide immunity to the body and protect the body from disease.*
- *Blood also have hemoglobin which give colour to the blood.*
- *Blood also produce antibodies against infection.*

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Q No.2: Hematopoiesis

- **Ans:**

Hematopoiesis *is the process by which immature cell develop in to mature blood cell. Hematopoiesis is produce all those of blood cell and blood plasma. It occurs in the hematopoietic system which includes organs and tissues such as the bone marrow, liver, and spleen.*

- Hematopoiesis begins the first week of embryonic development.
- *All type of blood cell and plasma develop from stem cell that can develop from any other cell.*
- Hematopoiesis depends on the body needs .the body continually manufacture new

blood cell to replace old cell. About one percent of the body blood cell must be replaced every day.

- The process of hematopoiesis begins with an unspecialized stem cell. This stem cell multiplies, and some of these new cells transform in to precursor cells.

Q No.3: Bone merrow

- **Ans:** *Bone merrow is a spongy like tissue found in the hollow portion of bone in the body.*
- *All new blood cells are produced in the bone merrow. Bone merrow is the primary site of new blood cell.*

- *In adult humans bone merrow is primarily located in the ribs, vertebrae, sternum, and bones of the pelvis.*
- *Bone merrow comprises approximately 5 percent of total body mass in healthy adult humen.*
- *Bone merrow transplants can be conducted to treat severe diseases of the bone merrow, including certain form of cancer such as leukemia.*
- *In adult humans bone merrow is found in the pelvis, sternum, cranium, ribs, vertebrae and scapula,and variable found in the proximal end of the Long bones such as the femur and humerus.*
- *In circumstances of chronic hypoxia, the body can convert yellow marrow back to red marrow back to red marrow to*

increase blood cell production.

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Q No.4:

Ans: After birth and during early childhood , hematopoiesis occurs in the red marrow of the bone. With age of hematopoiesis restricted to the Brain, sternum,ribs, vertebrae, and pelvis.

- *In children hematopoiesis also occurs in all over the body.*
- *In adult humen there is also occurs in the center of the hollow spaces of the bone.*

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Q:1 Enlist characteristics of blood.

Q:2 Briefly Explain hematopoiesis.

Q:3 write down a comprehensive note on bone merrow.

Q:4 Describe different sites of hematopoiesis in fetus, infants and adults