

HEMATOLOGY

SECTION (B)

Q:1 Characteristics of blood

- There are four components of blood
- 1. PLASMA:
constatint of water, protien, ions,nutriants,
- 2. RED BLOOD CELLS:
Also called RBC, they carry oxygen and Co2
- 3. WBC:
Also called white blood cells, and part of immune system
- 4. PLATELETS:
Responsible for blood clotting.

Q:3 NOTE ON BONE MARROW

- It is a spongy tissue
- Located on flat bone
- Like sternum and hip bone
- There are two types of bone marrow
 - 1:WHITE BONE MARROW (WBM)
 - 2:RED BONE MARROW (RBM)
- White bone marrow also known myeloid tissue
- Red bone marrow also called fatty tissue
- Both type are highly enriched and vascularized
- RBC platelets form in red bone marrow of adult.
- Bone marrow at birth is red.
- In adult half is red and half is white.

Q:4

1: SITE OF HEMATOPOIESIS IN FETUS:

- Hematopoiesis occur in yolk sac during 0-2 months
- After two to seven month in liver and spleen.
- After 5-9 month hemopoiesis in bone marrow.

2: SITE OF HEMATOPOIESIS IN INFANTS:

- Particularly in all bone

3: HEMATOPOIESIS IN ADULT:

- Vertibrate, proximal end of femur, sacrum, pelvis, sturnum and ribs.

Q:2 HEMATOPOIESIS:

- Means the production of all type of blood cells.
- Including development formation and differentiating of blood cells.
- It is occur with in hematopoietic system.
- Such is bone marrow and spleen.

➤ **SITE OF HAEMOPOIESIS**

➤ **FETUS:**

0-2 months -- yolk section

2-7 months --spleen liver

5-9 months --bone marrow

➤ **INFANTS:**

Bone marrow

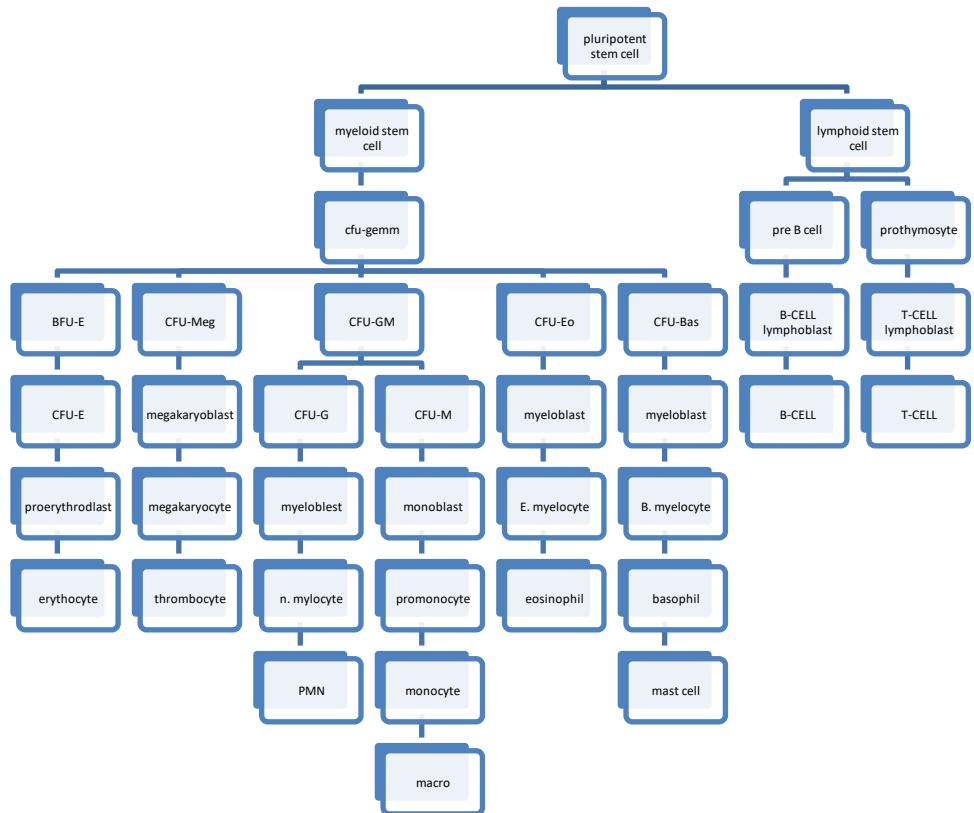
➤ **ADULT:**

Vertibrate, ribs, sturnum etc

➤ **STEM CELL:**

It is a cell which divide through mitosis to speciallize cell and produce more stem cell.

NORMAL PROCESS OF HEMATOPOIESIS



SECTION (A)

- 1: None of them (E)
- 2: None of them (E)
- 3: All of the above (E)
- 4: 4.7 to 6.1 cell/mcl (A)
- 5: Thrombocytopenia (A)
- 6: White bone marrow (C)
- 7: Fatty tissue (C)
- 8: Polycythemia (B)
- 9: Both A & B (C)
- 10: 3 months (B)