



All questions should be answered

١- Write brief account on

(٨marks , ٢ for each)

- a- Diagnosis of acute leukemia .
- b- Hemolytic anemia.
- c- Polycythemia Vera.
- d- Thrombocytopenia .

٢-Write short notes on

(٧,٥ marks ١,٥ each)

- a-Reticulocytosis
- b- neutropenia
- c-Shift to left
- c-Aplastic anemia .
- d.Thrombocytopathy.

٣-Mark true or false

(٢marks, ٠,٥ for each)

- a-Macrocytosis and hypochromia indicate the presence of large leukocytes
- b- Increased aminolevulinic acid synthase activity increase heme production.
- c-Enzyme deficiency in Hexose monophosphate pathway leads to formation of hemorrhagic anemia .
- d- presence of multisegmented neutrophil in the peripheral circulation indicates bone marrow regeneration

٤-Choose the correct answer

(٤,٥ marks ٠,٥ for each)

١- The major site for removal of normal, aged erythrocytes is the

- a-bone marrow b- liver c- kidney d- spleen

٢- **Ahematocrit measures**

- a-The percentage of blood cells in blood
- b-The percentage of lymphocytes .
- c-The percentage of blood cells consisting of leukocytes
- d- The percentage of red cells in blood

٣- **In which of the following conditions will monocytes be increased**

- a-Tuberculosis b- parasitic infection c-ulcerative colitis
- d- non of the above

٤- **Which of the following tests is most effective means of assessing red cell generation in response to anemia ?**

- a- Red blood cells distribution width.



b-Reticulocyte count

c-Platelet count

d- CBC

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◦- **Which red cell inclusions originate as a result of denaturated hemoglobin**

a- Howell and jolly bodies

b- Hienz bodies

d- malarial parasites .

c- Pappenhiemer bodies

٦- **Qualitative abnormalities in white cell include all except which of the following**

a-Toxic granulation b-Hypersegmentation c-Metarubricyte d-Dohle bodies

٧- **Red blood cell production will be stimulated by**

a-Erythropoietin

b-Decreased muscle

activity c-Increased oxygen availability d- Decreased number of white blood cells.

٨- **In which of the following conditions will macropolycytes present.**

a-Hemorrhagic anemia

b- Aplastic anemia.

c-hemolytic anemia.

d- non of the above

٩- **Anemia of chronic disease includes.**

a-Vitamin B١٢ deficiency b- Pernicious anemia c- Increased secretion of erythropoietic factor d- All of the above

e- None of the above .

◦- **Classify only**

(٣ marks one for each)

a-Anemia

b- polycythemia.

c-Leukemia .

GOOD LUCK