

## **HISTOLOGY**

- 1) which of the following is Not made of reticular framework:
- A) bone marrow
- B) lymph node
- C)spleen
- D)Thymus
- E) None of the above
- 2) which of the following has a hyloromere & granulomere .
- A) small cell-like element has many granules
- B) binucleate cell with acidophilus granules
- C) granulated polymorphic cells
- 3) which of the following is not a function of plasma proteins:
- A)immunity
- B)clotting
- C)oxygen carrying
- D)osmotic pressure

- 4) Which of the following characteristics is the least value to distinguish between spleen & lymph nodes:
- a) blood sinusoid
- b) Subcapsular sinus
- c) small dark round nucleus cells
- d) fibroblasts in capsule and trabaecule

Ans: D

5) The correct sequence of PMN maturation is:

Ans:

myeloblast>promyelocyte>myelocyte>metamyelocyte> band cell >segmented cell

6) The at least value to distinguish between spleen & lymph nodes:

Ans: Lymphatic follicles

- 7) Wrong statement regarding WBC:
- A)monocytes powerful phagocytic ability
- B) basophils releases eisonophilic chemotactic agent
- C)eisonophilis act in parasitic infection
- 8) The correct order for hematopoiesis in fetus:
- A) bone marrow yolk sac -liver
- B) yolk sac spleen/liver bone marrow
- C) liver /spleen yolk sac bone marrow

Ans: A / B

## **BIOCHEMISTRY**

- 1) fetus has less 2,3-BPG Than adult due to:
- a) The rapidity of glycolic pathway
- b)pk m is less efficient
- c)pk L is activated
- 2) One of the following is wrong consider G6PD deficiency disorder:
- a) Common in males more than females
- b) Point mutation
- c) Lead to hemolysis
- d) In Jordan is common disease due to the unstable enzyme & normal activity
- 3)Choose the wrong statement regarding methemoglobin reductase:
- A) Need NADH to reduce ferric
- B) NADPH is needed in treatment
- C) The Pentose phosphate pathway is critical in its mechanism

Ans: A/D/C

- 4) incorrect in fetus 6-8 week hemoglobin compare to
- 24 week fetus:
- A) there is a homotetramer Hemoglobin
- B) there is variety of Hb types
- C) they decrease after a short time
- 5) 2,3-BPG is different in fetusdue to a change in:
- A) His 146
- B) His 143 on beta or alpha chain
- C) His 143 on beta only
- 6) wrong about CO2 binding:
- A) one third bind to hemoglobin
- B) CO2 stable the T state
- C) CO2 bind to heme
- D) CO2 bind to hemoglobin in the ferrous form
- 7) The mutation of HBE results from:
- A) A incorrect splicing of RNA protein
- B) point mutation

Ans: A / C / C/ A

- 8) Not true regarding Hill COEFFICIENT:
- A) doesn't reflect the degree of cooperativity
- B) reflects the positive cooperativity
- C) reflects the negative cooperativity
- D) reflects the numbers of molecules that bind

Ans: D

## **PHYSIOLOGY**

- 1) wrong statement regarding platelets:
- A) helps in injury site remodeling
- B) helps in clot retraction
- C) platelets adhesion is platelets attached together in injury site
- 2) Wrong statement regarding hemostasis:
- A) platelet aggregation is after clot formation
- B) Migrating neutrophils binding is weak
- 3) Not a role of thrombin:
- A) polymerization of fibronogen monomers to fibrin fibers
- B) Binds to its receptor on platelets
- C) Promotes activation of factor v

Ans: C/A/A

4) Wrong regarding WBCs:

Ans: phagocytes is random process

- 5) If you know that each gram of hemoglobin can be maximally saturated with 1.34ml oxygen in human, how many oxygen will be needed in normal male?
- A)21 ml/dl
- B)27 ml/dl
- C) 83 ml/dl
- D) 15 ml/dl
- 6) one of the following is procoagulant:
- A)protein c
- B) heparin
- C)phospholipid
- D)prostacyclin
- E) thrombomodulin

Ans: A/C

- 7) Choose the wrong statement:
- A)HCT is higher in pregnant women than non pregnant
- B)HCT in a male is lower than 40% means he has anemia
- 8) In which of the following there is low erythropoietin?
- A) hemolytic anemia
- B) Nephrotic syndrome
- C)newborn
- D) high testosterone
- 9) What causes erythema (redness) in inflammation:
- A)increase permeability
- B) relaxation of vessels smooth muscle
- C) pressure on nerve endings

Ans: A/C/B

- 10) Regarding red blood cells parameters, which of the following is wrong:
- A) Hemoglobin stays at the same level during life
- B) Iron deficiency anemia is microcytic hypochrmic
- C) Aplastic anemia is haemolytic anemia
- 11) regarding PT/PTT/INR which one is wrong:( self reading material)
- A) Ptt is used to assess extrinsic pathway
- B) Pt needs calcium while ptt doesn't
- C) If a patient take warfarin then INR will high

Ans: 10-A, 11-B

12) wrong statement:

Ans: neutrophils can phagocytos a complete RBC

- 13) What is the wrong order of coagulation cascade? (Deleted question)
- A) Tissue factor --> VIIIa --> prothrombin
- B) Tissue factor —> extrinsic pathway—> factor Xa
- C) XII —> XI —> VIII
- 14) wrong statement regarding iron metabolism In hemolysis:
- A) eliminated through gi system
- B) biliverdin —> bile

Ans: A

## **PATHOLOGY**

- 1) A12 year old patient that has a traumatic accident, and she was hospitalized. her hemocrit level was low even after blood transfusion, what will appear after 7 days?
- a) reticulocytosis
- b) Decreases EPO
- c) Leukocytosis
- d) Leukopenia
- e) Schistocytosis
- 2) We can find large macrocytic RBCs in all the following except:
- A) Hypothyroidism
- B) Myelodysplastic syndrome
- C) Treatment with Alpha methyl dopa
- D) Vegans
- E) Alcoholism

Ans: A/C

- 3) Folate deficiency occurs following:
- a) iron deficiency
- b) acute hemorrhage
- c)chronic gi bleeding
- d)Chronic hemolytic anemia
- 4) Anemia is associated with lymphoma except in:
- A) Aplastic crisis
- B)treatment with methotroxat
- C) increase in IgM
- D) megaloplastic anemia
- E) bone marrow infiltration
- 5) A disease can be treated by splenectomy:
- A) sickle cell
- B) hereditary sphereocytosis
- C)PNH

Ans: D/A/B

- 6) A disease in which RBCs lack central pallor, we find:
- A) High MCHC
- B) High MCH
- 7) Which is wrong regarding polycythemia Vera?
- A)basophilia
- B) high altitude tributes
- C)chronic pulmonary disease
- 8) All of the following lead to Iron deficiency except:
- a)gi bleeding
- b)relative polycythemia
- 9) Folic acid deficiency is commonly happen in one of the following:
- A) Chronic hemolysis
- B) Chronic blood loss
- C) Acute blood loss
- D) Chronic inflammation

Ans: A / B / B/ A

10) doesn't lead to severe anemia:

Ans: Cd55

