

Hemato-Final exam-2012

**Histology:**

(1) which of the following is true:

>>> 5-lobed-nucleus neutrophils is more mature than 4-lobed one

(2) which of the following is false:

a- neutrophils phagocytic activity is enhanced by the presence of complement

b- absence of barr body in neutrophils and other body cells indicate true male (XY)

(3) which of the following is false:

a- both T helper cells and cytotoxic T cells have IL-2 receptor

b- T cytotoxic have IL-1 receptor

(4) which of the following result in true neutrophilia:

>>> bacterial infection

**Biochem:**

(1) heme oxygenase:

>>> require molecular oxygen

(2) which of the following is true about uroporphyrinogen:

a- can be synthesized directly from PBG by cosynthase

b- result from direct conversion of coproporphrinogen

(3) which is true about HbS and HbA:

a- both have different migration speed in electrophoresis at PH 1-2

b- both have different migration speed in electrophoresis at PH 8-9

(4) all true about heme except:

>>> containe 4 methyl and 4 vinyl groups attached to it

(5) which of the following is true:

- a- all organs, unlike RBCs, have another pathway to synthesis NADPH
- b- NADH is required for the activity of cytochrome b5 reductase
- c- G6PD deficient mediterranean variant show sever enzyme deficiency of young cells
- d-....
- e- all of the above are true

(6) which of the following can't be present in beta thalassemia:

>>> HbH

**Pharmacology:**

(A) match the following with their side effects:

- 1-protamine sulfate
- 2- clonidine
- 3- quinine
- 4- coumarin
- 5- Epi.....

- a- blurred vision
- b- fetotoxic
- c- .....
- d- bleeding
- e- hypotension when rapidly infuse

(B) match the following with their therapeutic indications:

- 1-protamine sulfate
- 2-heparin
- 3-warfarin
- 4-primaquine
- 5- A.....

- a-radical cure of vivax and ovale
- b-bind antithrombin
- c-fibrinolytic
- d-inhibite synthesis of coagulation factors V, VII, ....
- e-heparin toxicity

**Microbiology:**

*Dr.hassar:*

(1) which is not true about P.malariaia:

- a- chroinicity
- b- glomeriolonephritis
- c- hypnozites
- d- benign
- e- band form

(2) which is wrong about malraia:

>>> sporogony in the liver

(3) frequency ... P.Vivax, P.Falciparium, P,malarie, P.ovale

*Dr.3azmi:*

(1) which is true about sepsis:

- a- positive blood culture always
- b- mostly caused by gram positive
- c- result always in multiple organ dysfunction
- d- always following trauma and surgery
- e-....

(2) which is false about HIV/ AIDS:

- a- the virus is stable through out the coarse of infection
- b-

(3) which of the following is true about EBV:

>>> skin rash following treatment with ampicillin

(4) which is true:

- a- HIV always accompanied by particles that are non immunogenic
- b- low CD4 cells turn over

(5) sth about HIV tests:

- a- antigen detection is not recommended as a screening test
- b- .....

**Physiology:**

1. the least common blood group :  
AB
  
2. which of the following is not true :
  - a- IDA & sideroblastic anemia are the most common forms of microcytic anemia
  - b- indices calculated from blood cells are defined
  - c- IDA is a common clinical problem throughout the world
  - d- estimated to affect 30% of the world's population
  
3. the cells that are found in allergic reactions :
  - a- basophils
  - b- eosinophils
  - c- monocytes
  
4. which is true about blood PH:
  - a- the reference of acid-base state is not according to neutral value of 7 but according to PH of 7.4
  - b- acidosis is any blood PH below 7.34
  - c- alkalosis is any blood PH above 7.54
  - d- normal value is 7.4
  - e- all of the above
  
5. which is wrong:  
>>> thrombin, urokinase, streptokinase are plasminogen activators
  
6. which of the following tissue don't contain lymphatics:  
>>> central nervous system
  
7. which of the following is wrong:
  - a- water accounts for 10 % of body weight of females and males
  - b- osmolality of plasma is 246 mOsmol
  - c- sodium chloride contribute by 164 mOsmole

8. arrange the following according to activity in hematopiosis:  
vertebra, sternum, ribs, femur, tibia (not sure of the true arrangement)
9. which of the following result in shift to the right in hemoglobin oxygen saturation curve:
  - a- exercise
  - b- decrease temprature
  - c- increase PH
  - d- decrease PCO2
  - e- decrease diphosphpglycerate

**Pathology:**

1. ALL is most commonly affecting the age group :
  - a- 2- 4 years
  - b- 60 - 70
2. the prominent clinical feature of ALL that occur in children :
  - a- bone & joint pain
  - b- petechiae
3. testicular involvement usually occur in :  
ALL
4. all of the following are favourable prognostic factors for ALL :
  - A- hyperploidy
  - b- age = 2- 10 years
  - c- WBCs are low
  - d- MYC mutations
  - e- females
5. AML with high incedince of DIC :  
M3
6. AML with cells of marked tendancy to circulate .. ?
  - a- M3
  - b- M5
  - c- M2
7. circulatory megakaryocytes are found in :  
AML M7

8. in addition to CML, philadelphia chromosome is associated with :  
burkitt's lymphoma
9. soccer ball lymphocytes & smudge cells are present in :  
CLL
10. the definitive test for hereditary spherocytosis is :  
1- coombs test  
2- osmotic fragility test  
3- ham test
11. auer rods are :  
diagnostic for AML
12. the involvement of more than 1 lymph node on the same side of the diaphragm is  
feature of :  
stage II lymphomas
13.  $t(8:14)$  is commonly seen in :  
Burkitt's lymphoma
14. the expression of CD30 (ki- 1+ ) is often associated with:  
(anaplastic large cell lymphoma )
15. background cells ( L& H ) HISTOCYTES & LYMPHOCYTES + the popcorn  
appearance of cells is commonly seen in :  
nodular lymphocyte predominance
16. all are adverse prognostic factors for Hodgkins diseases except :  
a- involvement of the liver  
b- male  
c- age > 45



- d- eosinophilia
- e- anemia ( not sure abt this alternative )

17. BCL2 ... in :

- a- hodgkins diseases
- b- diffuse large cell lymphoma
- c- follicular lymphoma
- d- MALT lymphoma

18. which of the following occur in hemolytic anemias:

- a- erythroid hyperplasia of bone marrow
- b- hypocellularity of bone marrow

19. the most common result of CML blastic crisis is:

>>> AML

- \* a question about the common age group for a type of a leukemia
- \* a question about circulating neoplastic cells are seen in >>CLL

### **Lab:**

#### **Pathology:**

- ALL - L3
- Wrong statement (burkitt's): Low Grade
- Nodular Sclerosis HD.
- the cell pointed at >>> myelocyte

#### **physio:**

- picture of Erythropoiesis>>> at which stage erythropoietin act?
- question about ESR test:
  - a- increase in the case of polycythemia



- b- increase in the case if protein content of plasma increased
- c- diagnostic
- d- change according to age, sex

- question about reticyloocyte
  - a- stay in the bone marrow for 2-3 days
  - b- normally account for 1% of blood cells
  - c- mature in the blood within 1-2 days
  - d- can synthesis Hb
  - e- sth wrong
- O2 Dis. Curve : Anemia/ Shift to the right.

- Monocyte: Reenter Circulation / Wrong

- Q about Bleeding Time .... ????

- Wrong Combination of blood group .... Rh

- Progenitor/ Stem cell stimulated by most common stimulating factors..... ???

**histo:**

(1) which of the following cells u can't see in the picture(pic 10 in lab slides):

- a- myeloblast
- b- promyelocyte
- c- myelocyte
- d- metamyelocyte
- e- more than one of the above

(2) pic 9 in lab slides, which of the following cells don't have hemoglobin:

- a- P
- b- P and N1
- c- N1 & N2
- d- N1 & N2 & N3
- e- none of the above

(3) pic 2 in lab slides, which of the following is true:





- a- 1 is a Neutrophilic myelocyte  
b- 2 is a Basophilic erythroblast  
c- both are correct  
d- neither is true

(3) question about monocyte

(4) a pic of postcapillary venule of a lymph node, which is true:

- a- present in the medulla of lymphnode  
b- used by the lymphocytes to get from lymph to blood  
c- both are correct  
d- neither of which

(5) pic 10 in lab slides, which is true:

- a- the pointed structure is medullary cords  
b- .....  
c- both are correct  
d- neither is true

(6) which of the following is wrong(pic of palatine tonsil):

- a- 1 is crypt  
b- 2 is lymphatic follicle  
c- 3 is stratified squamous epithelium  
d- it's pharyngeal tonsil  
e- neither of the above

(7) picture of 2ry follicle, which is true:

- a- it contains plasma cells and memory cells  
b- it's present in the cortex of lymph node  
c- both correct  
d- neither is true

(8) sinusoids of spleen ... answer>> most probably neither of them is true coz it says they are present with lymph node.

\*Cell not appearing —> most probably myelocyte

**\*\*وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ عَلَيْهِ تَوَكَّلْتُ وَإِلَيْهِ أُنِيبُ\*\***