

## Final HLS

1-All of the following show microcytic hypochromic anemia except?

- A- Thalassemia
- B- Anemia of chronic inflammation
- C- Iron deficiency anemia
- D- Sideroblastic anemia
- E- Aplastic anemia

2- Pica, a side effect of iron deficiency anemia, is?

- A- Eating things that you don't usually eat
- B- Numbness in extremities

3-The ability of a screening tool to label people without the targeted condition as "unaffected"?

- A- Specificity
- B- Sensitivity
- C- Negative predictive value
- D- Positive predictive value

4 -What kind of cells would be found in lymphatoid polyposis?

- B lymphocytes

5- False about CLL?

most cases TdT positive

6-Wrong about Lymphocytes reactivity? Diffuse effacement

7-Mutation found in ALL?

NOTCH1

8 -In the case of Diffuse large B cell lymphoma what is the genetic mutation?

- BCL6

9-a 60 year old present with erythroid patch, and epithelial cells would be positive for?

- CD4

10- All of the following are risk factors from OPSI except?

A- more prevalent in females

B- children younger than 15

C- immunosuppression

D- hematologic disease

E- highest incidence after 2 years

11- What is false about thoracic duct ?

- ends at brachiocephalic vein

12- Erythroblastosis fetalis occurs with?

-Rh-ve mom and Rh +ve fetus

13- Person with blood group B -ve can get a transfusion for the second time from?

-O -ve

14 - Which of the following is true about neutrophils?

-has lysosomes and oxidase enzyme

15 - What lacks a covering made from reticular fibers?

-Thymus

16 - What is incorrect about splenic cords?

A- called Billroth

B- filled with RBC

C- between white pulp and sinusoids

D- infiltrated with blood cells and lymphoid cells

17-What is found in the white pulp of the spleen?

- Periarteriolar lymphoid sheath

18 - Which of the following is constituent of blood thymus barrier?  
-perivascular space filled with macrophages

19 - genotype of HbC and D, Cooley's anemia and alpha thalassemia minor?  
HbCB+3/HbDB0 -a/a-

20-What markers are used to diagnose Testicular cancer and rheumatoid arthritis respectively?

A- a-fetoprotein and cryoglobulins

B- a-fetoprotein and b2-microglobulin

21- Enzymes that require Zn?

-SOD, carbonic anhydrase, lactate dehydrogenase

22-Enzymes in the nucleotide salvage pathway?

-AMPDA, HGPRT, ADPRT

23- In the glycolytic pathway, what enzyme deficiencies have an effect on the 2,3DPG level?

Phosphoglucose isomerase, phosphoglycerate kinase, diphosphoglycerate mutase

24- 18 year old was mildly icteric, normal CBC, normal LDH, hepatitis negative, bilirubin increased... after a week, bilirubin levels decreased without mutation, what is the cause?

- Transient bile obstruction by gallstone

25- Wrong about porphyria cutanea tarda?

- besides Variegate porphyria, both have neurocutaneous symptoms

26- What is true about the enzyme that converts propionyl into vinyl?

A-Mitochondrial enzyme

B-carboxylase enzyme

27- Which of the following does not describe hepcidin?

A- upregulation by high iron negatively regulates ferroportin

- B- downregulation by low iron positively regulates ferroportin
- C- its increased expression negatively affects bacterial growth
- D- its decreased expression positively affects bacterial growth
- E- has a direct effect on transporting iron from tissues to blood??????

28- What type of cells can be found in Sinus histiocytosis?

- Histiocytes

29- What is the percentage of association between lymphoplasmacytic lymphoma and MYD88?

100 %

30- a case about CLL, details given: soccer-cells, CD5, PAX5) Which of the following is incorrect?

- tdt marker positive

31- Which of the following is not a myeloproliferative disease?

Multiple myeloma

32- a case, details given: pseudo-pelger cells, binucleated megakaryocyte, hypercellular BM) What is the diagnosis?

- Myelodysplastic syndrome

33- Most common coagulation/bleeding disorder?

- Hemophilia A

34- Anemia with high ferritin and low serum iron and low TIBC?

- chronic inflammation anemia

35- A patient present with an abdominal mass, after splenectomy the spleen weighed 700g, all the following can be possible causes except?

- Malaria

36- Which of the following is not associated with sickle cell disease?

- Oxygenated hemoglobin

37- Intravascular hemolysis, what test is used to investigate it?

- Plasma level of hemoglobin

38- What is a sign of megaloblastic anemia due to b12 def?

A- weakness and fatigue

B- good memory

C- increased appetite

39- An elderly man with low Hb, low retic, low serum iron, high TIBC, what is the most likely cause?

- GIT bleeding

40- Which of the following not true in G6PD?

- increased NADPH production

41 - TseTse fly transmits which disease?

- T. Brucei

42- What is the pathogenesis of elephantiasis?

- Fibroproliferative disease that obstructs lymph channels

43- Reiter syndrome is associated with which pathogen?

- Salmonella enteritidis

44- H<sub>2</sub>S gives black centers on which media?

- XLD

45- This type of plaque is the most dangerous?

- Septicemic plaque

46- The plaque spreads from ---- to ----, and then to ----

A- Rats, fleas, humans

B- fleas, birds, humans

47- Atypical lymphocytes in EBV are what type?

- CD8 lymphocytes

48-spotted rocky mountain fever from which pathogen?

- Rickettsia rickettsii

49- which type of malarial paroxysm appear every 3 days (2 days symptom free)?

- P.malariae

50-Which of the following is wrong about iron therapy?

- continues indefinitely

51-Warfarin is given in all of these conditions except?

A- pregnancy

B- DVT

C- Atrial fibrillation

D- artificial heart valve

E- with heparin to treat MI

52- All the following are direct thrombin inhibitors except?

- Heparin

53- Which of the following drugs is not an antimetabolite?

- Chlorambucil

54- Which of the following is not part of POMP regimen?

A- Prednisone

B-Vincristine

C -Methotrexate

D -Mercaptopurine

E-paclitaxel

55-What monoclonal antibody is against vascular endothelial growth factor?  
Bevacizumab

56- in toxoplasmosis all true except

- A- the etiologic agent *T. Gondii* is distributed worldwide
- B-Seropositive is detected in narrow population. ✓
- C-Threat to unborn females.
- D- They are intra cellular.
- E- Oocyst is an infective stage.

57- Malarial paroxysm pattern that appear in day 1 and 4 and 7 etc. can be caused by?

- A. *Plasmodium falciparum*.
- B. *Plasmodium vivax*.
- C. *Plasmodium ovale*.
- D. *Plasmodium malariae*. ✓
- E. *Babesia microti*.

58- Class II MHC antigens are expressed on the following cell?

- a. Epithelial cells.
- b. Bone cells.
- c. Red blood cells.
- d. T-lymphocytes.
- e. Macrophages. ✓

59- In the process of hematopoiesis, myeloblasts give rise to

- a. Erythrocytes.
- b. Basophils. ✓
- c. Lymphocytes.
- d. Monocytes.
- e. Platelets.

60 - A pregnant woman comes in for a visit. She is AB Rh- and her husband is A Rh+. This is her first child. What should be done at this time?

- a. Nothing. ✓
- b. Administer anti-D immunoglobulin to the mother at this time.
- c. Administer anti-D immunoglobulin to the mother after delivery.
- d. Administer anti-D immunoglobulin to the child after delivery.
- e. Administer anti-D immunoglobulin to the child if the child is Rh+.

61- Anemia associated with low reticulocytes includes all of the following EXCEPT?

- a. Hemolytic anemia. ✓

- b. Iron deficiency anemia.
- c. Vitamin B12 deficiency anemia.
- d. Folic acid deficiency anemia.
- e. Aplastic anemia.

62- What is the proper pathway for the extrinsic clotting pathway?

- A. Contact of blood with collagen. formation of prothrombin activator, conversion of prothrombin into thrombin, conversion of fibrinogen into fibrin threads.
- B. Tissue trauma, formation of prothrombin activator, conversion of prothrombin into thrombin, conversion of fibrinogen into fibrin threads.
- C. Activation of platelets, formation of prothrombin activator, conversion of prothrombin into thrombin, conversion of fibrinogen into fibrin threads.
- D. Trauma to the blood, formation of prothrombin activator, conversion of prothrombin into thrombin, conversion of fibrinogen into fibrin threads.
- E. Collecting blood sample on silicon coated test tubes.

63- The coagulation pathway that begins with tissue thromboplastin is?

- a Extrinsic pathway.
- b. Intrinsic pathway.
- c. Common pathway.
- d. Fibrin stabilization.
- e. Fibrinolysis.

64 -) Hemophilia is characterized by the following, EXCEPT?

- A. Prolonged prothrombin time.
- B. Prolonged clotting time.
- C. Decrease clotting factors VIII or XI or IX.
- D. Prolonged activated partial thromboplastin time (APTT).
- E. Hemo-arthrosis.

65- True statements regarding alkylating agents include all the following EXCEPT? Select one:

- a. They are cell cycle nonspecific agents.
- b. Acquired resistance can occur.
- c. They add alkyl groups to DNA.
- d. They are structurally similar to naturally occurring substances.
- e. Nitrogen mustards are examples of this class of drugs.

66- All the following about Trastuzumab are true EXCEPT?

- a. It antagonizes the vascular endothelial growth factor receptor.

- b. It is used for the treatment of metastatic breast cancer.
- C. It is administered intravenously.
- d. It's adverse effects include congestive heart failure, fever, and chills
- e. It induces cellular cytotoxicity

67 - All following matches about immunosuppressants are true EXCEPT?

- a. Cyclosporine- Calcineurin inhibitor.
- b. Tacrolimus side effects- neurotoxicity.
- c. Azathioprine- inhibits purine synthesis.
- d. Muromonab- against CD 25 antigen.
- e. Basiliximab- IL-2 receptor antagonist

68- All following are side effects of cyclosporine EXCEPT?

- a. Nephrotoxicity.
- b. Hepatotoxicity.
- c. Anaphylactoid reactions.
- d. Infections.
- e. Neurotoxicity.

69- All the following are true about iron deficiency anemia EXCEPT?

- a. Microcytic hypochromic RBCs.
- b. Low hemoglobin.
- c. Low serum iron.
- d. Low serum ferritin.
- e. Low serum soluble transferrin receptors.