

HEAMATOLYMPHATIC SYSTEM

FINAL EXAM - Wareed batch

إعداد :



1) Spotted fever is caused by?

- a. R. rickettsii.
- b. O. tsutsugamushi.
- c. R. prowazekii.
- d. R. thypi.
- e. Coxiella burnetii.

2) One of the following tumors is not associated with mutations in the kinase BRAF?

- a. Langerhans Cell Histiocytosis.
- b. Benign nevi.
- c. Papillary thyroid carcinoma.
- d. Malignant melanoma.
- e. Smoldering myeloma.

3) The following are adverse effects of ferrous sulfate tablets in adults except?

- a. Melena in patients with peptic ulcer.
- b. Change in bowel habit.
- c. Epigastric pain and nausea
- d. Black tongue and black stain of oral mucosa
- e. Occult blood in stool.

4) Which of the following enzymes in heme synthetic pathway is requiring a cosynthase molecule for the asymmetric substitution of heme tetrapyrrole ring?

- a. ALA synthase.
- b. Uroporphyrinogen synthase III.
- c. PBG deaminase.
- d. Protoporphyrinogen oxidase.
- e. Uroporphyrinogen decarboxylase.

5) The main role of leucocytes is the following?

- a. Fibrinolysis.
- b. Protective
- c. Coagulation.
- d. O₂ transport.
- e. CO₂ transport.

6) When looking at a lymph node. which term does not refer to the same region as all the others listed?

- a. Deep cortex.
- b. Thymus dependent area.
- c. Outer cortex.
- d. Juxtamedullary cortex.
- e. Paracortical zone.

7) 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.

8) Which one of the following sets of enzymes in heme synthetic pathway can be inhibited by lead?

- a. ALA synthase and ALA dehydratase.
- b. PBG synthase and PEG deaminase.
- c. Uroporphyrinogen synthase III and ALA synthase.
- d. Uroporphyrinogen decarboxylase and Coproporphyrinogen oxidase.
- e. Ferrochelatase and ALA dehydratase.

9) Regarding anticoagulants. the following drug is the specific antidote of HEPARIN?

- a. Protamine sulphate.
- b. Neostigmine.
- c. Vitamin K.
- d. Fresh frozen plasma.
- e. Adrenaline.

10) A 33-year-old female has experienced low grade fevers. night sweats, and generalized malaise for the past 2 months. On physical examination she has painless cervical lymphadenopathy. A cervical lymph node biopsy showed occasional CD15+ and CD30+ Reed-Sternberg cells surrounded by mixed inflammatory cells and bands of fibrosis. Which of the following is the most likely her diagnosis?

- a. Follicular lymphoma.
- b. Mantle cell lymphoma.
- c. Burkitt lymphoma.
- d. Marginal zone lymphoma.
- e. Hodgkin lymphoma.

11) The chief site of mesoblastic period in prenatal hematopoiesis?

- a. Liver and spleen.
- b. Yolk sac.
- c. Bone marrow.
- d. Lymphoid tissue.
- e. Bone lamellae.

12) The lymph from the medial quadrants of the breast drain mainly into the?

- a. Posterior axillary (subscapular) nodes.
- b. internal thoracic nodes.
- c. Anterior axillary (pectoral) nodes.
- d. Lateral axillary (Humeral) nodes.
- e. Infraclavicular (deltopectoral) nodes.

13) A 32-year-old female patient who presents with new onset of neurologic abnormalities, renal dysfunction. Her past medical history was free. Laboratory studies show total RBC count of 2.7 million/mm³, hemoglobin of 7.5 g/dL. Platelet count of 70,000/mm³, and WBC count of 5000/mm³. Which of the following are the correct laboratory test findings that consistent with this case?

- a. Prolonged PT, PTT and BT.
- b. Prolonged PTT and PT with normal ET.
- c. Prolonged BT and normal PT and PTT.
- d. Prolonged PT and normal BT and PTT.
- e. Mild prolongation of PTT and normal BT and PT.

14) Agglutinins of ABO system?

- a. Are mono-valent.
- b. Can cross placental barrier.
- c. Belong to IgM type of immunoglobulins.
- d. Are present on RBCs.
- e. Belong to IgG type of immunoglobulins.

15) All the following could be assessed by peripheral blood film, EXCEPT?

- a. Red blood cells morphology.
- b. Estimated number of platelets.
- c. Estimated Hemoglobin level.
- d. WBC morphology.
- e. The percentage of WBCs differentiation.

16) When erythrocytes are hemolyzed intravascularly, then some of the heme molecules are oxidized. the rate of expression of the following protein is increased to scavenge iron?

- a. Haptoglobin.
- b. Transferrin.
- c. Ferritin.
- d. Hemopexin.
- e. Methemalbumin.

17) One of the following pairs between the haematopoietic neoplasm and the immunohistochemical stains commonly expressed by the tumor cells is wrongly matched?

- a. Pre—B Acute lymphoblastic leukemia: TdT.
- b. Small Lymphocytic Lymphoma: Cyclin D1.
- c. Hodgkin Lymphoma mixed cellularity type: CD30.
- d. Acute myeloid leukemia: MPO.
- e. Nodular lymphocyte predominant Hodgkin Lymphoma: CD10.

18) The conversion of fibrinogen to fibrin is promoted by?

- a. Factor X.
- b. Thrombin.
- c. Platelets.
- d. Prothrombin.
- e. Factor IX.

19) Chronic lymphadenitis with follicular hyperplasia can mimic the morphology of follicular lymphoma, ALL of the following features favor a reactive follicular (nonneoplastic) hyperplasia EXCEPT?

- a. Preservation of the lymph node architecture.
- b. Variation in the shape of the follicles.
- c. Variation in the size of the follicles.
- d. Recognizable light and dark zones.
- e. Absent germinal center phagocytic macrophages.

20) Haemophilia A is caused by decreased?

- a. Clotting factor IX.
- b. Clotting factor X.
- c. Clotting factor XI.
- d. Clotting factor VIII.
- e. Clotting factor IV.

21) Plasma levels of the following proteins can be used as biomarkers for diagnosis of multiple myeloma?

- a. Beta2-microglobulin, paraprotein and alpha-fetoprotein.
- b. alpha2— macroglobulin, Bence Jone's proteins and Beta2-microglobulin.
- c. Bence Jone's proteins, cryoglobulins and paraprotein.
- d. Beta2-microglobulin, alpha-fetoprotein and alpha2- macroglobulin.
- e. alpha1-antitrypsin, paraprotein and C-reactive protein.

22) One of these cytotoxic agents shows high emetogenic potential?

- a. Vincristine.
- b. Chlorambucil.
- c. 6-Mercaptopurine.
- d. Cisplatin.
- e. None of the selection.

23) In glycolytic pathway. pyruvate is normally released from inside erythrocytes because of?

- a. The low activity of glyceraldehyde 3-phosphate dehydrogenase.
- b. The high activity of pyruvate kinase.
- c. The maintenance of hemoglobin iron in the reduced form.
- d. The absence of metHb reductase enzyme.
- e. The high concentration of 2,3-bisphosphoglycerate.

24) A 12-year-old male patient has suffered from a long history of bleeding for hours or days after the injury as well as recurrent painful haemarthroses. Which of the following are the correct laboratory test findings that consistent with this case?

- a. Prolonged PT, PTT and BT.
- b. Prolonged PTT and PT with normal BT.
- c. Specific assay for factor IX or factor VIII above than 100 U/dl.
- d. Prolonged BT. normal PT and PTT and platelet less than 100.000/mm³
- e. Prolonged PTT and normal PT and BT.

25) The genetic defects in the membrane of erythrocytes are among the causes of hemolytic anemia. all of the following investigations for RBCs hemolysis are correct EXCEPT?

- a. CBC reveals high reticulocytes count.
- b. Liver enzymes are normal.
- c. Blood lactate dehydrogenase level is normal.
- d. Hemoglobinuria is detected.
- e. Urobilinogen and stercobilinogen are normal.

26) A healthy 19-year-old woman had a traffic accident. On admission to the hospital. her initial hematocrit was 32%. But over the next hour, it decreased to 27%. She was taken to surgery, where a liver laceration was found and repaired after that she was stable. A CBC performed 4 days later is most likely to show which of the following morphologic findings in RBCs in the peripheral blood?

- a. Basophilic stippling.
- b. Leukoerythroblastosis.
- c. Hypochromia.
- d. Reticulocytosis.
- e. Schistocytes.

27) Which of the following would best explain a prolonged bleeding time test?

- a. Hemophiliac A.
- b. Hemophilia B.
- c. Thrombocytopenia.
- d. Coumarin use.
- e. Hemophilia C.

28) In the process of hematopoiesis, myeloblasts give rise to _____?

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

29) A 44-year-old man has noted a change in the appearance of his face over the past 7 months. On physical examination his facial skin is full of thick and red plaques. Microscopic examination of a punch biopsy from the plaques shows infiltration of epidermis by cerebriform neoplastic T lymphocytes that are CD4 positive. Which of the following is the most likely diagnosis?

- a. Hodgkin lymphoma.
- b. Mycosis fungoides.
- c. Burkitt lymphoma.
- d. Acute lymphocytic leukemia.
- e. Marginal zone lymphoma.

30) One of the following rickettsia species was historically connected to many deaths among Napoleon's army. It is transmitted by louse vector and human can be a reservoir?

- a. *R. rickettsii*.
- b. *O. tsutsugamushi*.
- c. *R. prowazekii*.
- d. *R. typhi*.
- e. *Coxiella burnetii*.

31) 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*.

32) A 73-year-old-male patient presented to the clinic complaining of general weakness progressing over last 8 months. Physical examination revealed no fever or lymphadenopathy. Routine CBC showed pancytopenia. Bone marrow was hypercellular on biopsy along with erythroid precursors abnormalities including abnormal nuclear contour and iron deposits (ring sideroblasts), but no blasts were seen. Which of the following is the most likely diagnosis?

- a. Acute myeloid leukemia (AML).
- b. Megaloblastic anemia.
- c. Epstein-Barr virus infection.
- d. Myeloproliferative neoplasm (MPN).
- e. Myelodysplastic Syndromes (MDS).

33) The deficiency of pyruvate kinase is one of the causes of R805 hemolysis, but some of its manifestations can be hidden due to?

- a. Increase production of 2, 3 bisphosphoglycerate.
- b. Decrease production of 1, 3 diphosphoglycerate.
- c. Increase activity of Na/K ATPase.
- d. Increase activity of glucose 6-phosphate dehydrogenase.
- e. Increase ATP production.

34) One of the following is not among renal dysfunction features in multiple myeloma patients?

- a. Light chain deposition in the glomeruli.
- b. Bacterial pyelonephritis.
- c. Obstructive proteinaceous casts.
- d. Hypocalcemia.
- e. Renal stones.

35) A 16-year-old African-American man, who has recently taken a drug, passes dark reddish brown urine. His past medical history was free. On physical examination, he is afebrile, and there is mild jaundice. CBC shows a mild normocytic anemia, but the peripheral blood smear shows precipitates of denatured globin (Heinz bodies) with "bite cells" in the population of RBCs. Which of the following is the most likely diagnosis?

- a. RBC membrane abnormality.
- b. Beta-Thalassemia minor.
- c. Autoimmune hemolytic anemia.
- d. Glucose-6-phosphate dehydrogenase deficiency.
- e. Sickle cell disease.

36) Changes that occur in stored blood include?

- a. Increased platelet numbers.
- b. increased K^+ ions in plasma.
- c. Decreased Na^+ ions in RBCs.
- d. increased plasma concentration of factor VIII.
- e. increased plasma concentration of factor IX.

37) 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+.

38) Deep cervical lymph nodes include the followings EXCEPT?

- a. The jugulo-digastric Lymph nodes.
- b. Retropharyngeal nodes.
- c. Mastoid (postauricular) nodes.
- d. The jugulo-omohyoid lymph nodes.
- e. Pretracheal nodes.

39) vitamin B12 deficiency : Which statement is FALSE?

- a. Develops more quickly in patients with chronic liver disease.
- b. Increases plasma level of homocysteine.
- c. Causes deficiency of methionine.
- d. Causes megaloblastic erythropoiesis that can be corrected by folate.
- e. Can cause peripheral neuropathy that can be corrected by folic acid IM. XXX

40) The spleen is largely involved with the response to antigens which are in the _____?

- a. Tissues.
- b. Blood.
- c. Gut.
- d. Lungs.
- e. Urogenital tract.

41) Which of the followings is a special medium for Yersina pestis?

- a. Cysteine lactose electrolyte deficient (CLED) agar.
- b. Nutrient agar.
- c. Mannitol salt (MSA) agar.
- d. Charcol-based agar.
- e. Cefsulodin. Irgasan. Novobiocin (CIN) agar.

42)What is the dense lymphatic tissue in the spleen called?

- a. Lymph follicles.
- b. White pulp.
- c. Peyer's patches.
- d. Lymph node.
- e. Diffuse lymphatic tissue.

43) Hb inside RBCs performs the following functions EXCEPT?

- a. Allows R805 to pass in narrow capillaries. XXX
- b. O2 carriage.
- c. CO2 carriage.
- d. Acid — base buffer.
- e. Combines with Glucose to form glycosylated Hb.

44) The main function of eosinophil is?

- a. Anti- allergic action.
- b. Phagocytosis of invading organism.
- c. Cell-mediated immunity.
- d. Humeral immunity.
- e. Formation of blood clot.

45) Salmonella typhi one is WRONG?

- a. Motile.
- b. Non lactose fermenter.
- c. Encapsulated.
- d. Causes enteric fever.
- e. Treatment is supportive and no need for antibiotics.

46) In toxoplasmosis all the following are 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.

47) What condition leads to a deficiency in factor IX that can be corrected by an intravenous injection of vitamin K?

- a. Classic hemophilia.
- b. Hepatitis B.
- c. Bile duct obstruction.
- d. Genetic deficiency in Anti-thrombin III.
- e. Hemophilia C.

48) Which of the following chemotherapy agents acts by intercalation?

- a. Vincristine.
- b. Paclitaxel.
- c. Doxorubicin.
- d. Vincristine and paclitaxel.
- e. Topotecan.

49) All following about immunosuppressants are true EXCEPT?

- a. Tacrolimus ointment is used in treatment of severe atopic dermatitis.
- b. Muromonab is directed against CD3 antigen of T cells.
- c. Daclizumab is 10-fold more potent than Basiliximab.
- d. Basiliximab and daclizumab are IL-2 receptor antagonists.
- e. Muromonab is monoclonal antibody.

50) All of the following case scenario can lead to neutrophilia through decrease production EXCEPT?

- a. Patient with recurrent liposarcoma receiving radiation therapy.
- b. Advance stage colonic carcinoma patient receiving chemotherapy.
- c. Sickle cell anemia patient presented with splenic sequestration.
- d. Acute myeloid leukemia patient.
- e. Patient suffering from aplastic anemia due to chronic NSAIDs use.

51) Filgrastim: Which one of the following is FALSE?

- a. It can shorten the period of neutropenia after bone marrow transplant.
- b. It can be used to collect bone marrow stem cells from peripheral blood.
- c. Its effect on growth of myeloid progenitor cells is line-specific on granulocytes.
- d. Its effect on blood neutrophil count persists for few days rather than few weeks.
- e. Its side effects include bone pain, capillary damage, pleural effusion.

52) No long-life protection by trypanosomiasis infection because?

- a. The host immune system does not recognize glycoproteins as foreign molecules.
- b. Antibodies produced against early-stage VSGs do not react with late-stage VSGs.
- c. Antibodies are not protective due to antigenic change.
- d. Trypanosomes infect different organs as the disease progresses.
- e. It infects human being and get out fast.

53) The coagulation pathway that begins with tissue thromboplastin is?

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

54) The leucocytes which can proliferate by mitosis in response to stimulation are?

- a. Basophils.
- b. Neutrophils.
- c. Lymphocytes.
- d. Eosinophils.
- e. Monocytes.

55) Anemia is considered a severe public health problem if?

- a. Prevalence 20% or more.
- b. Incidence 20% or more.
- c. Incidence 40% or more.
- d. Prevalence 40% or more.
- e. Prevalence 50% or more.

56) Vinca alkaloids exert antitumor activity by?

- a. Activating topoisomerase II to cause breaks in DNA strands.
- b. Crosslinking DNA strands.
- c. Inhibiting DNA mediated RNA synthesis.
- d. Inhibiting polymerization of tubulin to form intracellular microtubules.
- e. None of the selection.

57) What occurs following activation of basophils?

- a. Decreased diapedesis of neutrophils.
- b. Decreased amoeboid motion.
- c. Contraction of blood vessels.
- d. Increased capillary permeability.
- e. Fibrin stabilization.

58) All of the following are indications for splenectomy EXCEPT?

- a. Idiopathic thrombocytopenic purpura.
- b. Hereditary spherocytosis.
- c. Cold autoimmune hemolytic anemia.
- d. Chronic myelogenous leukemia.
- e. Myelofibrosis.

59) A 20-year-old male patient who presented with a history of chronic anemia and recurrent infection. After excluding many causes of anemia, what is the best laboratory test to confirm the diagnosis of paroxysmal nocturnal haemoglobinuria?

- a. Bone marrow biopsy.
- b. Electrophoresis.
- c. Flow cytometry.
- d. Coomb's test.
- e. RDW.

60) The following may be useful for management of autoimmune aplastic anemia EXCEPT?

- a. Cyclosporine.
- b. Anti-thymocyte globulin.
- c. Bone marrow transplant.
- d. Hydroxyurea.
- e. Anabolic steroids like oxymetholone.

61) Vector transmitted leishmania diseases?

- a. Cyclop.
- b. Chrysops.
- c. Lice.
- d. Sand fly.
- e. Ticks.

62) Basophil granulocytes?

- a. Are the most numerous leucocytes.
- b. Have a life span of about 120 days.
- c. Are formed mainly in lymph nodes.
- d. Secrete heparin.
- e. Are strong phagocytic cells.

63) A prenatal testing for a pregnant woman reveals that her fetus will be born suffering from beta thalassemia intermedia and alpha thalassemia trait. Hb genotype of the fetus will be?

- a. HbB0/SB+3, --/-a
- b. HbB3/SB+3, -a/aa
- c. HbB+2/B+2. -a/-a ((B= beta))
- d. HbB0/SB+3, --/--
- e. HbB0/B0, -a/aa

64) Erythropoiesis involves the following stages of maturation EXCEPT?

- a. Colony forming erythrocytes.
- b. Promyelocytes.
- c. Basophilic Erythroblast.
- d. Normoblasts.
- e. Reticulocytes.

65) A 16-year-old boy presents at your office with a sore throat, fever. and enlarged lymph nodes. His tonsils are enlarged. the pharynx is inflamed, and spienomegaly is observed. He complains of severe fatigue. Confirmation of the causative agent is best done by observing?

- a. A positive Tzanck smear.
- b. Heterophile antibodies.
- c. Koilocytotic cells.
- d. RT-PCR for enterovirus.
- e. Mononuclear cells inclusions.

66) All of the following is true about Monoclonal gammopathy of undetermined significance (MGUS) EXCEPT?

- a. it is a plasma cell disorder.
- b. It is very common in older adult.
- c. Has constant rate of transformation to multiple myeloma but its low.
- d. Patients have small to moderately large M components in blood.
- e. Patients commonly present with pathologic fractures.

67) All of the following diseases are commonly associated with Leukoerythroblastosis EXCEPT?

- a. Primary Myelofibrosis.
- b. Tuberculosis involving the bone marrow.
- c. Chronic myeloid leukemia.
- d. Metastatic carcinoma.
- e. Advanced human immunodeficiency virus (HIV) infection.

68) Disseminated intravascular coagulation is a blood coagulation disorder that results in sudden widespread of fibrin thrombi in the microcirculation affecting the vital organs, choose the wrong one?

- a. It is secondary to other illnesses.
- b. Associated with the release of thromboblasic substances from the involved organs.
- c. Endotoxins and cytokines are apparent.
- d. Protein C is inhibited.
- e. Thrombomodulin expression is not suppressed on the endothelium.

69) All following are side effects of cyclosporine EXCEPT?

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

70) A 55-year-old woman has had increasing dragging abdominal sensation and enlargement for the past two years. An abdominal CT scan reveals massive (estimated 3000 gm) splenomegaly. Laboratory data revealed anemia, leukopenia, and thrombocytopenia. Nucleated red blood cells and tear drop morphology are seen in the blood film. Which of the following underlying conditions is she most likely to have?

- a. Portal hypertension.
- b. Chronic myeloid leukemia.
- c. Infectious mononucleosis.
- d. Myelofibrosis.
- e. Multiple myeloma.

71) 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.

72) Ari eight years old girl with abdominal pain and motor neuropathy, she was diagnosed of having congenital erythropoietic porphyria, which catabolite of the following can be detected in her urine?

- a. ALA.
- b. PEG.
- c. 7- carboxylate porphyrin.
- d. Uroporphyn'nogen I.
- e. Protoporphyrin.

73) Crigler-Najjar syndrome, type I is a genetic disorder causes of unconjugated hyperbilirubinemia. what is wrong about it?

- a. The level of unconjugated bilirubin exceeds 20 mg/dl.
- b. Mostly, it causes kemicterus.
- c. The only effective treatment before brain damage is by liver transplantation.
- d. It is due to a mutation in the coding region of UDP glucuronosyltransferase gene.
- e. Heme oxygenase inhibitors can be used to reduce heme production.

74) Which of the following agents used in drug combination regimens to treat testicular carcinoma is most likely to cause nephrotoxicity?

- a. Bleomycin.
- b. Cisplatin.
- c. Etoposide.
- d. Leuprolide.
- e. Vinblastine.

75) One of the following is not commonly associated with massive splenomegaly?

- a. Chronic myeloid leukemia.
- b. Hairy cell leukemia.
- c. Chronic lymphocytic leukemia.
- d. Septicemia.
- e. Malaria.

76) A 15-year-old male patient has suffered from a long history of spontaneous bleeding from mucous membranes without deep muscle hemorrhage. Which of the following is the most sensitive test that the physician should order to help to determine the cause of these findings?

- a. Plasma vWF concentration.
- b. Specific assay for factor IX.
- c. Specific assay for factor VIII.
- d. Specific assay for factor IX or specific assay for factor VIII.
- e. Platelet counts.

77) Neutrophils and monocytes reach an infection site from the blood stream by?

- a. The blood vessels rupture at a site of infection.
- b. Neutrophils and monocytes are amoeboid and can pass through capillary walls.
- c. They are diffuse across membranes just like food and gas molecules.
- d. They move upstream in the lymph system.
- e. T-lymphocyte differentiates into neutrophils at the site of infection.

78) 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.

79) 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.

80) In Wuchereria life cycle which one is incorrect?

- a. Filariform larvae enter the human body during a mosquito bite and migrate to various tissues.
- b. There. directly filariform become mature and produce microfilaria which migrate to lymphatics.
- c. Microfilaria at night, enter the blood circulation.
- d. Mosquitos are infected during a blood meal.
- e. The microfilaria grow 4 to 5 fold in the mosquito in 10 to 14 days and become infective for man.

أنتهى
بالتوفيق لكم جميعاً

