

Microbiology

1) **Yersinia pestis** is a bacterium responsible for plague, which of the followings is TRUE?

- a. Motile.
- b. Spore forming.
- c. Has a safety pin appearance (bipolar staining).
- d. Penicillin is the treatment of choice.
- e. Can not grow at 28°C.

Ans : c

2) **In visceral leishmaniasis** which one is not a manifestation of the disease?

- a. Promastigote is the infective stage.
- b. Inside the macrophages the parasites are multiply as a mastigotes.
- c. Bite reaction is clearly seen.
- d. Sand fly transmit the disease.
- e. Pentostam is the drug of choice.

Ans : c

3) **A patient complained of fever. bradycardia and rose maculopapular rash on his trunk mustmake you suspect?**

- a. Brucella abortus.
- b. Brucella suis.
- c. Salmonella enteritidis.
- d. Salmonella typhimurium.
- e. Salmonella typhi.

Ans : e

4) **According to Elephantiasis:** all of the followings are correct EXCEPT

- a. lymphadenitis and recurrent high fever every 8 to 10 weeks, which lasts 3 to 7 days.
- b. Lymphadenitis and lymphangitis are due to circulating microfilaria.
- c. Protection can be by avoidance of mosquitoes in endemic areas.
- d. Cooler climate reduces symptoms.
- e. Not all infections lead to elephantiasis.

Ans : b

5) **One of the following parasites are acquired through consumption of infected raw or undercooked meat containing oocyst?**

- a. Fasciola hepatica.
- b. Wucherer'a microti.
- c. Plasmodium malariae.
- d. Babesia microti.
- e. Toxoplasma gondii.

Ans : e

6) Epidemic typhus is caused by?

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

Ans : c

7) The characteristic 4 ring form trophozoites are present in the following parasite?

- a. *Leishmania tropica*.
- b. *Entamoeba histolytica*.
- c. *Trypanosoma brucei*.
- d. *Plasmodium malariae*.
- e. *Babesia microti*.

Ans : e

8) Bubonic plague is transmitted by which of the followings?

- a. *Xenopsylla cheopis* flea bite.
- b. Sexually.
- c. Fecally.
- d. Armored mites bite.
- e. African ticks bite.

Ans : a

9) A 19-year-old college freshman has a sore throat, sore and enlarging cervical lymph nodes, and a fever. The student is also greatly fatigued. A diagnosis of infectious mononucleosis is made. The MOST rapid, and clinically useful test to make this diagnosis is?

- a. IgG antibody to viral capsid antigen.
- b. Parvovirus B19 IgM antibodies.
- c. Antibodies to EBV membrane antigen.
- d. Antibody to EBV nuclear antigen.
- e. IgM antibody to viral capsid antigen.

Ans : c

10) 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. They 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.

Ans : b

11) Vector transmitted leishmania diseases?

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

Ans : d

14) 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.

Ans :b

15) 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.

All are true !!

16) 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.

Ans : c

17) 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.

Ans : d

18) Regarding Babesiosis symptoms, one of the following is incorrect?

Select one:

- a. Mild chills and fever.
- b. Hemoiytic anemia.
- c. Jaundice.
- d. Hepatomegaty.

e. Malarial like paroxysm is present.

Ans : e

19) Concerning sleeping sickness, all the followings are correct EXCEPT?

- a. insect is the vector of transmission.
- b. Trypomastigotes multiply in the human blood.
- c. In late stage of infection. there is invasion of CNS and CSF.
- d. Winterbottom sign is characteristic.
- e. Epimastigote (crithidial form) are found in the insect and human.

Ans : e

20) Coxiella burnetii (Q fever) can be characterized by all of the following EXCEPT?

- a. Obligate intracellular parasite.
- b. Humans are dead-end hosts.
- c. Transmitted by vector.
- d. incubation: 2 to 5 weeks.
- e. Aerosol is not a mode of transmission of the disease. XXX

21) In Toxoplasmosis, one is wrong?

- a. The etiologic agent T. gondii is distributed worldwide.
- b. Few of the populations is seropositive. XXX
- c. Threat to immunosuppressed and unborn (pregnant females).
- d. Oocysts contain two sporocysts, each of which encloses four Sporozoites.
- e. Can cause congenital effects.

22) Black Death is caused by?

- a. Brucella suis.
- b. Brucella abortus. XXX
- c. Yersinia pestis.
- d. Francisella tularensis.
- e. Pasteurella multocida.

23) In Toxoplasmosis, one is wrong?

- a. The etiologic agent T. gondii is distributed worldwide.
- b. Few of the populations is seropositive. XXX
- c. Threat to immunosuppressed and unborn (pregnant females).
- d. Oocysts contain two sporocysts, each of which encloses four Sporozoites.
- e. Can cause congenital effects.

2) In enteric fever. the organ lodging maximum number of the organism is?

Select one:

- a. Liver.
- b. Gallbladder. XXX
- c. Kidneys.
- d. Macrophages.

e. Bone marrow.

3) Malarial pattern disease characterized by Renal and CNS involvement no spontaneous recovery and ultimately fatal. Which parasite causes that?

- a. Plasmodium falciparum. XXX
- b. Plasmodium vivax
- c. Plasmodium ovate.
- d. Plasmodium malariae.
- e. Babesia microti.

Histology

1) Which of the following statements concerning lymph nodes is TRUE?

- a. They have Hassall's oorpuscle in their medulla.
- b. Their white pulp contains central arteriole.
- c. T cells predominate in the deep cortex.
- d. They have single crypt.
- e. They don't contain secondary nodules.

Ans : c

2) The blood picture of a patient shows a total leucocytic count 16.000/mm³ and Monocytes 25%this probably goes with the diagnosis of? Physio or histo

- a. Parasitic infection.
- b. Acute bacterial infection.
- c. Bronchial asthma.
- d. Hemodialysis.
- e. Malaria.

Ans : e

3) Site of formation of RBCs in 20 years old healthy male is?

- a. Flat bone.
- b. Center of Long bone.
- 0. Liver.
- d. Yolk sac.
- e. Yellow bone marrow

ans : a

4) in which of the following sites will be abnormal RBCs be removed from the circulation?

- a. Thymic cortex.
- b. Periarterial lymphoid sheath.
- c. Medullary sinuses of lymph nodes.
- d. Thymic medulla.

e. Marginal zone

Ans : E

5) The peak of synthesis of the hemoglobin proteins occurs during the stage of the along the erythropoietic process?

- a. CFU-erythrocytes.
- b. Proerythroblast.
- c. Basophil erythroblast.
- d. Polychromatophil erythroblast.
- e. Normoblast.

Ans : c

6) During granulopoiesis, the appearance of the specific granules in the cytoplasm starts at the stage of?

- a. Myeloblast.
- b. Promyelocytes.
- c. Metamyelocytes.
- d. Myelocytes.
- e. Mature granulocytes

Ans : d

7) Which of the followings is INCORRECT about the thymus?

- a. Divided into lobes and incomplete lobules.
- b. Has afferent and efferent lymphatic's vessels.
- c. The cortex of the lobule has epithelial reticular cells.
- d. The medulla of the lobule has Hassall's corpuscles.
- e. Involuting after puberty.

Ans : b

8) Micropages are leucocytes referring to?

- a. Monocytes.
- b. T-lymphocytes.
- c. Neutrophils.
- d. Natural killer cells.
- e. Mast cell of the blood.

Ans : c

9) The discoid shape of the blood platelets is preserved by?

- a. Actin and myosin in the granulomere.
- b. Spectrin and ankyrin.
- c. Bundles of microtubules in the granulomere.
- d. Open canalicular system.

e. Bundles of microtubules in hyalomere.

Ans : e

10) The antigen for cluster of differentiation present in?

- a. Granular leucocytes.
- b. Different types of lymphocytes.
- c. Glycocalyx of platelets.
- d. Glycocalyx of R805.
- e. Monocytes and macrophages.

Ans : b

11) 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.

Ans : c

12) 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.

Ans : e

13) 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.

Ans : b

14) In the process of hematopoiesis, myeloblasts give rise to_____?

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

Ans : b

15) 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.

Ans : b

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

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

Ans : c

17) 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.

Ans : d

18) The peak of synthesis of the hemoglobin proteins occurs during the stage of the along the erythropoietic process?

- a. CFU-erythrocytes.
- b. Proerythroblast.
- c. Basophil erythroblast.
- d. Polychromatophil erythroblast.
- e. Normoblast.

Ans : c

19) Erythropoiesis involves the following stages of maturation EXCEPT?

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

Ans : b

1) Peyer's patches are?

- a. Located at the antimesenteric intestinal border. **XXX**
- b. Located at the mesenteric intestinal border.
- c. Located midway between the two intestinal borders.
- d. Absent in the duodenum.
- e. T lymphocytes dominate in their germinal centre.

4) Metachromasia -----? histo

- a. Staining of a tissue by the color of the original stain.
- b. Staining of a tissue by a color differs from the original stain **XXX**
- c. Staining of granules of plasma cells by a red color after toluidine blue.
- d. Staining of phagocytic cells by trypan blue.
- e. Staining of granules of eosinophils by a red color after toluidine blue.

5) The specialized cell type involved in the entry of lymphocytes into lymph nodes are called?

- a M-cells.
- b. Mesangial cells.
- c. PALS.
- d. HEV endothelial cells. **XXX**
- e. Selectins.

6) Microphages are Leucocytes referring to?

- a. Monocytes.
- b. T-lymphocytes.
- c. Neutrophils. **XXX**
- d. Natural killer cells.
- e. Mast cell of the blood.

7) in a lymph node, thymus-dependent antigen leads to? Select one:

- a. B- Lymphocyte proliferation in the paracortex.
- b. T- Lymphocyte proliferation in the paracortex. **XXX**
- c. PALS development
- d. Proliferation in cortical lymphoid follicles.
- e. The absence of germinal centers.

2) Erythrocytes Ghost occur in-----?

- a. in hypertonic solution.
- b. in slow circulation.

- c. Defect in hemoglobin.
- d. Hypotonic solution. XXX
- e. increase in size of RBC.

3) The thymus secretes _____?

- a. Antibodies.
- b. Hormones that mature the red blood cells.
- c. Hormones that stimulate macrophages.
- d. lymph and is the main "lymph factory".
- e. Thymosin, a hormone thought to aid in maturation of T- lymphocytes. XXX

Physiology

1) Vitamin K is important for synthesis of which of the following clotting factors?

- a. IV and VIII.
- b. II and VII.
- c. I and IV.
- d. XI and XII.
- e. I and III.

Ans : b

2) Prevention of blood clotting by calcium removal include the following EXCEPT?

- a. Heparin.
- b. Na⁺ oxalate.
- c. Na⁺ citrate.
- d. EDTA.
- e. K⁺ oxalate.

Ans : a

3) Erythropoietin hormone is produced by?

- a. Liver.
- b. Spleen.
- c. Kidney.
- d. Liver and kidney.
- e. Bone marrow.

Ans : d

4) A 21-year-old female. blood type B. Her platelet count is 75,000/ul. She will need blood transfusion before and during surgery. Which of the following blood types would be used to collect platelets that are compatible with the patient?

- a. Type A only.
- b. Type B only.
- c. Type AB only.
- d. Types B and O.
- e. Types A and B.

Ans : d

5) The defensive function of neutrophils is achieved by the following. EXCEPT?

- a. Margination.
- b. Ameboid movement.
- c. Phagocytosing bacteria and killing them by hydrogen peroxide.
- d. Producing fibrinolysis.
- e. Opsonization

Ans : d

6) Agglutinins of ABO system?

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

Ans : c

7) Which of the following is TRUE concerning Erythroblastosis fetalis (hemolytic disease of the newborn)?

- a. it occurs when a Rh+ mother has an Rh- child.
- b. it is prevented by giving the mother a blood transfusion.
- c. A complete blood transfusion after the first birth will prevent HDN.
- d. The father of the child has to be Rh+.
- e. This occurs when a Rh+ mother has an Rh+ child

Ans : d

8) Heparin is characterized by the following. EXCEPT?

- a. It prevents blood coagulation in vivo only.
- b. It is sulfate muco—polysaccharide.
- c. It is formed by mast cells and basophils.
- d. Its antidote is protamine sulphate.
- e. Anti-thrombocytic.

Ans : a

9) The main role of leucocytes is the following?

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

Ans : b

10) 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.

Ans : c

1) Changes that occur in stored blood include?

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

Ans : b

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

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

Ans : b

3) 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+.

Ans : a

4) 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.

Ans : e

5) 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.

Ans : c

6) 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.

Ans : a

7) 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.

Ans : d

8) 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.

Ans : b

9) 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.

Ans : a

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

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

Ans : a

8) A 45-year-old man presents to the emergency department With a 2-week history of diarrhea that has gotten progressively worse during the past several days. He has minimal urine output and is admitted to the hospital for dehydration. His stool specimen is positive for parasitic eggs. Which type of WBC would have an elevated number? Select one: physio

- a. Eosinophils. XXX
- b. Neutrophils.
- c. T lymphocytes.
- d. B lymphocytes.
- e. Monocytes.

9) A CBC of 40ys male shows 20% decrease in Hb and HCT, MCV is very low and PLT elevated than normal. his serum ferritin level was very high? physio

- a. iron deficiency.
- b. Sickle cell anemia.
- c. Aplastic anemia.
- d. Hemolytic anemia.
- e. Anemia Of chronic disease. XXX

10) A man 45-year-old came in for routine examination. His CBC values were Hb 10 g/dl. Hct 28%, reticulocyte 0.3% and MCV 64 fL. Total bilirubin, LDH and haptoglobin were normal. High serum iron and ferritin. What is the most likely explanation for this case? physio

- a. iron deficiency anemia.
- b. Anemia of chronic inflammation.
- c. Thalassemia.
- d. Sideroblastic anemia XXX
- e. Sickle cell disease.

4) Assume that the patient has never had a transfusion. Which of the following will result in a transfusion reaction? physio

- a. Type O Rh- packed cells to an AB Rh+ patient.
- b. Type A Rh+ packed cells to an A Rh- patient.
- c. Type AB Rh+ packed cells to an AB Rh+ patient.
- d. Type A Rh+ packed cells to an O Rh+ patient. XXX
- e. Type O Rh- packed cells to an O Rh+ patient.

5) One of the following pairs between the type of leukocytosis and the cause is incorrectly matched? physio

- a. Burn: Monocytosis. XXX
- b. Brucellosis: Lymphocytosis.
- c. Myeloproliferative disease: Basophilia.
- d. Drug allergy: Eosinophilia.
- e. Acute bacterial infections: Neutrophilia.

11) Woman in her last trimester. Her CBC values are Hb 9g/dl, Hct 31%, reticulocytes 0.3%, MCV 100fL. Her serum Ferritin level was normal? physio

- a. iron deficiency anemia.
- b. B12 deficiency.
- c. Folic acid deficiency. XXX
- d. GIT bleeding.
- e. Anemia of chronic inflammation.

12) Changes that occur in stored blood include? physio

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

13) Adult hemoglobin has chains? physio

- a. 2 alpha, 2 gamma
- b. 2 alpha, 2 beta XXX
- c. 4 alpha
- d. 2 alpha, 2 delta
- e. 4 Beta

6) Five-years-old Child was noted by his new pediatrician to be mildly icteric. His CBC values were Hb 11.5 g/dL, Hct 35%, MCV 92 fL and reticulocytes 5%. Total bilirubin and LDH was high. Haptoglobin was low. What is the most likely explanation for this case?

- a. Hemolytic anemia. XXX
- b. Iron deficiency anemia.
- c. B12 deficiency.
- d. Sideroblastic anemia.
- e. Renal failure.

7) You have given two values (A, B): A: reticulocyte index =3.0%, Hct=15%.B: reticulocyte index =18% and Hct=15%. What is the most explanation for this? physio

- a. A is anemic but B is not.
- b. The bone marrow of both A and B is not working sufficiently.
- c. A and B are normal.
- d. Bone marrow of A is working sufficiently but B is not.
- e. Bone marrow of anemic B is working sufficiently but bone marrow of anemic A is not.XXX

Pathology

1) A 53-year-old woman presents to her primary care physician with complaints of fatigue, loss of appetite, weakness and left upper quadrant abdominal pain. On physical exam her spleen is palpated 8 cm below the left costal margin. A complete blood count (CBC) identifies a total white blood cell (WBC) count of 144,000/microL, predominantly neutrophils, metamyelocytes and myelocytes. Hemoglobin is 11.6 g/dl along with thrombocytosis. Cytogenetic studies detected BCR-ABL fusion gene in these cells. One of the following is incorrect about this disease?

- a. The fusion gene is a result of the balanced translocation t(9;22).
- b. First line of treatment is tyrosine kinase inhibitors like Imatinib.
- c. Splenomegaly is as a result of extensive extramedullary hematopoiesis.
- d. Blasts crisis are 70% of lymphoid origin (Acute lymphoblastic leukemia).
- e. It rarely progresses to spent phase.

Ans : b

2) A 53 year old female patient presented with a suspicious palpable breast mass with a clinical and radiological suspicion of malignancy. The histological examination of a biopsy from the mass confirmed the diagnosis of invasive ductal carcinoma. Mastectomy and axillary lymph nodes dissection was scheduled for this patient. Which of the following findings will you most likely detect in this patient axillary lymph nodes?

- a. Sinus histiocytosis.
- b. Paracortical hyperplasia.
- c. Follicular hyperplasia.
- d. Granulomatous lymphadenitis.
- e. Acute Nonspecific Lymphadenitis.

Ans : a

3) One of the following is not among the morphologic features observed in the bone marrow of patients with primary myelofibrosis?

- a. Diffusely fibrotic.
- b. Erythroid dysplastic changes.

- c. Clustered large megakaryocytes.
- d. Thick irregular bone trabeculae.
- e. Hypocellularity.

Ans : b

4) A 50-year-old man has experienced minor fatigue for the past 7 months. His medical history and physical examination are unremarkable. Laboratory studies show hemoglobin of 11.0 g/dL, MCV of 73 μm^3 , platelet count of 300,000/ mm^3 , and WBC count of 8000/ mm^3 . Which of the following is the most sensitive and cost-effective test that the physician should order to help to determine the cause of these findings?

- a. Serum iron.
- b. Serum transferrin.
- c. Serum ferritin.
- d. Serum haptoglobin.
- e. Hemoglobin electrophoresis.

Ans : c

5) A 43 year old female presented with right chest pain, non-radiating for 2 months duration. Chest CT scan revealed well defined hypodense soft tissue mass involving the fifth rib and the parietal chest wall. Histopathologic examination of the mass revealed an infiltration of mature plasma cells. M protein is absent in the blood, urine is negative for Bence Jones proteins, and the bone marrow biopsy is normal. What is the most likely diagnosis?

- a. Smoldering myeloma.
- b. Solitary Plasmacytoma.
- c. Monoclonal gammopathy of undetermined significance.
- d. Lymphoplasmacytic lymphoma.
- e. Waldenström macroglobulinemia.

Ans : d

6) A 32-year-old female patient who presents with petechial hemorrhages, easy bruising, and mucosal bleeding. Her past medical history was free. Laboratory studies show total RBC count of 4.7 million/ mm^3 , hemoglobin of 13.5 g/dL. Platelet count of 70,000/ mm^3 , and WBC count of 5000/ mm^3 . 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. Mild prolongation of BT and normal PT and PTT.
- d. Prolonged PT and normal BT and PTT.
- e. Mild prolongation of PTT and normal BT and PT.

Ans : c

7) One of the following pairs between the hematopoietic lineage and the dysplastic features that could be observed in myelodysplastic syndrome is wrongly matched?

- a. Erythroid: Nuclear bridging.
- b. Megakaryocyte: Pawn ball cell.
- c. Myeloid: Hypogranulation.
- d. Myeloid: Macrocytosis.
- e. Erythroid: Pseudo-Pelger—Huet cells.

Ans : e

8) A 12-year-old male patient has suffered from a long history of spontaneous bleeding from mucous membranes without any deep muscle hemorrhage. 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 less than 2%.
- d. Prolonged BT, normal PT and PTT and Platelets less than 100,000/mm³.
- e. Prolonged BT and normal PT and PTI'.

Ans : e

11)A 71-year-old man presented with multiple painless masses on the left side of his neck for the past 3 months. On examination he has firm. non-tender. lymph nodes palpable in left posterior cervical region. No splenomegaly or hepatomegaly. Complete blood count is unremarkable. Histopathologic examination of the cervical lymph node shows numerous crowded nodules of small cleaved cells with occasional larger cells with several nucleoli. Which of the following markers will be most likely expressed by these cells?

- a. CD4.
- b. CD5.
- c. CD10.
- d. TdT.
- e. CD30.

Ans : c

12)A 22-year-old woman complained of a 2-year history of arthralgia and her skin was pale. Laboratory studies show total RBC count of 4.7 million/mm³. hemoglobin of 11.5 g/dL. platelet count of 200,000/mm³. and WBC count of 5000/mm³, The peripheral blood smear shows hypochromic and microcytic RBCs. Hemoglobin electrophoresis shows an elevated hemoglobin A₂ level of about 5.8%. What is the most likely diagnosis?

- a. Autoimmune hemolytic anemia.
- b. Beta-Thalassemia minor.
- c. Anemia of chronic disease.
- d. Iron deficiency anemia.

e. Infection with Malaria.

13) One of the following is incorrect about Lymphopenia?

- a. Lymphopenia caused by acute viral infections stems from lymphocyte redistribution.
- b. It is the commonest form of leukopenia.
- c. Associated with rare congenital immunodeficiency diseases.
- d. Observed in advanced human immunodeficiency virus infection.
- e. Caused by high dose corticosteroids.

Ans : b

14) One of the following pairs between the haematopoietic neoplasms and the cytogenetic abnormalities associated with them is wrongly matched?

- a. Acute promyelocytic Leukemia: t(15;17).
- b. Pre—B Acute lymphoblastic leukemia: t(12,21).
- c. Small Lymphocytic Lymphoma: t(9;22).
- d. Follicular lymphoma: t(14;18).
- e. Mantle Cell Lymphoma: t(11;14).

Ans : c

16) Hemophilia is characterized by the following, EXCEPT?

- a. Prolonged prothrombin time.
- b. Prolonged clotting time.
- c. Prolonged activated partial thromboplastin time (APTT).
- d. Decrease clotting factors VIII or XI or IX .
- e. Heamo-arthrosis.

Ans : b

17) A 65-year-old woman was found to have an elevated platelet count of 670 x 10⁹/L during a routine checkup. Bone marrow biopsy revealed an increased number of megakaryocytes with abnormal large forms. No abnormalities in other lineages. One of the following is a characteristic symptom in this disease?

- a. Pancytopenia.
- b. Melena.
- c. Erythromelalgia.
- d. Hematemesis.
- e. Splenomegaly.

Ans : a

18) A 53 year-old female patient, who is diagnosed early with SLE (Systemic lupus erythematosus), presents with symptoms of anemia. Primary clinical evaluation along with CBC (Complete blood count) confirmed that, what is the next proper test to diagnose her anemic subtype?

- a. Serum vitamin B12 concentration.
- b. Serum iron indices.
- c. Coombs test.

- d. Hemoglobin electrophoresis.
- e. Bone marrow examination

Ans : c

24) 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.

Ans : e

25) 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

Ans : c

26) 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.

Ans : b

27) 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.

Ans : e

28) Haemophillia 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.

Ans : d

29) 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. Schistocyte

Ans : c

30) 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.

Ans : b

31) 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).

Myelodysplastic Syndromes (MDS)

32) 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

33) 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.

Ans : e

34) 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.

35) 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.

36) 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

37) 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.

Ans : d

38) 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.

39) 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.

40) 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.

41) 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.

42) A 15-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. The laboratory test showed normal BT and PT while the PTT is prolonged. 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. Plasma vWF concentration and specific assay for factor IX.
- e. Specific assay for factor IX and specific assay for factor VIII.

Ans: c

43) 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.

Ans: a

44) 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. Sick cell anemia patient presented with splenic sequestration.
- d. Acute myeloid leukemia patient.
- e. Patient suffering from aplastic anemia due to chronic NSAIDs use.

45) A 30-year-old man has complained recently of passing dark brown urine. By taking his medical history, he said that he recently had taken antimalarial drug. On the physical examination, he appears pale, afebrile and there is no organomegaly. Laboratory studies revealed that his serum haptoglobin level is decreased. Which of the following is the most likely explanation of these findings?

- a. Oxidative injury to hemoglobin.
- b. Reduced deformability of the RBC membrane.
- c. Increased susceptibility to lysis by complement.
- d. Impaired globin synthesis.
- e. Hemolysis of antibody-coated cells.

Ans : a

8) Howell Jolly bodies are?

- a. Small nuclear remnants in the R.B.C'S in smear characteristic of hereditary spherocytosis. XXX
- b. Reticulocytes characteristic hereditary spherocytosis.
- c. Bone marrow feature of hemolytic anemia.
- d. Small nuclear feature of W.B.C's in the peripheral blood.
- e. A characteristic feature of normoblasts in the bone marrow.

9) Ineffective erythropoiesis is a phenomena occurring in the following disorders?

- a. Hereditary spherocytosis.
- b. Sickle cell anemia.
- c. Beta-thalassemia. XXX
- d. Paroxysmal nocturnal hemoglobinuria.
- e. iron deficiency anemia

10) Iron deficiency anemia can be diagnosed by the followings, EXCEPT?:

- a. Decrease in serum ferritin.
- b. The absence of stainable iron in the bone marrow.
- c. Decrease in serum iron.
- d. Increase in the serum transferrin.
- e. Decrease In TIBC (total iron binding capacity). XXX

11) 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. XXX
- c. Burkitt lymphoma.
- d. Acute lymphocytic leukemia.
- e. Marginal zone lymphoma.

12) A 9-year old girl has had increasing abdominal distention and pain for the past 3 days. An abdominal CT scan shows a large mass involving the small bowel. The

mass was resected and microscopic examination shows sheets of intermediate size lymphocytes, with nuclei several nucleoli and many mitotic figures. Cytogenetic analysis of the cells from the mass shows t(8;14) karyotype. Which of the following is the most likely diagnosis?

- a. Precursor T acute lymphoblastic lymphoma
- b. Precursor B acute lymphoblastic lymphoma
- c. Hodgkin lymphoma.
- d. Marginal zone lymphoma.
- e. Burkitt lymphoma. XXX

13) Haemophilia A is caused by decreased?

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

14) In sepsis or severe inflammation. neutrophil is accompanied by morphologic changes, One of the following is not among these morphological changes?

- a. Prominent cytoplasmic vacuoles.
- b. Sky-blue cytoplasmic puddles.
- c. Dohle bodies.
- d. Russell bodies. XXX
- e. Coarse and dark toxic granules

14) Regarding G-6-P-D anemia, hemolysis occurs due to?

- a. Formation of Heinz bodies. XXX
- b. Biting of R.B.C's by macrophages.
- c. Extracorporeal hemolysis in spleen sinusoids.
- d. Formation of Heinz bodies and attacks by macrophages.
- e. Formation of Heinz bodies. attacks by macrophages and extracorporeal hemolysis.

15) Patients with hemoglobin SC disease?

- a. Never experience sickle cell crisis
- b. Have a different mutation in both beta-globin genes in the same codon. XXX
- c. Exhibit an excess of embryonic ζ -chains in their adult red blood cells.
- d. Frequently die in utero from complications of the hemoglobinopathy.
- e. Could not have a child with sickle cell disease

16) A 27-year-old Man has been experiencing low grade fevers, night sweats, and generalized malaise for 2 months. Physical examination revealed painless cervical lymphadenopathy. A cervical lymph node biopsy is showed occasional CD15+ and CD30+ Reed-Stenberg cells along With large and small lymphocytes and bands of fibrosis. One of the following is INCORRECT regarding his disease?

- a. Reed-Sternberg (RS) cell escapes host immune response by expressing high levels of PD ligands.
- b. In Classic subtypes RS cells fail to express CD20.
- c. Nodular lymphocyte predominant subtype expresses CD30 and CD15.XXX
- d. B symptoms in this patient usually indicate stage III or IV disease.
- e. Nodular sclerosis and mixed cellularity are the two most common types.

17) The hemoglobin level for anemia among pregnant females is?

- a. less than 7 g/dl.
- b. less than 13 g/di.
- c. less than 12 g/dl.
- d. less than 11 g/dl. XXX
- e. less than 10 g/dl.

18) Regarding microangiopathic hemolytic anemias, the followings are correct, EXCEPT? Select one:

- a. Is observed in pathologic states in which small vessels become partially obstructed or narrowed.
- b. May be caused by: disseminated intravascular coagulation (DIC).
- c. May be caused by thrombotic thrombocytopenic purpura.
- d. May be caused by: malignant hypertension.
- e. Produce hemolytic crisis.

19) Thrombotic thrombocytopenic purpura (TTP) is characterized by the followings. EXCEPT? Select one:

- a. Fever.
- b. Thrombocytopenia.
- c. Microangiopathic hemolytic anemia.
- d. Dominance or acute renal failure. XXX
- e. Transient neurological deficit.

20) Which of the following leukemias has the best prognosis among all reaching 80% cure rate? (AML: acute myeloid leukemia)

Select one :

- a. Chronic lymphocytic leukemia.
- b. AML with dysplasia.
- c. AML with the t(15;17). XXX
- d. AML with the t(8;21).
- e. AML with the inv(16).

21) The blood picture of a patient shows a total leucocytic count 16000/mm³ and

Lymphocytes 45% this probably goes with the diagnosis of _____?

Select one:

- a. Parasitic infection.
- b. Acute bacterial infection.
- c. Chronic infection. XXX
- d. Malaria.
- e. Bronchial asthma

Vitamin B12 deficiency: Which statement is FALSE?

Select one:

- a. Develops more quickly in patients with chronic liver disease.
- b. Traps folate in the inactive 5-methyltetrahydrofolate form.
- c. Causes deficiency of methionine but elevates plasma homocysteine level.
- d. Causes megaloblastic erythropoiesis that is partially corrected by folic acid.
- e. If severe, it causes dementia before damaging peripheral somatic nerves. XXX

2) In sickle cell anemia: hemolysis is enhanced by the following events, EXCEPT?

Select one:

- a. Presence of Hemoglobin C (Hb C)
- b. Presence of B-thalassemia.
- c. Severe vomiting and/or diarrhea.
- d. Ascending a mountain
- e. Coexistence of malarial infection. XXX

3) In the most widely used staging system for lymphomas, stage III means?

Select one:

- a. Localized disease, single lymphoid region or single organ.
- b. Two or more lymphoid regions on the same side of the diaphragm.
- c. Two or more lymphoid regions above and below the diaphragm. XXX
- d. Widespread disease with multiple organ involvements.
- e. Patient exhibit 8 symptoms (fever, weight loss, night sweats).

4) Which of the following Myeloproliferative neoplasm(MPN) have the strongest association with tyrosine kinase JAK2 activating mutations? Select one:

- a. Polycythemia vera. XXX
- b. Chronic myelogenous leukemia.
- c. Essential thrombocythemia
- d. Secondary Myelofibrosis.
- e. Primary Myelofibrosis.

22) Which of the following White cells neoplasms is associated with Waldenstrom Macroglobulinemia?



Select one: patho

- a. Sezary syndrome.
- b. Hodgkin Lymphoma.
- c. Multiple myeloma.
- d. Follicular lymphoma.
- e. Lymphoplasmacytic lymphoma. XXX

12) Select one:

- a. It can occur after 6 months of deficiency.
- b. is associated with reduced formation of dTMP.
- c. If severe, it can caused neural tube defects in foetus during pregnancy.
- d. is partially correctable by vitamin B12 administration. XXX
- e. is not associated with neurological damage.

23) An Swear-old boy frequently comes to the clinic for persistent skin infections that do not heal within a normal time frame. He had a normal recovery from the measles. Acheck or his antibodies after immunizations yielded normal antibody responses. A defect in which of the following cells would most likely be the cause of the continual infections? Select one:

- a. B lymphocytes.
- b. Plasma cells.
- c. Neutrophils. XXX
- d. Macrophages.
- e. T lymphocytes

Pharmacology

1) 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.

Ans : d

2) 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

Ans : a

3) Which one of the following is least likely to be a mechanism of cancer cell resistance to antineoplastic drugs?

- a. Change in properties of a target enzyme.
- b. Decreased activity of activating enzymes.
- c. Increase in drug—metabolizing cytochrome P450.
- d. Increase in DNA repair.
- e. Increase in production of drug-trapping Molecules.

Ans : c

4) Concerning WARFARIN, all the following sentences are true EXCEPT?

- a. It is structurally related to vitamin K.
- b. It inhibits synthesis of clotting factors TWO, SEVEN, NINE and TEN.
- c. It has delay onset of action, eight to twelve hours. .
- d. It blocks adenyl cyclase enzyme.
- e. Maximum effect obtained after three to five days.

5) All following are true about immunosuppressants EXCEPT?

- a. Cyclosporine can be given orally or intravenously.
- b. Cyclosporine is more potent than tacrolimus.
- c. Combination of sirolimus and cyclosporine is synergistic.
- d. Mycophenolate is given orally.
- e. Azathioprine is prodrug that is converted to 6-mercaptopurine.

Ans : b

6) One of these paired cytotoxic agents have similar mechanism of action?

- a. Vincristine and paclitaxel.
- b. Etoposide and paclitaxel.
- c. Docetaxel and paclitaxel.
- d. Docetaxel and etoposide.
- e. Vincristine and etoposide.

Ans : c

7) The following are adverse effects of iron sucrose, given IM EXCEPT?

- a. Dizziness and disorientation.
- b. Brown-black staining at IM injection site.
- c. Does not cause hypotension.
- d. Lower incidence of anaphylaxis than IV iron dextran.
- e. Metallic taste in mouth.

Ans : c

8) All the following are indications and clinical uses of HEPARIN EXCEPT?

- a. Treatment of venous thrombosis.
- b. Treatment of MI.
- c. Treatment of pulmonary embolism.
- d. Prophylactic in blood transfusion to prevent clotting.
- e. Treatment of osteoporosis.

Ans : e

9) 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 CD3 antigen.
- e. Basiliximab- IL-2 receptor antagonist

All are true!!!

10) How do antimetabolites exert their cytotoxic effect?

- a. Inhibiting DNA synthesis by sliding between DNA base pairs.
- b. Inhibiting RNA synthesis by sliding between RNA base pairs.
- c. Acting as false metabolites in the microtubules.
- d. Acting as false substitutions in the production of nucleic acids.
- e. Promoting microtubule assembly and Stabilization.

11) 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.

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

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

Ans : d

13) 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

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

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

Ans : c

15) 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.

Ans : c

16) 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.

17) All following are side effects of cyclosporine EXCEPT?

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

7) The purpose of Neoadjuvant chemotherapy is?

- a. Eradicating micrometastatic disease following localized modalities.
- b. Relieving symptom and improving the quality of life in patients with advanced stages of cancer.
- c. Attempting to shrink the tumour size prior to surgery
- d. Is a primary curative modality for leukemias.
- e. Has no effect on relieving symptoms of thyroid cancer.

Ans : c

9) In a patient with diffuse lymphoma, the oncologist suggests a treatment strategy that involves the initial administration of doxorubicin to obtain a significant log— kill, followed by the cell cycle—specific drugs cytarabine and Vincristine. This therapeutic strategy is called?

- a. Pulse therapy.
- b. Recruitment.
- c. Rescue therapy.
- d. Sequential blockade.
- e. Synchrony

Ans : b

Community

1) Anemia occurs at all stages of the life cycle, but is more prevalent in?

- a. School age.
- b. Pregnant women.
- c. Preschool children and pregnant women.
- d. Men (above 15 years).
- e. Non pregnant women.

Ans : c

2) 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.

Ans : d

Anatomy

1) Regarding the thoracic duct: Select the wrong choice?

- a. Lies on the bodies of the inferior seven thoracic vertebrae.
- b. At the level of the T4—T6 vertebrae, the thoracic duct crosses to the left.
- c. It often receives the jugular, subclavian, and bronchomediastinal lymphatic trunks.
- d. Conveys most lymph of the body to the right venous angle.
- e. Originates from the cisterna chyli in the abdomen.

2) The most common organ injured following blunt trauma is?

- a. Liver.
- b. Spleen.
- c. Small bowel.
- d. Large bowel.
- e. Uterus.

Ans : s

3) The most common organ injured following penetrating trauma to the abdomen is?

- a. Liver.
- b. Spleen.
- c. Small bowel.
- d. Large bowel.
- e. Urinary bladder.

Ans : b

4) 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.

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

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

6) 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.
- Infraclavicular (deltopectoral) nodes

Medicine and surgery

1) Microcytic anemia is found in all the following EXCEPT?

- a. Iron deficiency anemia.
- b. Thalassemia trait (minor).
- c. Lead poisoning.
- d. Vitamin B12 deficiency.
- e. Anemia of chronic diseases.

Ans : d

2)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.

Ans : e

تَعَلَّمُوا الْعِلْمَ فَإِنَّ تَعَلُّمَهُ لِلَّهِ خَشِيَّةٌ
"وَوَظَلَّتْهُ عِبَادَةٌ، وَمُذَاكِرَتُهُ تَسْبِيحٌ، وَالْبَحْثُ عَنْهُ جِهَادٌ

• | معاذ بن جبل - رضي الله عنه
لا تنسوننا من صالح الدعاء

