**Biochemistry**

- which of the following is the most common example for polymorphism:
  A. antitrypsin
  B. haptoglobin
  C. ABO system of blood types
  D. Hemoglobin
  **Answer**: C

- lead posing effect which enzyme:
  A. ALA dehydratase
  B. proporphobilinogen synthase
  **Answer**: both correct, this ques was given as bonus

- which of the following is NOT an antiprotease:
  A. antithrombin
  B. Fibrinogen
  C. Thrombin
  D. Plasmin
  **Answer**: B

- iron is added to protoporphyrin IX by which enzyme:
  A. ferrochelatase
  B. ALA synthase
  C. Protoporphyrin synthase
  **Answer**: A

- All of the following are examples of polymorphism except:
  A. alpha antitrypsin
  B. haptoglobin
  C. albumin
  D. ceruloplasmin
  E. immunoglobulins
  **Answer**: C

- In the following diagram, what is the case with the patient:
  A. Nephrotic syndrome
  B. Cirrhosis
  C. inflammation
  **Answer**: C

- when there is decrease in Iron:
  A. IRBP binds iron and cannot interact with the IREs in the TfR mRNA
  B. IRBP is free and can bind to IREs
  **Answer**: B
- which of the following is not a symptom of porphyria:
  A. Coloration of urine
  B. skin disease
  c. Photosensitivity
  d. hemoglobinemia
  **Answer**: D

- Function of Ligandin:
  A. bind with albumin
  b. bind with albumin and transfer glucanoric acid to it
  c. transfer glucanoric acid to bilirubin
  **Answer**: A

- Regarding the disorder of bilirubin metabolism, which is false:
  A. 50% of all nonates have jaundiced during first 5 days
  B. normal unconjugate bilirubin is only 1%
  **Answer**: B

- which of the following isn’t glycosylated:
  A. fibrinogen
  B. albumin
  C. haptoglobin
  D. transferrin
  **Answer**: B

**Anatomy**

- SUPERFICIAL INGINAL LYNPH NODE FOUND IN:
  A. Superior to iliac spine
  B. Inferior to iliac spine
  C. Inferior to inguinal ligament
  D. All of these
  **Answer**: C

- What is the difference between lymphatic vessels and veins:
  A. More valves in lymphatic vessels
  B. Thinner wall in lymphatic vessels
  **Answer**: *both correct, this ques was given as bonus*

- Hassall's corpuscles is found in:
  A. Thymus
  B. Lymph node
  C. Spleen
  **Answer**: A

- White pulp is found in:
  A. Thymus
  B. Lymph node
  C. Spleen
  **Answer**: C
During the period of 3rd trimester, the most important sites for Blood cells formations is/are:

A. Spleen
B. Liver and Bone marrow
C. Liver
D. Bone marrow

**Answer**: B

Which of the following sentence is correct:

a. in the gut there is a collection of lymphoid tissue called gut-associated lymphoid tissue, for the food antigen
b. the spleen is the main site where the plasma migrate and produce antibodies

**Answer**: B

The cisterna chilii:

a) enter the aorta
b) enter the superior vena cava
c) ascends at the left side of the aorta
d) drain the right side of the body
e) drain the left side of the body

**Answer**: E

The second most common leukocyte is:

A. neutrophil
B. lymphocyte
C. monocyte
D. basophil

**Answer**: B

**Physiology**

Female with A get married from male with O, and their son O SO mother genotype is:

A. O
B. A
C. AB
D. AO
E. AA

**Answer**: D

The strongest phagocyte cells:

A. Macrophage and neutrophil
B. Macrophage and eosinophil
C. Lymphocyte and neutrophils

**Answer**: A

Omar Sawas went to Everest mountain for about a week to camp there, he used to live in zarqa for all of his life, what are change/s that will happen:

A. Viscosity decreases
B. Alveolar Po2 increase
C. Hepcidin synthesis will be Reduced
D. Decrease RBC count

**Answer**: Hepcidin Reduced
- Polycythemia will cause all of the following except:
  A. increase cardiac output
  B. increase blood flow
  C. increase viscosity
  **Answer**: B

- which is wrong about ABO system:
  A- there is rapid hemolytic anemia against RH mediate by IG m
  B- in person with TYPE O well develop antibody against A and B
  C - you can transfer blood type A to blood type O
  **Answer**: C

- Failures of blood retraction due to:
  A. Low platelet count
  B. Deficiency in factor XI
  C. Other causes rather than these
  **Answer**: A

- Liver disease lead to:
  A. Prolonged clotting time
  B. Vitamin k deficiency
  C. Two answer correct
  **Answer**: c

which of the following is the incorrect statements:
  a) a little amount of factor 7 is usually active, but it's not functional without tissue factor
  b) tissue factor binds VIIa then activate factor X
  c) factor IX accelerate the activation of factor X
  d) the tissue factor is expressed on the endothelial cell surface
  **Answer**: A (not sure)

**Pathology**

- patient with normal RBC AND WBC count, platelet count 750,000 answer these **2 question**:

1) ) diagnosis is:
   **Answer** Chronic myeloproliferative disorder

2)) We determine cause by
   A. Flow cytometry
   B. Chromosomal studies
   C. Blood smear
   **Answer** b
- 55 OLD man come to you with back pain, you do examination, there is no bone lesion, there is spike in M protein so G level is 1.1 g/dl, there no protein in urine, **answer following question**

1))) The Diagnosis is?
**Answer**: MGUS

2))) YOUR next step?
**Answer**: Tell patient this common disorder, nothing to worry about, come to me after 3 month to see your back

3))) This lesion can progress to
**Answer**: MULTIPLE MYLOMA

- How to differentiate between Hodgkin lymphoma and other types of lymphomas:
**Answer**: reed sternberg cells

- which of the following not correct regarding ITP:
A. it chronic in children
B. occur in female more than male
C. treated by immunoglobulin
**Answer**: A

- Patient (I forget age but I think 45) come to clinic, this patient was known, cause he came to clinic before, we do CBC it was normal RBC and (I think slightly elevate WBC) and platelet count is 70,000, your following step is:
A. Do bleeding time
B. Do peripheral smear
C. Do antiplatelet antibody test
D. Do fibrin aggregation test
**Answer**: C

- The common complication in chronic anemia
A. Pulmonary infarction, edema, deep vein thrombosis
B. Heart failure, liver failure, kidney impairment
**Answer**: may be B

- Large diffuse lymphoma is:
A. Rapidly fatal if left untreated
B. treated by surgical and radiotherapy
C. cure only 5% of patient
**Answer**: A

- Mutation in Hemoglobin in sickle cell anemia:
A. Decrease solubility of hemoglobin in deoxegenated state
B. Decrease solubility of hemoglobin in oxegenated state
C. Increase solubility of hemoglobin in oxegenated state
D. solubility of hemoglobin in deoxegenated state
E. no effect on hemoglobin solubility
**Answer**: A
- which is not correct about hairy cell leukemia:
  A. Occur in adult less than 40
  B. Occurs in female more than male
  C. negative CD 20
  D. all of the above
  **Answer**: A

- patient with CD 10 +, CD 19 +, TdT - , diagnosis is:
  **Answer**: Burkitt leukemia

- Question about translocation & BCL1 & Ig Low grade lymphoma?
  - MALT Lymphoma
  - follicular Lymphoma
  - Small lymphocytic Lymphoma
  - Mantle Lymphoma
  **Answer**: Mantle lymphoma (note that mantle is intermediate, so that this ques was given as bonus)

- The following spleen is associated with:
  A. Megaloblastic anemia
  B. lymphoma
  C. Microcytic anemia
  D. acute malogenous leukemia
  **Answer**: B

- Which of the following is characteristic for immune hemolytic anemia:
  A. splenomgaly
  B. positive DAT
  C. shistocytosis
  D. sphreocytosis
  **Answer**: B

- a patient's serum undergo electrophoresis, there is no Hb A, high Hb F and Hb A2, and there are no other Hb:
  **Answer**: B-thalassemia major

- a case ques about a patient with Ovarian cancer, she got a chemotherapy then after that she had symptoms of another CA, they do the tests, etc. what is the diagnose?
  A. CML
  B. AML
  **Answer**: B
**Pharmacology**

- Which of the following potentiates the effect of oral anticoagulants
  A. Carbamezapine
  B. Co-trimixazole
  **Answer**: B

- How can we minimize resistant in anticancer drug:
  A. Drug combination
  B. Short term therapy
  C. High dose
  D. all are correct
  **Answer**: D

- All are matched correctly regarding a side effect or a mechanism of action, except:
  A. bleomycin ... Mitotic spindle
  B. vincristina … thrombophilites
  **Answer**: A

- Treatment of chronic iron toxicity is done by:
  A. acid base and fluid
  B. oral phosphate or carbonate
  C. venesection
  **Answer**: C

- Pregnant women in the 8th month of pregnancy with IDA, is treated by:
  A. high dose of oral iron
  B. IV iron (dextran)
  **Answer**: B

- Warfarin:
  A. it is a mucopolysaccharide
  B. it is competitively inhibits Epoxide Reductase
  **Answer**: B

- Which of following not correct regarding the compare between LMWH AND heparin:
  A. LMWH is a result from the depolymerization of heparin
  B. LMWH is a dose independent (FOK)
  C. LWHW has shorter half life
  **Answer**: C

- Patient with Renal failure is treated with heparin, suddenly developed thrombocytopenia, the treatment after we stop the drug is:
  A. lepiradin
  B. warfrin
  C. Aragatroban
  **Answer**: C
- Which of the following drugs has no immunosuppressor effect
  Answer: interferon (not sure)

- Tamoxifen is used in the treatment of:
  A. Breast cancer in males
  B. Breast cancer in females
  Answer: B

**Microbiology**

- Which of the following is associated with Cat-scratch?
  a. B. bacilliformis
  b. B. quintata
  c. B. henselae
  Answer: c

- All of the following happen in Chagas disease except:
  A. Romans sign
  B. Cardiomyopathy
  C. Megaloclon
  D. Megoesophagus
  E. Winterbottom’s sign
  Answer: E

- Regarding the P. falciparum, which of the following is correct:
  A. young ring form … Crescent shaped gametocyte
  B. Old ring form … Crescent shaped gametocyte
  C. young ring form … Band shaped gametocyte
  Answer: young ring form … Crescent shaped gametocyte

- Defenitive host for malaria:
  A. Mosquito
  B. Human
  Answer: A

- All of the following correct except:
  A. Rose bengal test… Brucella
  B. Weil-felix … Rickettsia
  C. Paul-bunnel test … Ehlireshlia
  D. Morular … Ehlireshlia
  Answer: C

- Coprofloxacin cause:
  Answer: Tendonitis

- Which of the following drugs is mismatched:
  A. Tularemia … Aminoglycosudes
  B. Sulphonamided … Rikkettsia
  C. Doxycycline… Q fever
  Answer: B
Which of the following is not a result of Q Fever:
A. Hepatitis
B. Meningo-encephalitis
C. Endocarditis
D. Jaudince
E. rash
Answer: E

Which of the following does not require a vector:
A. Salmonnela
B. Coxiella burnetti
Answer: B

Which of the following is the least likely to be recovered from blood culture:
A. salomonella typhi
B. Rikkitesia
C. T.Cruzi
D. T.Bruzi
E. Vibro cholera
Answer: E

Which of the following can happen as long healthy carrier microorganism:
A. salomonella typhi
B. Rikkitesia
C. T.Cruzi
D. T.Bruzi
E. Vibro cholera
Answer: A

Regarding the blood collecting and culture, which of the following is wrong:
A. Select the venepuncture site, clean it with ethanol followed by iodine
B. allow the ample time for drying and do not touch the cleaned area
C. Mix the contents of the bottles gently after inoculation
D. Refrigerate the samples for later use
Answer: D

Tick mediated disease:
A. Bartonella bacilliformis
B. Bartonella quintane
C. Bartonella hensela
D. Babesia
Answer: D

The least prone to tularaemia are:
a. Farmers
b. veterinarians
c. lab workers
d. fisher workers (work with fishes!)
Answer: D
- all of the following are a zoonosis disease except
  Answer: typhoid fever

**Community**

- The U.S recommended daily allowance of iron for menstruating females is:
  a. 18mg
  b. 10mg
  c. 1mg
  Answer: a

- Anemia in U5y-Children in Jordan according to the 2002 study lies between:
  a. 10-20%
  b. 31-35%
  c. .2-5%
  Answer: b

- the percentage of preschool children whom are anemic globally is between:
  A. 51-60%
  B. 41-50%
  C. 31-40%
  D. 21-30%
  Answer: B