KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (MEDICAL LABORATORY)

HML 206: HAEMATOLOGY II

DATE: Wednesday 28th March 2012 **TIME:** 2.00p.m – 4.00p.m

INSTRUCTIONS

Section A: Answer ALL questions (5 marks each)

1. Briefly describe the fibrinolysis process (5mks)
2. Outline the main causes of leucocytosis (5mks)
3. Outline the mechanisms of anaemia (5mks)

Section B: Answer only ONE question (20 marks)

4. a) Anaemia is common in pregnant women. Discuss the laboratory investigation of anaemia (12mks)
   b) Discuss the classification of leukemia (8mks)
5. a) Discuss the clinical features of leukemia (7mks)
   b) Discuss thallassemia and the main causes of leukemia (13marks)

Section C: Answer ALL questions by circling the correct one (½ mark each)

1. What is FDPs in full:-
   a) Fibrin degradation products
   b) Fibrinogen degradation products
   c) Fibrin thrombus degradation products
   d) None of the above
2. In a health person, thrombocytes count is
   a) $150\text{-}400\times10^9$
   b) $140\text{-}450\times10^9$
   c) $100\text{-}400\times10^9$
   d) None of the above
3. Increased destruction of platelets can be due to:-
   a) Infection e.g malaria
   b) Anaemia
   c) Iron deficiency
   d) None of the above
4. Anaemia is present when the Hb concentration falls below_____ in new born
   a) 140g/l
   b) 110g/l

c) 120g/l
d) 13g/l

5. Anaemia is described as mild when the Hb is between:-
   a) 100g/c as the normal level
   b) 70-100g/c
   c) 100-120g/c
6. The following are the main causes of anemia except:-
   a) Malnutrition
   b) Parasitic infection
   c) G6PD deficiency
   d) HIV/AIDS
7. The normal neutrophil count is:-
   a) $1.5\text{-}7.0\times10^9$
   b) $1.5\text{-}4\times10^9$
   c) $2.5\text{-}11\times10^9$
   d) None of the above.
8. What is pancytopenia?
   a) Reduction in platelets
   b) Reduction in neutrophils
   c) Reduction in red blood cells
   d) None of the above
9. What are the causes of bone marrow failure?
   a) Leukemia
   b) Anaemia
   c) HIV
   d) None of the above
10. What are the symptoms of anaemia?
   a) Cardiac failure
   b) Starvation
   c) Paining of bones
   d) Enlargement of spleen
11. What is PCV in full?
   a) Packed corpuscular volume
   b) Packed cell volume
   c) The mean corpuscular volume
   d) None of the above
12. The following are red blood cells inclusion except:-
   a) Normal cryomaxia
   b) Polycromaxia
   c) Hypercromaxia

d) Ronleux

13. Which of the following is abnormal RBC distribution?
    a) Agglutination
    b) Hyocromaxia
    c) Hypercromaxia
    d) None of the above
14. Which of the following is not among coagulation factors?
    a) Christmas factor
    b) Tissue factor
    c) Magnesium ions
    d) None of the above
15. Which of the following is a symptom of leukemia?
    a) Paining of bones
    b) Breathless
    c) Enlargement of the liver
    d) None of the above
16. One of the following is not among the types of polycythaemia
    a) Relative
    b) Primary
    c) Tertiary
    d) Polycromaxia
17. Which are the hematological malignant cells that accumulate in the bone marrow
    a) Red blood cells
    b) Liver cells
    c) Skin cells
    d) White blood cells
18. ALL in full is
    a) Acute hemolytic leukemia
    b) Acute myeloid leukemia
    c) Acute lymphoblastic leukemia
    d) None of the above
19. The following are the causes of leukemia except?
    a) Down syndrome
    b) Environmental effects
    c) HIV
    d) HTLV- 1
20. One of the following is among the test done during investigation of leukemia. Which one is it?
    a) Immunophenotype test
    b) Symptoms of leukemia

c) Exposure to radiations
d) None of the above

21. Significant imbalance in the synthesis of alpha and beta chains of Hb leads to
    a) Inadequate hemoglobin
    b) Leukemia
    c) Aplastic anemia
    d) Hemophilic anemia
22. In hemolytic anemia, the serum plasma appears----------
    a) Red
    b) Pink
    c) Yellow
    d) Green
23. The clinical importance of G6PG deficiency are the following except?
    a) Infection induced jaundice
    b) Parasitic infection
    c) Suck cell disorder
    d) Leukemia
24. In sickle cell anemia, the red cells appear----------
    a) sickle cell shape
    b) Large
    c) Microcyte
    d) None of the above
25. The cause of acquired aplastic anaemia is----------
    a) Viral infection
    b) Acute blood loss
    c) Malnutrition
    d) None of the above
26. The terms thalassemia major, intermediate and minor are used to describe?
    a) The severely of disease
    b) Accumulation of free uncombined globin chains in normoblasts
    c) HbH disease
    d) None of the above
27. Morphologically, anaemia can be classified as the following except?
    a) Macrocytic
    b) Normocytic
    c) Microcytic
    d) Hemolytic anemia
28. An example of immune acquired hemolytic anemia is
    a) Haemolytic blood transfusion reaction
    b) Aplastic anaemia

c) Burns
d) None of the above

29. Red cell fragments are called
    a) Schistocytes
    b) Nucleated RBCs
    c) Spherocyte
    d) None of the above

30. What is the function of FDPs in the fibrinolytic system?
    a) Act as anticoagulants interfering with platelet function and fibrin stabilization
    b) Activate plasminogen
    c) Activate thrombin
    d) None of the above