CHUKA  **UNIVERSITY**

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN NURSING

NURS 222: HAEMATOLOGY

STREAMS: B.Sc Nursing Y2S1 **TIME: 2 HOURS**

DAY/DATE: FRIDAY 8/12/2017 **2.30 P.M - 4.30 P.M.**

INSTRUCTIONS:

- Do not write anything on the question paper.
- Mobile phones and any other reference materials are NOT allowed in the examination room.
- The paper has THREE sections. Answer ALL Questions.
- All your Answers for section I (MCQs) should be on the first page of the answer booklet.
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the Examination answer booklet.

SECTION I:

1. Platelet transfusion should be given:
   A. When the platelet count is less than 20000
   B. When the patient bleeding and the platelet count less than 20000 due to hypoplasia
   C. In cases of drug purpura
   D. In DIC

2. The following cells are of the myeloid cell line **except**
   A. Platelets
   B. T-lymphocyte
   C. Promyelocyte
   D. Monocyte

3. The elliptocyte is prominent morphology in:
   A. Myeloid metaplasia
   B. Hemolytic anemia
   C. Iron deficienty anemia
   D. Sickle cell anemia

4. The blood smear of a patient with a prosthetic heart valve may show:
   A. Target cells
   B. Burr cells
   C. Schistcyte
   D. Elliptocyte

5. Which morphologies would be prominent on a smear of a patient with severe liver disease?
   A. Target cells, macrocytes
   B. Microcytes, elliptocytes
   C. Schistocytes, bite cells
   D. Sickle cell, crystals.

6. In iron deficiency anemia there is characteristically
   A. An atrophic gastritis
   B. A low mean corpuscular volume
   C. A reduced total iron binding capacity
   D. Megaloblastic changes in the bone marrow

7. What are the two major categories of iron deficiency?
   A. Defect in globin synthesis and iron incorporation
   B. Low availability and increased loss of iron
   C. Defective RBC catabolism and recovery of iron
   D. Problems with transport and storage iron

8. Which laboratory test results would be most helpful in distinguishing iron deficiency anemia from anemia of chronic disease?
   A. Decreased MCV, MCH, marked poikilocytosis
   B. Increased MCV, MCH, MCHC, decreased red cell distribution width (RDW)
   C. Increase RDW and Total Iron Binding Capacity (TIBC)
   D. Decreased RDW and TIBC

9. What term refers to the accumulation of excess iron in macrophages?
   A. Sideroblastic anemia
   B. Hemosiderosis
   C. Porphyria
   D. Thalassemia

10. The substance that is present in the urine is increase amounts if extravascular hemolysis is increased but there is no intravascular hemolysis……..
    A. Methemoglobin
    B. Urobilinogen
    C. Hemoglobin
    D. Hemosiderin

11. Which one of the followings is not a characteristic of hemoglobinopathies?
    A. Conditions in which abnormal hemoglobins are synthesized
    B. Result from inherited abnormalities or genetic mutation
    C. All are manifested in clinically significant conditions.
    D. Result in a defect instructional integrity of function of the hemoglobin molecule

12. What factors contribute to the sickling of RBCs?
    A. Increase in PH and oxygenation
    B. Decrease in PH and oxygenation and dehydration
    C. Increase in PH and decrease in oxygenation
    D. Decrease in dehydration and increase in PH and oxygenation

13. Homozygous thalassemia can be confused with iron deficiency because both have:
    A. Decreased serum ferritin
    B. Decreased serum iron
    C. Decreased % transferring saturation
    D. Microcytic, Hypochromic RBC

14. All of the following are clinical manifestations of both b12 deficiency and folate deficiency except:
    A. Anemia and jaundice
    B. Weakness and shortness of breath
    C. Thrombocytopenia and bleeding
    D. Homoglobinuria

15. Which of the following is the best descriptin of chronic lymphocytic leukemia?
    A. A disease which often transforms into ALL
    B. A disease in which immunologically incompetent B-cell accumulate
    C. A disease which is treated with Busulfan for symptoms control
    D. A disease etiologically linked to radiation exposure

16. Lymph node biopsies in Non-Hodgkin Lymphoma show mostly
    A. Many normal cells mixed with a small number of neoplastic cells
    B. Many uniform, similar appearing neoplastic cells
    C. Many Reed-Sternberg cells
    D. Malignant T lymphocytes

17. Which of the following factors is least likely to be depleted in disseminated intravascular coagulatin (DIC)
    A. Factor IX
    B. Factor VIII
    C. Factor V
    D. Factor X

18. The abnormal protein frequently found in the urine of persons with multiple myeloma is:
    A. Albumin
    B. IgM
    C. IgG
    D. Bence Jones

19. The international normalized ratio (INR) is useful for
    A. Determining coagulation reference ranges
    B. Monitoring heparin therapy
    C. Monitoring thrombotic therapy
    D. Monitoring warfarin therapy

20. The coagulation factors that are vitamin K dependent are:
    A. I, V, VIII and XIII
    B. II, VII, IX and X
    C. XII, XI, Prekallikerin
    D. II, VII, IX and XI

21. Concerning multiple myeloma indicate True (T) or False (F) for each statements
    A. _____ 1) Increased plasma cells in the bone marrow
    B. _____ 2) Osteolytic lesion in the bone
    C. _____ 3) Decreased levels of normal immunoglobulins
    D. _____ 4) Light chains are excreted in the urine

22. Concerning thrombembolism, indicate True (T) or False (F) for each of the observations given below
    A. _____ 1) increased level of Protein C
    B. _____ 2) presence of the lupus anticoagulant
    C. _____ 3) increased level of plasminogen activators
    D. _____ 4) hereditary deficiency of anthrombin III

23. Which of the following are causes of monocytosis?
    Typhoid fever
    Parasitic infections
    Acute hemorrhage
    Chronic lymphocytic leukemia (CLL)

24. All of the following describe multiple myeloma, EXCEPT:
A. Malignant plasma cells infiltrate the bone marrow
B. Hypercalcemia
C. Low levels of plasma immunoglobulin
D. Light chains are excreted in the urine

SECTION II [20 MARKS]

1. State five clinical signs of acute lymphocytic leukaemia. [5 Marks]

2. Describe the pathophysiology of polycythemia vera. [5 Marks]

3. Describe five features on microscopic examination of a peripheral blood smear in sickle cell anaemia. [5 Marks]

4. State five predisposing factors to disseminated intravascular coagulation (DIC). [5 Marks]

SECTION III [20 MARKS]

Master K, 8 years old, is diagnosed with hemophilia and admitted to the children's ward

(a) Describe the clinical presentation of hemophilia. [5 Marks]

(b) Describe the medical management of Master K. [5 Marks]

(c) Highlight specific nursing diagnoses and related interventions, describe the nursing management of Master K till discharge. [10 Mark]

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