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CHUKA



UNIVERSITY

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**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF BACHELOR  
OF SCIENCE IN NURSING**

**NURS 222: HEMATOLOGY**

**STREAMS: BSC (NURS)**

**TIME: 3 HOURS**

**DAY/DATE: MONDAY 02/12/2019**

**2.30 P.M. – 5.30 P.M.**

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**INSTRUCTIONS:**

- **Answer all questions**
- **Part I (Choose the most appropriate answer)**
- **Do not write anything on the question paper**

**MULTIPLE CHOICE QUESTIONS (20 MARKS)**

- 1) A transfusion of packed Red blood cells has been infusing for 5 minutes when the client becomes flushed and tachypneic and says, "I am having chills. Please get me a blanket." Which action should you take first?
  - a) Obtain a warm blanket for the client
  - b) Stop the transfusion
  - c) Check the client's oral temperature
  - d) Administer oxygen
  
- 2) A client with iron deficiency anemia is scheduled for discharge. Which instruction about prescribed ferrous gluconate therapy should the nurse include in the teaching plan?
  - a) "Take the medication with a glass of milk."
  - b) "Take the medication on an empty stomach."
  - c) "Take the medication with cereal."

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- d) "Take the medication with an antacid."
- 3) Which of the following assessments in a child with hemophilia would lead the nurse to suspect early hemarthrosis?
- a) Ecchymosis formation around a joint
  - b) Child's reluctance to move a body part
  - c) Cool, pale, clammy extremity
  - d) Instability of a long bone in passive movement
- 4) A client admitted to the hospital with a sickle cell crisis complains of severe abdominal, hip, and knee pain. You observe a fellow nurse accomplishing these client care tasks. Which one requires that you, as the In-charge nurse, to intervene immediately?
- a) The nurse encourages the client to use the ordered analgesic.
  - b) The nurse checks the client's temperature every 2 hours.
  - c) The nurse positions cold packs on the client's knees and hips.
  - d) The nurse places a "No Visitors" sign on the client's door.
- 5) A patient is ordered to receive 2mg of warfarin. Which of these values would prompt the nurse to clarify the medication order?
- a) International normalized ratio (INR) of 1.7
  - b) International normalized ratio (INR) of 3.6
  - c) Activated partial thromboplastin time (aPTT) of 30secs
  - d) Activated partial thromboplastin time (aPTT) of 45secs
- 6) Erythrocyte sedimentation rate may increase in which of the following condition?
- a) Sickle cell disease
  - b) Polycythemia Vera
  - c) Haemoconcentration
  - d) Tuberculosis
- 7) The bleeding time test measures:
- a) Platelet function
  - b) Common pathway
  - c) Intrinsic pathway

- d) Extrinsic pathway
- 8) Which of the following refers to Hemoglobin F?
- a) It is an inactive hemoglobin
  - b) It is resistant to alkaline denaturation
  - c) It has low affinity to oxygen
  - d) It is adult hemoglobin
- 9) Which is the correct statement about Hodgkin disease?
- a) It is characterized by neutrophilia in the early stages of the disease
  - b) Occurs more frequently in females than males
  - c) It is a lymphoma, characterized by Reed-Sternberg cells, and occurs more frequently in females than in males
  - d) It is a lymphoma, characterized by Reed-Sternberg cells, and occurs more frequently in males than in females
- 10) Thalassemias are characterized by:
- a) Defective hemoglobin chain synthesis
  - b) Defective iron synthesis
  - c) Absence or decrease in synthesis of one or more globulin subunits
  - d) Skeletal membrane defects
- 11) A patient with a history of atrial fibrillation is scheduled for a left hip surgery at 9am. The nurse is administering 8am medications. Which of these medication orders should the nurse question?
- a) Beta blocker orally
  - b) Opioid analgesic intravenously
  - c) Low molecular weight heparin anticoagulant subcutaneously
  - d) Cephalosporin antibiotic intravenously
- 12) An acute leukemia can be described as being
- a) Of short duration with many mature leukocyte forms in the peripheral blood
  - b) Of short duration with many immature leukocyte forms in the peripheral blood
  - c) Of short duration with little alteration of the leukocytes of the peripheral blood

- d) Of long duration with many mature leukocyte forms in the peripheral blood
- 13) Sickle cell anemia will occur in:-
- a) Any individual with trace of Hemoglobin S
  - b) Sickle trait only
  - c) Homozygous Hemoglobin S
  - d) Heterozygous Hemoglobin AS
- 14) A decrease in ATP generation is the primary defect responsible for the hemolytic anemia associated with:
- a) Hereditary pyruvate kinase deficiency
  - b) Glucose-6-Phosphate Deficiency
  - c) Hereditary spherocytosis
  - d) Beta Thalassemia major
- 15) Lymphomas may arise from all of the following EXCEPT:
- a) T lymphocytes
  - b) B lymphocytes
  - c) Plasmacell
  - d) Myeloblasts
- 16) All of the following infections have been documented to cause bone marrow failure EXCEPT for:
- a) Parvovirus B19
  - b) Epstein-Barr virus
  - c) Cytomegalovirus
  - d) Rhabdovirus
- 17) The Philadelphia chromosome is LEAST likely to be found in which of the following patients with leukemia?
- a) A 45 year old man with acute lymphocytic leukemia
  - b) A 12 year old girl with chronic myeloid leukemia

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- c) A 30 year old female survivor of the atomic bomb in Hiroshima who presented with an elevated white blood cell count 7 years after the bombing
  - d) A 7 year old boy with acute myeloid leukemia
- 18) All of the following individuals generally need extra iron added to their diet EXCEPT:
- a) Pregnant women
  - b) Adolescent girls
  - c) Men with beta thalassemia minor
  - d) Men with chronic bleeding due to esophageal varices
- 19) All of the following components of the hemostatic system are synthesized in the liver EXCEPT:
- a) Factor V
  - b) Protein C
  - c) Fibrinogen
  - d) Von Willebrand factor
- 20) Which of the following is TRUE of erythrocyte?
- a) It is biconcave disc which is flexible
  - b) It is a biconvex disc which is inflexible
  - c) Has a plasma membrane but no nuclei or organelles
  - d) Has a plasma membrane with nuclei or organelles

### SHORT ANSWER QUESTIONS (40MARKS)

- 21) Differentiate between acute and chronic leukemia (5 marks)
- 22) Explain the non-immunological consequences of immediate hemolytic transfusion reactions (5 marks)
- 23) State five reasons for donor rejection during blood donation (5 marks)
- 24) Outline the causes of acquired hemolytic anemia (5 marks)
- 25) Explain the following indices of erythrocyte measurement (6 marks)
- a) Mean corpuscular volume
  - b) Mean corpuscular hemoglobin
  - c) Mean corpuscular hemoglobin concentration

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- 26) Outline Cotwold's staging of Hodgkin's lymphoma (4 marks)
- 27) Formulate four (4) specific nursing diagnoses in a patient with disseminated intravascular coagulopathy (DIC) (4 marks)
- 28) Giving an example in each case, outline morphological classification of anemia (6 marks)

### LONG ESSAY QUESTION (40MARKS)

- 29) Mr. T is admitted after a diagnosis of chronic leukemia. Further investigation is to be done to classify the condition and guide treatment.
- a) Outline five (5) risks factors of chronic leukemia (5 marks)
- b) Using the nursing process describe the management of Mr. T following admission (15 marks)
- 30) A patient is admitted with features suggestive of anemia. On further investigations Vitamin B12 deficiency anemia is confirmed.
- a) State any three (3) diagnostic studies that may be conducted on the patient (3 marks)
- b) Describe the nursing management of the patient until discharge (12 marks)
- c) Outline five (5) health messages you would share with the patient upon discharge (5 marks)
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