

BRAINWARE UNIVERSITY

Term End Examination 2021 - 22 Programme – Bachelor of Science in Medical Lab Technology Course Name – Basic Hematology Course Code - BMLT204 (Semester II)

Time allotted: 1 Hrs.15 Min. Full Marks: 60 [The figure in the margin indicates full marks.] Group-A (Multiple Choice Type Question) 1 x 60=60 Choose the correct alternative from the following: (1) Which of the following are likely to increase in quantities when the body is under attack from ba cteria? a) Erythrocytes b) Leukocytes d) None of these c) Thrombocytes (2) Most of the volume of normal human blood is composed of: a) Red cells b) Hemoglobin c) Plasma d) White cells (3) Blood is a) Acidic b) Slightly alkaline c) Composed mostly of white blood cells & platelets d) Cooler than body temperature (4) Which single feature of normal RBS's is most responsible for limiting their life span? a) Loss of mitochondria b) Increased flexibility of the cell membrane c) Reduction of Hb iron d) Loss of nucleus (5) When blood clumps or forms visible islands in the still liquid plasma, it is called: a) Clotting b) Agglutination d) None of the above c) Precipitation (6) Which of the following statements is true of antigen-antibody interactions? b) They are used to identify and reject microorganis a) They are used by our bodies only to identify bloo ms, such as viruses and bacteria, that invade our b odies. d) B and C c) They are the way our blood clots when we are ble eding from an open wound. (7) Which blood cells secrets antibody?

b) Monocytes

d) Neutrophils

b) EDTA

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a) Eosinophils

a) Heparin

c) Lymphocytes

(8) What anticoagulants is used for most coagulations tests?

c) Warfarin	d) Apixaban
(9) What are the steps in fibrin formation?	
a) "Tissue factor" or thromboplastin Is released from endothelial wall	b) Contact of blood with collagen
c) Clots bind thromboxane A2	d) A & B
(10) Which of the following factors is present in serum?	
a) Factor IX	b) Fibrinogen
c) Prothrombin	d) Factor VIII
(11) The blood for coagulation studies is collected in trisocatio):	dium citrate in the ratio of (citrate to blood r
a) 1:2	b) 1:4
c) 1:8	d) 1:9
(12) Why can't Heparin be administered orally?	
a) It is large	b) It is negatively charged
c) Both A and B	d) It contains too much Mg++
(13) Which of the following will not coagulate when place	ed separately on four slides?
a) Blood serum	b) Blood plasma
c) Blood from pulmonary vein	d) Blood from lymphatic tissue
(14) What prevents clotting of blood in blood vessels?	
a) Serotonin	b) Fibrinogen
c) Heparin	d) Fibrin
(15) The formation of a blood clot is known as which of the	ne following?
a) Coagulation	b) Chemotaxis
c) Leucopoiesis	d) Erythropoiesis
(16) Anticoagulant used for HbA1c Test is	, •
a) Sodium fluoride	b) Heparin
c) EDTA	d) Sodium citrate
(17) Anticoagulants are also called as	,
a) Blood thinners	b) Blood thickers
c) Vasodilators	d) Blood coagulators
(18) Which Anticoagulant is used for LFT, KFT & Lipid I	,
a) Trisodium Citrate	b) EDTA
c) Heparin	d) No Anticoagulant Required as Serum Specimen is preferred for the given tests
(19) Anticoagulant suitable for storing blood for transfusion	on is
a) Dextrose, phosphate and citrate	b) Glucose, phosphate and oxalate
c) Dextrose, heparin and citrate	d) Dextrose, EDTA and saline
(20) The most common type of protein found in the cell m	embrane is:
a) Lipoprotein	b) Mucoprotein
c) Glycoprotein	d) Nucleoprotein
(21) Platelets are formed from what type of cell?	,
a) Melanocytes	b) Astrocytes
c) Macrophages	d) Megakaryocytes
(22) Where does haematopoiesis take place?	
a) Bone marrow	b) Liver
c) Pancreas	d) Lungs
(23) The most common cause of macrocytosis is	, ·
(25) The most common cause of macrocytosis is	_

a) Alcoholism	b) Iron deficiency
c) Pernicious anemia	d) Hemolytic anemia
(24) The process of platelet production by the bone marro	w
a) Plasma	b) Thrombopoiesis
c) Erythropoiesis	d) Blood from lymphatic tissue
(25) Which of the following primarily concerned with her	mostasis
a) WBC	b) RBC
c) Platelet	d) Lymphocytes
(26) The most frequent cause of needle punctures is:	
a) Patient movement during venipuncture	b) Improper disposal of phlebotomy equipment
 c) Inattention during removal of needle after venipu ncture 	d) Failure to attach needle firmly to tube holder
(27) What is the recommended cleaner for removing all o	il from objective lens?
a) 70% alcohol or Lens cleaner	b) Xylene
c) Water	d) Benzene
(28) In Leishman staining procedure, after the undiluted st mear, waiting for 2 minutes before pouring buffered v	
a) For smear to stain uniformly	b) To clean the background plasma
c) For fixation of smear	d) For staining of smear
(29) All of the following are Romanowsky stains except:	
a) Giemsa stain	b) Leishman stain
c) Hematoxylin stain	d) Field stain
(30) Which of these elements in blood is bound by EDTA	in a collection tube to prevent clotting?
a) Potassium	b) Magnesium
c) Calcium	d) Sodium
(31) The hands of the phlebotomist should be washed	
a) Before inspection collection	b) After specimen collection
c) each time handling of sample	d) All answers are correct
(32) Which of the following red blood cell disorders may	result from life at a higher altitude?
a) Aplastic anemia	b) Sickle cell anemia
c) Pernicious anemia	d) Polycythemia
(33) Major constituent of hemoglobin receives iron from_	
a) Liver	b) Bolus
c) Chyme	d) Lungs
(34) The anemia has been observed in the deficiency of vi	itamin
a) Biotin	b) Inositol
c) Niacin	d) Pantothenic acid
(35) The heme portion of the hemoglobin molecule consist	sts of:
a) A. Porphyrin ring with a molecule of Fe in the ce nter.	b) Four Porphyrin rings with a molecule of Fe in the center.
c) Porphyrin ring with a molecule of Fe in the cente r.	d) Four porphyrin rings, each containing a molecule of Fe in the center
(36) Fetal Hb bind O2 with more affinity than adult Hb, b	ecause
a) Fetal Hb carries γ chain instead of β	b) Fetal Hb carries γ chain instead of α
c) Fetal Hb is bigger in structure	d) None of these
(37) Which test can be used to detect hemolytic anaemia?	
a) Coombs test	b) Genetic test
c) Peripheral blood smear (PBS) Page 3	d) Schilling test

(38) Carboxyhemoglobin is formed by	
a) CO	b) CO2
c) HCO3	d) HCN
(39) Howell-Jolly bodies are seen in:	
a) Tuberculosis	b) Megaloblastic anemia
c) Septicemia	d) Hemophilia
(40) In high altitudes, the hemoglobin value is:	
a) Higher	b) Lower
c) The same	d) Unaltered
(41) In the breakdown of RBCs, bilirubin is:	
a) Reused by new red cells	b) Oxidized to biliverdin
c) Returned to the pool	d) Excereted
(42) An iron protein complex which combines with oxygen	and carbon dioxide is:
a) Hematin	b) Hemosiderin
c) Hemoglobin	d) Oxyhemoglobin
(43) In females, number of red blood cells in one cubic mil	limeter of blood are
a) 1 to 2 million	b) 2 to 3 million
c) 4 to 4.5 million	d) 4.5 to 5.5 million
(44) The precursor of the platelet is:	
a) Meyloblast	b) Megablast
c) Megakaryocyte	d) Plasmablast
(45) The term thrombocytopenia indicates a/an:	
a) Abnormally low number of thrombocytes	b) Abnormally high number of thrombocytes
c) Normal number of platelets	d) Abnormally low total white blood count
(46) What is the normal value of CT?	
a) 2-9 minutes	b) 10-13 minutes
c) 5-8 minutes	d) 3-11 minutes
(47) Total RBC count for women is	
a) 4.4-6	b) 4.2-5
c) 4.0-5.0	d) 4.2-5.2
(48) Sickle cells are also called:	
a) Dacrocytes	b) Burr cells
c) Drepanocytes	d) Spherocytes
(49) Red cell count is carried out by	
a) Electrogram	b) Sphygmomanometer
c) Haemoglobinometer	d) Haemocytometer
(50) High TLC mean:	
a) An increased production of white blood cells to fi ght an infection	b) Immature WBCs & abnormalities
 c) Viral infections that temporarily disrupt the work of bone marrow function 	d) A & B
(51) What is the dilution factor for red blood cells?	
a) 1:300	b) 1:200
c) 1:100	d) 0.0763888888888889
(52) What is the volume of one triple-lined square in haemo	ocytometer (neubauer's chamber)?
a) . 0.02 mm3	b) 0.002 mm3
c) 0.004 mm3	d) 0.04 mm3
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(53) What squares are used when counting red blood cell	s?
a) The corner squares	b) The 3 squares on the left & the 3 squares on the right
c) The middle top square & middle bottom square	d) The middle square
(54) High cost, low volume items requires	
a) No inspection	b) Little inspection
c) 100% inspection	d) Intensive inspection
(55) The percent of the sample means will have value that tribution mean is	at are within ± 3 standard deviations of the dis
a) 95.5	b) 96.7
c) 97.599999999999	d) 99.7
(56) Anticoagulant used for HbA1c Test is:	
a) Sodium fluoride	b) EDTA
c) Heparin	d) Sodium citrate
(57) Platelets are formed from what type of cell:	
a) Melanocytes	b) Macrophages
c) Megakaryocytes	d) Astrocytes
(58) For Karyotyping blood is collected in	
a) Heparin tube	b) Gel tube
c) None of these	d) EDTA tube
(59) Hemoglobin is type of	
a) Glycoprotein	b) Pigment
c) Isoenzymes	d) Allosteric protein
(60) Carboxyhemoglobin formed by	
a) Binding with CH2	b) Binding with Cl
c) Binding with CO	d) Binding with CO2