

## **BRAINWARE UNIVERSITY**

## **Term End Examination 2021 - 22 Programme – Bachelor of Science in Operation Theatre Technology Course Name – Biochemistry** Course Code - BOTT202 (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) Nucleus is separated from cytoplasm by a) nuclear membrane b) nucleoplasm d) cell membrane c) organs (2) Cells which lack nuclear membrane are a) multicells b) eukaryotic cells c) prokaryotic cells d) single cells (3) Cell walls is found in a) plant cells only b) animal cells only c) both (a) and (b) d) none of them (4) The cell transfers the messages. a) Muscle cell b) gastric cell c) neurons d) nephrons

(5) This cell organelle does not contain DNA

a) Nucleus b) Mitochondria

c) Lysosomes d) Chloroplast

(6) A globular molecule which is embedded in the membrane is

a) Integral protein b) globular protein

c) phospho protein d) All of these

(7) Fluid mosaic model was developed by

a) Singer b) Nicoloson c) watson d) both a and b

(8) Which of the following act as barrier to n	nost water soluble substances:
a) Phospholipids	b) Hydrophilic heads
c) Nucleus	d) DNA
(9) Osmosis is a special kind of	
a) Regulation	b) Absorption
c) Diffusion	d) Adsorption
(10) Find the pH of a solution containing an ed	qual volume of 0.1 M NaOH and 0.01 M HCl.
a) 7	b) 2
c) 12.65	d) 1.04
(11) As pKa value increases the acid will be	
a) More weaker	b) More stronger
c) converted to neutral solution	d) converted to basic solution
(12) Normal blood pH	
a) 7.35	b) 6.35
c) 4.25	d) 8.5
(13) When there are no external forces, the sha	ape of a liquid drop is determined by
a) Surface Tension of the liquid	b) The density of the liquid
c) The viscosity of the liquid	d) The temperature of air only
(14) Chitin consists of:	
a) N-acetyl muramic acid	b) N-acetyl glucosamine
c) D-glucose unit	d) N-acetyl muramic acid and N-acetyl glucosamine
(15) Lactulose is disaccharide comprised of:	
a) Glucose & Galactose	b) Galactose & Fructose
c) Sucrose & Fructose	d) Fructose and Maltose
(16) Name a glycosidic antibiotic:	
a) Streptomycin	b) Azithromycin
c) Penicillin	d) Glucovanillin
(17) Which of the following polysaccharide er	nployed for the assessment of kidney function:
a) Albumin	b) Glycogen
c) Keratan sulphate	d) Inulin
(18) Starch consists of:	
a) Amylose and Amylopectin	b) Amylase and amylose
c) Amylopectin only	d) Amylodextrin and Amylose
(19) Which of the following substances would diffusing through the bilayer?	have the most trouble crossing the membrane by
a) Water	b) CO2
c) Oxygen	d) sodium ion
(20) Which type of movement goes from low	to high concentration?
a) active transport	b) diffusion
c) osmosis,	d) facilitated diffusion
(21) What do we call the maximum velocity o	f a fluid in a tube for which the flow remains

streamlined?				
a) Hyper velocity	b) Critical velocity			
c) Stream velocity	d) Laminar velocity			
(22) Which of the following represents Kinem	atic viscosity?			
a) Viscosity/temperature	b) Viscosity/area			
c) Viscosity/density	d) Viscosity/mass			
(23) Which of these amino acids are essential:	for infants?			
a) Methionine	b) Arginine and Histidine			
c) Valine	d) Lysine and Leucine			
(24) Parkinson's Disease is linked with decrea	sed synthesis of:			
a) Dopamine	b) Seratonin			
c) Arginine	d) None of the above			
(25) Which of the following is fibrous amino a	acid:			
a) Chitin	b) Collagen			
c) Tyrosine	d) Pepsin			
(26) Name the amino acid that directly particip	pate in the Heme synthesis			
a) Tryptophan	b) Methionine			
c) Aspartate	d) Glycine			
(27) Which amino acid is related to blood clott	ting			
a) γ carboxy glutamic acid	b) Aspartate			
c) Glutamate	d) Tryptophan			
(28) Biuret test is used for:				
a) Peptide chain identification	b) Phenolic groups identification			
c) aromatic group identification	d) alkyl group identification			
(29) Creatine phosphokinase is related to				
a) Liver diseases	b) early marker of myocardial infarction			
c) Jaundice	d) cancer			
(30) Urea produced in:				
a) Kidney	b) Liver			
c) Pancreas	d) blood stream			
(31) Nucleic acids can be analyzed experiment	tally by their			
a) molecular weight	b) absorption of visible light			
c) absorption of uv light	d) none of these			
(32) The most stabilizing force for nucleic acid	ds is			
a) hydrogen bonds	b) electrostatic bond			
c) Van der Waals	d) conformational entropy			
(33) In gel electrophoresis, what fragments wi	ll move most quickly through a gel?			
a) Large fragments	b) Small fragments			
c) Large genome	d) None of these			
(34) The first person to discover vitamin				
a) Jennar	b) Funk			
c) Mallanby	d) Calvin			

(33) Name the vitamin which functions as normone	as well as visual pigment?			
a) Thiamine	b) Riboflavin			
c) Retinol	d) Folic acid			
(36) Megaloblastic anemia is caused due to deficience	cy of			
a) Cobalamin	b) Pyridoxine			
c) Niacin	d) Folic acid			
(37) Deficiency of which vitamin causes Beri-Beri?				
a) Vitamin B12	b) Vitamin B2			
c) Vitamin B1	d) None of these			
(38) Hemoglobin can be qualitatively detected by:				
a) Benedict's test	b) Neumann's test			
c) Rothera's test	d) Benzidine test			
(39) Beta-thalassemia minor is characterized by	?			
<ul> <li>a) Defective mutation of one of two beta genes of hemoglobin</li> </ul>	b) Increased Hemoglobin A2			
c) Increased Hemoglobin F	d) All of the above			
(40) Process of formation of blood corpuscles is call-	ed			
a) Haemolysis	b) Haemozoin			
c) Haemopoesis	d) Haemoter			
(41) The two main patterns of liver injury are:				
a) Hepatocellular and cholestatic	b) Cholestatic and obstructive			
c) Necrotic and hepatocellular	d) Neoplastic and cholestatic			
(42) Which of the following vitamins is stored in the	e liver?			
a) Vitamin K	b) Vitamin D			
c) Vitamin E	d) All of the above			
(43) Albumin is the most important protein in blood	serum. It is produced by			
a) Heart	b) Lungs			
c) Liver	d) Endocrine glands			
(44) Galactosemia is caused by a deficiency of the enmetabolism.	nzyme responsible for galactose			
a) Galactokinase	b) Galactose 1- phosphate Uridyl transferase			
c) UDP-4- Epimerase	d) Galactose dehydrogenase			
(45) What is the cause for 'Wernicke-Korsakoff' syn	ndrome?			
a) high-calorie intake from carbohydrate	b) high intake of energy from alcohol			
c) high intake of fat for energy	d) high intake of protein for energy			
(46) Which of the following marker is used for the d jaundice'?	lifferential diagnosis of 'obstructive			
a) Lactate dehydrogenase	b) Creatine Kinase			
c) Carbonic anhydrase	d) 5'- Nucleotidase			
(47) Late-stage chronic liver disease is called				
a) Cirrhosis	b) Liver failure			
c) Liver Cancer	d) All of these			

quantification of the presence of in a sa	1 0			
a) Amino acid	b) DNA			
c) Antigen	d) Protein			
(49) What is the role of goat anti-rabbit IgG horseradi experiment?	ish peroxidase conjugate in the			
a) Antigen	b) Primary antibody			
c) Secondary antibody	d) Substrate			
(50) Which is not application of ELISA?				
a) Detection of hepatitis B markers im serum	b) Percentage of Hb in blood			
c) Detection of HIV antibodies in blood sample	d) Detection of mycobacterium antibodies in tuberculosis			
(51) A change in sequence is called				
a) Mutation	b) Mutagen			
c) Alteration	d) Removal			
(52) Involvment of virus in the etiology of cancer was	s first reported by			
a) Rous	b) Dr. Watson			
c) Dr. Mario Capecchi	d) Linus paouli			
(53) Keratin is a				
a) Nucleoprotein	b) fibrous protein			
c) Metalloprotein	d) Glycoprotein			
(54) Name a sulfer containing amino acid				
a) Methionine	b) Arginine			
c) Glycine	d) Tyrosine			
(55) Which of the following mineral is involved in pr	otein metabolism and oxidation reactions?			
a) Molybdenum	b) Manganese			
c) Magnesium	d) calcium			
(56) Consumption of which nutrient leads to the mult	iplication of oral bacteria?			
a) Fat	b) Carbohydrate			
c) Protein	d) Fluoride			
(57) Which group is most often affected with copper	deficiency?			
a) Elderly woman	b) Alcoholics			
c) Active toddlers with limited	d) Preterm infants food variety			
(58) The mineral which aids in the utilization of iron	and in hemoglobin synthesis is			
a) calcium	b) phosphorus			
c) cobalt	d) copper			
(59) Wilson's disease is an example of and	nd Menkes' syndrome is an example of			
a) zinc deficiency; zinc toxicity	b) zinc toxicity; zinc deficiency			
c) copper deficiency; copper toxicity	d) copper toxicity; copper deficiency			
(60) An endemic disease of cardiomyopathy in childr	en is attributed to			
a) low Se in the environment	b) low intake of iron			
c) high Se in the environment	d) high intake of iron			

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