



## **BRAINWARE UNIVERSITY**

## Term End Examination 2022 Programme – DMLT-2021/DMLT-2022 Course Name – Clinical Biochemistry Course Code - DMLT104 ( Semester I )

Full Marks: 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## Group-A

(Multiple Choice Type Question) 1 x 15=15

1. Choose the correct alternative from the following: (i) Select correct option-Which of the following is not the characteristic of ion selective electrodes? a) It is fragile b) Easy to use c) Available in different sizes and shapes d) It is insensitive to many ions (ii) Select correct optionIn liquid membrane electrode, the liquid ion exchanger is held in a porous disc of a) Solid material b) Semi-permeable membrane c) Hydrophobic material d) Water absorbing material (iii) Identify correct optionIn recent liquid membrane electrodes, the porous liquid membrane is replaced with which of the following? a) Polyvinyl chloride b) Polyacryl chloride c) Polyester membrane d) Polyacryl amide (iv) Select the correct option-In the equation, A =Â ebc, what quantity is represented by "e" ? a) Absorbtivity b) Molar absorbtivity c) Path length d) Dimeter (v) Select the correct option-Fingerstick or fingerprick sampling minly use for a) large blood sampling time b) very small blood sampling time c) baby blood sampling d) b&c (vi) Select the correct option-The fUll form of EDTA a) ethanol diamine tryacctic acid b) Ethylenediamine tetraacetic acid d) ethylenediamin tryacetic acid c) ethendiamin tetraacetic acid (vii) Identify correct option refrigerated sample transportation always maintain the temperature at

b) 22°C

d) none of these

b) high-efficiency particulate absorbing

a) room temperature

(viii) Choose correct option-Abbreviation of HEPA filter

a) high equilibrium performing filter

c) 2-8°C

(ix)	c) high-efficiency particular absorbance Choose correct option-HEPA is also able to capt are	igh-efficiency particular absorbance d) none of these oose correct option-HEPA is also able to capture some viruses and bacteria which		
(x)	a) 0.01 $\mu m$ c) 0.3 $\mu m$ Select the correct option- The three factors that electrolyte are:	b) 0.03 μm d) 0.05 μm it control the conductivity of an		
	a) Specific gravity, density, and volume	b) Concentrations, the material in sol and temperature	ution,	
	c) Color index, turbidity, and temperature	d) Hydrogen on concentration, temperand pressure	erature,	
(xi)	Select the correct option- Which of the following burner used in Flame photometry?	•		
	a) Noiseless	b) Stable flame for analysis		
	c) Efficient tomization of sample	<ul> <li>d) sample containing two or more sol can burned efficiently</li> </ul>	vents	
(xii)	Choose correct option What do hot air ovens u	se to sterilize equipment and materials	5?	
	a) Convection	b) Insolation		
(xiii)	c) Conduction  Choose correct option What is the common ter	d) heated shelves  mperature used in autoclaves?		
,	a) 109 degree	b) 121 degree		
	c) 150 degree	d) 100degree		
(xiv)	Write the correct option-What is the principle of	_		
(xv)	<ul><li>a) Size reduction principle</li><li>c) Evaporation principle</li><li>Write the correct option-What are factors that</li></ul>	<ul><li>b) Filtration principle</li><li>d) Sedimentation principle</li><li>affect high-speed centrifuges?</li></ul>		
	<ul><li>a) Pressure and temperature</li><li>c) Speed and temperature</li></ul>	<ul><li>b) Concentration and speed</li><li>d) Pressure and speed</li></ul>		
	<b>Gro</b> u (Short Answer Ty	-	3 x 5=15	
2. Compare the Lewis concept of pH and Arrhenius concept of pH 3. Osmolarity is an important physical phenomenon which have major role in biological				
	stem- explain with proper example iscuss the Importance of pH in biochemical test		(3)	
	rite the procedure of faeces sample collection		(3)	
5. Justified the acid dissociation constant play an important role in pH scale.  OR			(3)	
W	rite the limitation of Arrhenius theory.		(3)	
	Grou	ір-С		
	(Long Answer Ty	pe Questions)	5 x 6=30	
7. :	State that, the water behave like as an "ampholy	rte".	(5)	
	Define the principle of autoanalyzer		(5)	
	Write the procedure of urine sample collection		(5)	
	Explain the principle of vacutainer		(5)	
	Write down the working principle of hot air over		(5)	
12	Justify the importance of beer-Lamberts law in c <b>O</b> l		(5)	
(	Classify the different type of autoanalyzer	<del></del>	(5)	

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