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## SARDAR PATEL UNIVERSITY

## S.Y.B. Sc. Semester- III (Under CBCS)

<b>.</b>	US03CBCH02 -BIOPHYSICAL AND	ENVIRONMENTAL BIOCHEMISTRY
	e:28/11/19,7hyosday	Marks: 70
	:2:00 to 5:00 PM elect the Right Answer	[10]
1.	The most important buffer system regu	lating blood pH is
	a) Bicarbonate buffer	c) Protein buffer
	b) Phosphate buffer	d) None of the above
2.	Excretion of water is regulated by	hormone.
	a) Aldosterone	c) Vasopressin
	b) ADH	d) b and c both
3.	The H-O-H bond angle in water molecu	•
	a) 104	c) 105
	b) 104.5	d) 105.5
4.	Light scattering in colloid system is kno	•
	a) Brownian movement	c) Coagulation
	b) Tyndale effect	d) Dialysis
5.	The movement of solute molecules from	
	concentration is called as	
	a) Osmosis	c) Viscosity
	b) Diffusion	d) Surface tension
6.	The technique electrophoresis for the s	
	developed by	
	a) Tswett	c) Tiselius
	b) Svedberg	d) Sanger
7.	Fixed angle rotor has holes at an angle	betweendegrees.
•	a) 0-14	c). 40-60
	b) 14-40	d). 90-120
8.	Chronic exposure to Mercury poisoning	
	a) Minamata	c) Black foot
	b) Kidney stone	d) none of the above
9.		tioning immediately in Cyanide poisoning?
	a) Digestive	c) Excretory
	b) Respiratory	d) Endocrine
10.	Plumbism is caused due to	
	a) Mercury	c) Cyanide
	b) Lead	d) Cadmium

(P.T.O.)

Q-2 A	Answ	er the following in brief (Any Ten)	*	[20]							
•	· 1) I	Define: Buffer and give its importance.	A Section 1	[20]							
	2) I	Explain water is dipolar.		•							
		What is dehydration and over hydration?									
	4) Differentiate between Lyophilic colloids and Lyophobic colloids.										
		What are protective colloids?									
		Explain the term: Dialysis,		ı							
	<ul><li>7) Write down the basic principle of electrophoresis.</li><li>8) Explain: Desk top centrifuge.</li></ul>										
		Enlist factors affecting electrophoretic mobility.	•								
		Vrite down poisonous effect of cyanide									
		What are the Remedial measures for Mercury poisoning?	ı								
	12)V	Vrite sources and types of Arsenic compounds.	•								
			•								
Q-3	A	Explain structure of water molecule.			[06]						
•	В	Explain the role of Aldosterone.			[04]						
		OR			[U4]						
		Write a detail note on Physiological buffer systems	of human bo	dv	[10]						
Q-4	Α	Define and give significance of Osmosis.	or irdinan bo	uy.	_						
~ ·	В	Give biological significance of colloids.		1.	[06]						
	1.)				[04]						
	Λ	OR		.*							
	A	Discuss the phenomenon of Donnan membrane equilibrium & Write its significance.									
	В	Discuss the following properties of Colloids (a) Electrical properties (b) Sol & Gel									
Q-5	Α	Discuss the types of rotors used in a centrifuge wi	th suitable dia	igram.	[06]						
	В	Give basic principle of centrifugation and derive ec	quation for RC	F.	[04]						
		OR	-								
•	Α	Give a detail note on Paper electrophoresis.			[06]						
	В	Differentiate between Free electrophoresis and Zo	ne electropho	resis.	[04]						
0.0					L1						
Q-6		Discuss sources, biochemical effects and remedy	of Mercury o	n human	[10]						
		body. OR									
		UK	•	•							
	Α	Explain Biochemical effects of Cyanide in man.			[06]						
	В	How Arsenic poisoning can be treated? Explain.			[04]						
		V -									