A-24 SEAT No.

No. of Printed Pages: 2

SARDAR PATEL UNIVERSITY

S.Y. B.Sc.

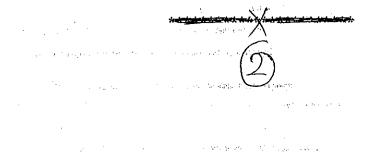
III Semester Examination-2018 Saturday, 24th November 02.00 p.m. to 05.00 p.m. Basic Biochemistry: US03CBCH01

(2010 BATCH)

Total Marks: 70

Q1. Choose the correct optio	on and write in the answ	wer sheet:	[10]
1) Which of these is a not	n reducing sugar?	• • • •	
a) Glucose	b) Maltose	e) Sicrose	d) Fructose
2) Which of these is a her	kose sugar?		
a) Glyceraldehyde	b) Fructose	c) Ribose	d) Lactose
3) The bond that joins the	monosaccharides is		,
a) Hydrogen bond	b) Ester bond	c) Glycosidic bond	d) Peptide bond
4) Which of these amino	acid does not have a ch	iral carbon?	, ,
a) Glycine	b) Leucine	c) Serine	d) Alanine
5) Which of these is a bas	sic amino acid?		
a) Lysine	b) Leucine	c) Valine	d) Proline
6) A nucleoside is a comb	oination of nitrogenous b	pase and :	
a) Phosphate	b) Pentose sugar		d) Amino acid
7) Which of these bonds j			fDNA.
a) Peptide bond	b) Phos	phodiester bond	
c) Disulphide bond	d) Hydr	ogen bond	
8) Cynocobalamine is the	chemical name of	•	-
a) Vitamin B ₁	b) Vitamin B ₁₂	c) Vitamin B ₂	d) Vitamin B ₅
The mineral not require	ed for acid-base balance	is :	• •
a) Manganese	b) Chlorine	c) Sadium	d) Potassium
10) Which of these mineral	s is essential for bone d	evelopment?	
a) Sodium	b) Potassium	c) Iron	d) Calcium
•	•	•	•
O2 Angrees the fellowing (
Q2. Answer the following (ar1) Define: (i) Chiral carbo	ly slx): — zwo barracije i di. n. (ii) Enimora	and the state of t	[12]
2) Draw structure of (i) α -1	n (n) Epinicis D Glucopyranoca (d) D	alzonaldobrido	
3) What are essential amin	o acids?	-gryceraldenyde	
4) Draw structure of AMP and dCMP			
5) Write a short note on pe		ucleic acids.	
6) Define: (i) Enthalpy (i	i) Entropy		
7) Write biochemical func	tions of Vitamin B ₁	See Summer .	. •
8) Write sources and RDA	of Iron.	74	
		d_{ω}^{2}	(D.I.V.)
	(1)		(P.10)

Q3. (a) Discuss classification of carbohydrates.(b) Write a note on osazone formation.	
Q3. (a) Write a short note on maltose.	[04]
(b) Explain mutarotation in carbohydrates.	[04]
Q4. (a) Write a note on amphoteric nature and isoelectric pH of amino acids.	[04]
(b) Discuss reaction of ninhydrin with amino-acids. OR	[04]
Q4. (a) Draw titration curve of glycine and briefly discuss it.	[04]
(b) Draw structure of: Alanine, Histidine, Proline, Trptophan.	[04]
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Q5. (a) Discuss structure and types of vitamin K.	[04]
(b) Explain role of Niacin as co-enzyme.	[04]
OR	.* -
Q5. (a) Discuss structure of vitamin D.	[04]
(b) Write sources and biochemical functions of Thiamine.	[04]
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Q6. (a) Discuss role of ATP in cell bioenergetics.	[04]
(b) Write about effects of insulin on carbohydrate metabolism.	[04]
OR	[40]
Q6. (a) Write a note on oxidation of fats.	[04]
(b) Discuss metabolic effects of glucagon.	[04]
(2) = 130,720 1310,00010 0110010 011 0110010	£ J
O7 (a) White a note on my inc nitrogenous bases	[04]
Q7. (a) Write a note on purine nitrogenous bases. (b) Discover formation of phosphodiaster hand	[04]
(b) Discuss formation of phosphodiester bond.	[O4]
OK .	
Q7. (a) Discuss double helical structure of DNA.	[04]
(b) Write a short note on nucleosome concept.	[04]
Q8. (a) Give classification of minerals with examples.	[04]
(b) Discuss sources and biochemical functions of sodium.	[04]
OR	10.1
Q8. (a) Write a note on biochemical functions of calcium.	[04]
(b) Discuss sources and biochemical functions of iodine.	[04]



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