Total No. of printed pages = 4							23/08/22		
BP 203 T							BINACHOWDHURY CENTRAL LIBERT & SIPS)		
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		NADR	-V xulqua	0 1	17 17	ALL THE	Vi signio	(0)	
				2	022	or and			
		B.Phari	m. 2 <sup>nd</sup> Sei	mester	End-	Term l	Examination		
		Birth Harris	В	осн	EMIST	RY			
		Some of the	0	New Re	ogulat	ion	Endoplasmic rather		
	T CATALOGUE		(1)	iew Ite	eguiai	1011)		WINEY - CH	
Ful	l Marks – '	75					Time – I	'hree hours	
	nginis mir nyana	The i		the ma			full marks	(b) (H(lim)	
1.	Answer a	all questions	s:				IDVANT L	$20 \times 1 = 20$ )	
		ich type of ditions of se			is ut	ilized	for generating glu	cose under	
	(a)	Glycogen					animatica Situad da	dW (ti)	
	(b)	Fats					HOLD THE THE	GU).	
	(c)	Starch					THE RESERVE TO SERVE THE S		
	(d)	Amino aci	· ·						
	(ii) Bloo	cking of enz	yme action	n by blo	ocking	its acti	ive site is	7(T (2)	
	(a)	Allosteric					All and a second of		
	(b)	Feedback	inhibition				This omerstall		
	(c)	Competiti	ve inhibiti	ion			All of the above		
	(d)	Non-comp	etitive inh	ibition	lexe o		ob one of the followin Clumpse		
	(iii) Osa	zone format	tion is sho	wn by					
	(a)	Reducing	sugars				PATRICIA STATEMENTS	all (in)	
	(b)	Non reduc	ing sugar	s			Others a metal	(6)	
23.4	(c)	Both (a) as	nd (b)				Alwaysa protein." Often a vitamin	(0)	
	(d)	None of th	ne above		berton		Always an inorgani	(5) ×	

[Turn over

(iv) En	zymes specialized in cleavage of	f bon	d the state of the
(a)	Lyases	(b)	Ligases
(c)	Hydrolases	(d)	Isomerases
(v) Fol	llowing complex of ETC is respo	nsibl	e for ATP synthesis
(a)	Complex II	(b)	Complex III
(c)	Complex IV	(d)	Complex V
(vi) β o	xidation of Lipids occur in		
(a)	Cell membrane		
(b)	Cytosol		Paris Fig. Strang 9.11
(c)	Mitochondria		
(d)	Endoplasmic reticulum		
(vii)Th	e major site for Cholesterol bios	ynth	esis is
(a)	Brain		oll Marks - 75
(b)	Kidney		
(c)	Liver		
(d)	Lungs		and processored and the second
(viii)Hy	perbilirubinaemia is condition	with	serum Bilirubin level of greater than
(a)	0.05 mg/dL		
(b)	0.1 mg/dL		Absorbed II questo de
(c)	0.5 mg/dL		the Which to ope of methodie h
(d)	1 mg/dL		Blaty as to boyon la enorgiación.
(ix) Wh	ich of the following functions as	tern	nination codon or stop codon
(a)	AUG		
(b)	UGG		
(c)	UGA		domail (n)
(d)	UGU		bios onumA (b)
(x) The	following is a non-protein amir	no ac	
(a)	Ornithine -		
(b)	Homocysteine		(a) Allosteere Inhibition
(c)	Histamine		
(d)	All of the above		nogradidai evintegmo) (5)
(xi) Wh	ich one of the following is an ex	ampl	e of Ketose sugar?
(a)	Glucose	(b)	Fructose
(c)	Mannose	(d)	Galactose Galact
(xii) Th	e coenzyme is		ensure antiqued (a)
(a)	Often a metal		(b) Non-redbatting sittems
(b)	Always a protein		
(c)	Often a vitamin		(d) Both (s) and (e)
(d)	Always an inorganic compoun	d	svods ad the anox (b)

	osphate		n important product of the pentose
	thway?		
(a)	NAD+	(b)	NADP+
(c)	NADH	(d)	NADPH
(xiv)In	which organism does glyco	lysis occu	rs? I am la ambantamb
(a)	Aerobic organisms only		nd to midentisanti (I) II- (II)
(b)	Anaerobic organisms onl	У	Toronto and the second
(c)	Both Aerobic and anaero	bic organi	sms val aus = od t awou stre M +(o)
(d)	None of the above		significance.
(xv)Ma	lonyl-CoA, ACP, and NAD	PH are inv	volved in
(a)	$\beta$ - oxidation		
(b)	Glycolysis	(B, 96) of	W Yaddood agested with the highest
(c)	Gluconeogenesis		and the second s
(d)	Fatty acid biosynthesis		and of the state o
(xvi)Wł			ng enzyme of Gluconeogenesis?
(a)	Hexokinase		
(b)	Phosphofructokinase		(c) Schematically represent the
(c)	Pyruvate carboxylase		(d) Derive the Michaelia Mintal
(d)	Pyruvate Kinase		
(xvii) G	lucose has nos	s. of isome	rs war als troughts of postpal A
(a)	6	(b)	12
(c)	24	(d)	16 and the dames of hird (b)
(xviii)A	TP is a		(a) Write a short note on Larvan
(a)	Nucleoside	and the second	The second secon
(b)	Nucleotide	ATTENDED OF THE PARTY.	- (ii) Write A nor On Cron & this an
(c)	Both		In a second mater than the second of the sec
(d)	None of the above		acutorod rings 10
(xix)To	form the Osazone Glucose	react with	
(a)	Salicylic acid		
(b)	Phenyl hydrazine		
(c)	Phthalic acid		
(d)	None of the above		
(xx)Whi	ich enzyme is responsible f	for convers	ion of Pyruvate to Lactate
(a)	Pyruvate Kinase		
(b)	Lactate dehydrogenase		
(c)	Enolase		
(d)	Hexokinase		

2. Long answers (Answer 2 out of 3)

 $(2 \times 10 = 20)$ 

(a) Schematically represent Glycolysis cycle. Write down the energetics involved in Glycolysis and mention its significance. (6+3+1=10)

(b) Write short note on:

(5+5=10)

- (i) Classification of Amino acids
- (ii) IUB classification of Enzymes
- (c) Write down the steps involved in  $\beta$  oxidation of fatty acids and mention its significance.
- 3. Short answers (Answer 7 out of 9)

 $(7 \times 5 = 35)$ 

- (a) What are ketone bodies? Write the Synthesis involved in the formation of ketone bodies. (1+4=5)
- (b) What is Hexose Monophosphate Shunt? Explain the reactions of HMP shunt. (1+4=5)
- (c) Schematically represent the TCA cycle.
- (d) Derive the Michaelis Menten equation for substrate-enzyme concentration.
- (e) What is oxidative phosphorylation? Explain the different components of Electron Transport chain with ATP generation sites. (1+4=5)
- (f) Briefly describe the biosynthesis of RNA.
- (g) Write a short note on Enzyme inhibition.
- (h) Write a note on Urea cycle and its significance
- (i) Write short notes on:

(2.5+2.5=5)

- (i) Phenylketonuria
- (ii) Gluconeogenesis.