Total No. of Questions: 3 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Pharmacy

End Sem (Even) Examination May-2022

PY3CO07 Biochemistry

Programme: B. Pharma. Branch/Specialisation: Pharmacy

Duration: 3 Hrs. **Maximum Marks: 75**

Note: All questions are compulsory. Internal choices, if any, are indicated.

Q.1	i.	Define carbohydrates with its composition.	**2**
	ii.	Draw the structure of ATP.	**2**
	iii.	Write the reaction of Glycolysis.	**2**
	iv.	List the name of reaction of the pathway in gluconeogenesis.	**2**
	v.	Enlist any two important body lipids.	**2**
	vi.	Enlist any two salient features of transamination.	**2**
	vii.	Enlist any two functions of DNA.	**2**
	viii.	Draw the structure of RNA.	**2**
	ix.	Define Enzymes.	**2**
	x.	Enlist any four names of Enzymes.	**2**

Q.2		Attempt any two:	
	i.	Explain the various types of bioenergetic process with a note on bioenergetic relationship between Enthalpy, Entropy and free energy.	**10**
	ii.	Explain in detail about glycolysis.	**10**
	iii.	(a) Give an exhaustive note on Biomolecules.	**5**
		(b) Write an Exhaustive note on TCA Cycle.	**5**

Q.3 Attempt any seven: Two questions from each section is compulsory.

Section - A

	i.	Write an exhaustive note on Formation and utilization of ketone bodies.	**5**
	ii.	Write an exhaustive note on β-Oxidation of saturated fatty acid.	**5**
	iii.	Explain in brief about transamination & deamination.	**5**

P.T.O.

Section - B

	iv.	Explain in brief about transcription.	**5**
	v.	Write an exhaustive note on Translation process.	**5**
	vi.	Give the structure of DNA with their functions.	**5**

Section - C

	vii.	Classify enzymes on the basis of IUB.	**5**
	viii.	Write an exhaustive note on factors affecting enzyme activity.	**5**
	ix.	Explain enzyme inhibition.	**5**

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Marking Scheme PY3CO07 Biochemistry

Q.1	i.	Definition	1 Mark	**2**
		Components(three)	1 Mark	
	ii.	Structure	2 Marks	**2**
	iii.	Name of 3 reaction	2 Marks	**2**
	iv.	2 reaction	1 Mark each (1 Mark*2)	**2**
	v.	Any two lipids.	1 Mark each (1 Mark*2)	**2**
	vi.	Any two features	1 Mark each (1 Mark*2)	**2**
	vii.	Any two functions	1 Mark each (1 Mark*2)	**2**
	viii.	Structure	2 Marks	**2**
	ix.	Definition	2 Marks	**2**
	x.	Any four Enzymes.	0.5 Mark each (0.5 Mark*4)	**2**
Q.2		Attempt any two:		
	i.	3 types of bioenergetic process	2 Marks each (2 Marks*3)	**10**
		Enthalpy, Entropy, and free energy	1 Mark each (1 Mark*3)	
		Relationship equation	1 Mark	
	ii.	Definition	1 Mark	**10**
		3 phases of glycolysis.	3 Marks each (3 Marks*3)	
	iii.	(a)		**5**
		(a) Carbohydrates	2 Marks	
		(b) Proteins	1.5 Marks	
		(c) Nucleic acid	1.5 Marks	
		(b) Reactions of glycolysis (No structure required)	5 Marks	**5**
Q.3		Attempt any seven: Two questions from each section is compulsory.		
		Section - A		
	i.	Definition	2 Marks	**5**
		Pathway	3 Marks	
	ii.	3 phases of β-Oxidation	5 Marks	**5**
	iii.	Transamination & deamination.	5 Marks	**5**
		Section - B		
	iv.	5 phases	1 Mark each (1 Mark*5)	**5**
	v.	4 steps	1.25 Marks each (1.25 Marks*4)	**5**
	vi.	Structure of DNA Any 4 functions	3 Marks 0.5 Mar each (0.5 Mark*4)	**5**
		Section – C		
	vii.	Classification of 6 classes	5 Marks	**5**
	viii.	Any 5 factors	5 Marks	**5**
	ix.	As per the explanation	5 Marks	**5**

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