

The Zee of

2022/TDC/ODD/SEM/ BOTHCC-102T/136

TDC (CBCS) Odd Semester Exam., 2022

BOTANY

(Honours)

(1st Semester)

Course No.: BOTHCC-102T

(Biomolecules and Cell Biology)

Full Marks: 50
Pass Marks: 20

Time: 3 hours

The figures in the margin indicate full marks for the questions

UNIT-I

1. Answer any two of the following:

 $2 \times 2 = 4$

- (a) What is buffer solution?
- (b) Write a note on pH.
- (c) Classify carbohydrates.
- 2. Answer any one of the following:

(a) What are the different levels of protein structure? Briefly discuss the Ramachandran Plot. 4+2=6

(Turn Over)

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	(b) Give a detailed account of structur tRNA. Write the features of B-DNA
	BOTANY II—TINU (Honowis)
3.	Answer any two of the following: (a) Give examples of polysaccharides.

(SE) ATTOCYODD/SEM/

 $2 \times 2 = 4$

FROM CONTRACT AND DESCRIPTIONS.

Write a note on redox reactions.

Write a note on induced fit theory.

Answer any one of the following: 3+3=6

(a) Write notes on:

(i) Co-factors

Oc.

(ii) Allosteric enzymes

2=2=4

Give an account of Michaelis-Menten equation. I-TINU

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5. Answer any two of the following:

(a) Write the features of prokaryotic cells.

(b) Differentiate between endocytosis and exocytosis after entries one year reverse. I

(c) Differentiate between active and passive transport. The desired to the second second

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6.	Ans	wer any one of the following:	6
PA C	(a)	Write notes on in to only you (i) Endosymbiotic theory (ii) Proton-pumping ATPase	tw bal
	(b)	Describe the fluid mosaic r plasma membrane ciwith o diagram.	suitable
à.		ony one of the valueing :	LowenA .0.1
7.	Ans	wer any two of the following:	2×2=4
	(a)	Turic	tions of
	(b)	Write the functions of cell wal	u. Visi (da)
ð=5:	(c)	Write a note on cytoskeleton?	igie ini
8.	Ans	swer any one of the following:	6
	(a)	Give a detailed account of land their functions.	ysosomes 4+2=6
	(b)	Write notes on :	3+3=6
		(i) Nuclear pore complex	
		(ii) Histone proteins	
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9 .	Ans	2012310E 31/1W	2×2	2=4
	(a)	wer any <i>two</i> of the following . What are cyclin-dependent kin (cdks)?	lases	
	(b)	What are the functions of cell- checkpoints?	cycle	٠
ð=S	(c)	Write the significance of mitosis.		B
		wer any one of the following:		6
post.	(a)	Write notes on:	3+3	3=6
	To .	(i) MAP Kinase (ii) Difference between mitosis	Qu _i	
	(b)	meiosis Give an account of prophase—I of meiotic division. Point out significance of meiosis.	first the 4+2	2=6
3		grewolld at a six yas to v		
	arbinio	Tive e detaildi Account af lysos		

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(b) (1 + (1)