Enrollment No: Exam S	Seat No:
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## C. U. SHAH UNIVERSITY

## **Summer Examination-2022**

**Subject Name : Bioprocess Technology** 

Subject Code: 4SC05BPT1 Branch: B.Sc. (Microbiology)

Semester: 5 Date: 21/04/2022 Time: 11:00 To 02:00 Marks: 70

## **Instructions:**

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1		Attempt the following questions:	(14)
	a)	Define :- Bioprocess Technology	01
	<b>b</b> )	What is fed batch culture??	01
	c)	Define biomass yield.	01
	d)	Enumerate the role of impellers in fermentor.	01
	e)	What is downstream processing?	01
	f)	Enlist any two methods for cell disruption.	01
	g)	Define Turbidostat.	01
	h)	Enlist factors affecting Kla	01
	i)	Give applications of SCP	01
	j)	What is effuluent treatment?	01
	<b>k</b> )	Give the example of Secondary Metabolites.	01
	1)	Define generation time.	01
	m)	Define baffle.	01
	n)	Define: Bioreactor	01
Attem	pt any	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a	Write a note on Microbial growth curve.	07
	b	Write a note on Continous culture process.	07
Q-3			(14)
		Explain stirred tank bioreactor including advantage, disadvantage & applications	` '
Q-4		Attempt all questions	(14)
	a	Write a note microbial enzymes as a range of bioprocess technology	07
	b	Write a detail note on chemical agents of sterilization.	07



Q-5		Attempt all questions	(14)
	a	Write a detail note on range of bioprocess technology.	07
	b	Write a detail note cyclone fermentor.	07
Q-6		Attempt all questions	(14)
	a	Write a detail note on Lactic acid Production.	14
Q-7		Attempt all questions	(14)
	a	Write a brief note on Chromatography.	07
	b	Write a detail note on about oxygen requirement in bioprocess	07
Q-8		Attempt all questions	(14)
	a	Write a detail note on Effluent treatment	07
	b	Write a detail note on Bioprocess measurement.	07

