	Enrollm	ent No:	Exam Seat No:		
		C.U.SHAH	I UNIVERSITY		
	Winter Examination-2018				
	Subject	Name: Bioprocess Technology			
	Subject Code: 4SC04BPT1		Branch: B.Sc. (Microbiology)		
	Semeste	r: 4 Date: 31/10/2018	Time: 10:30 To 01:30 Mar	ks: 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 question	as:	(14)	
	a)	Define strain.			
	b)	Define intercalating agents.			
	c)	Define buffers.			
	d)	Define trace element.			
	e)	Expand SCP.			
	f)	Define pH.			
	g)	Define sedimentation rate.			
	h)	Write the name of any two organ			
	i)	Write the scientific name of Vita Define sterilization.	ımın B12		
	j) k)	Define antifoam agents.			
	l)	Define mutagen.			
	m)	Define Enzyme.			
	n)	Define reverse osmosis.			
Atte	mpt any	four questions from Q-2 to Q-8			
Q-2		Attempt all questions		(14)	
	a) b)	Briefly different types of impelle Explain the production and purif		(7) (7)	
Q-3		Attempt all questions		(14)	
	a)b)	Write a note on DNA mutating a Explain the mode of operation of	gent. f batch and fed batch fermentation.	(7) (7)	



Write a note on mechanical and hydrodynamic fermenters. Differentiate between upstream and downstream processing.

Q-4

a)b)

Attempt all questions

(14)

(7)

(7)

Q-5	Attempt all questions		
	a)	Write a short note on SCP.	(7)
	b)	Write notes on cleaning and sterilization of air.	(7)
Q-6		Attempt all questions	(14)
	a)	Explain the production of amylase.	(7)
	b)	Write notes on strain improvement techniques.	(7)
Q-7		Attempt all questions	(14)
	a)	Write a short note on fermentation media design.	(7)
	b)	Write notes on importance of aeration and agitation.	(7)
Q-8		Attempt all questions	(14)
	a)	Discuss the important parameters that are required to be monitored and controlled in a fermentation process which would consistently produce quality products.	(7)
	b)	Explain the method of cell disruption.	(7)

