	Enrollm	ent No:					
		C.U.SI	HAH UNIVERSIT	$\mathbf{Y}$			
	Summer Examination-2017 Subject Name: Industrial Biotechnology						
	Subject	Code: 4SC06IBT1	Branch: B.Sc. (Biotechnol	logy)			
	Semester Instruction		Time: 02:30 To 05:30	Marks: 70			
	(2) 1 (3) 1	Instructions written on ma	culator & any other electronic instrument answer book are strictly to be obey igures (if necessary) at right places. eded.	-			
Q-1	Attempt the following questions:						
	<ul> <li>a) Write the full form of DO.</li> <li>b) What is Log phase?</li> <li>c) Write one method of heat Sterilization.</li> <li>d) What is Cell disruption?</li> <li>e) In SSF product recovery is easy. True/False.</li> <li>f) kcat is related to enzyme activity. True/False.</li> </ul>						
	<ul> <li>g) Which enzyme is used in diagnostic kits for detecting Urea?</li> <li>h) Lactobacillus bulgaricus is used for yogurt production. True/False.</li> <li>i) During fermentation boiling appearance is due to the production of carbon</li> </ul>						
	1)	During fermentation boiling appearance is due to the production of carbon dioxide bubbles caused by the anaerobic catabolism of the sugars present in the extracts. True/False.					
	<b>j</b> )	What is Incoculum?					
	<ul><li>k) Fed-batch fermentation is a type of LSF. True/False.</li><li>l) What is anabolism?</li></ul>						
	l) <b>m</b> )	Pekilo is a fungal protein rich product. True/False.					
	n)	<del>-</del> -	eration in downstream processing. Tru	ue/False.			
Atte	mpt any f	four questions from Q-2	to Q-8				
Q-2		Write short notes on- Continuous fermentation			7		
	a				7		
	b	Industrial strain improvem	ent		7		
Q-3		Explain the following v	vith suitable diagram-				
-	a.	Commercial Production	of Antibiotics (any one).		7		
	b.	Solid state fermentation			7		

Q-4



What do you mean by downstream processing? Explain the various methods of

(3+11)

Q-5	Attempt all questions				
	a.	Briefly explain the differences between batch and continues fermentation.	7		
	b.	<b>b.</b> What is enzyme immobilization? Briefly explain the applications of immobilized enzymes.			
Q-6		Attempt all questions			
	a.	What is SCP? Briefly explain the production of mushroom.	7		
	b.	What do you mean by fermentation? Briefly explain main components of a	7		
		fermentor.			
Q-7		Attempt all questions			
	a.	Explain the industrial production of alcohol.	7		
	b.	Explain the methods of enzyme immobilization with suitable diagram.	7		
Q-8		Write short notes on-			
-	a.	Fermented dairy products.	7		
	b.	Effect of pH and Temperature on microbial growth.	7		
	<b>D</b> •	Effect of pir and remperature on interoplar growth:	,		

