[87] Seat No:\_\_\_\_

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## SARDAR PATEL UNIVERSITY B.Sc III SEMESTER EXAMINATION

Tuesday, 26<sup>th</sup> November 2019

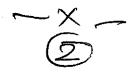
2:00 pm to 5:00 pm

BIOTECHNOLOGY: US03CBIT22 MICROBIAL BIOTECHNOLOGY

Note: Fig	ures to the right indicates marks.  Total M	arks: 70
Q.1	Multiple Choice Questions.	[10]
i)	Which of the following is not the basic shape of the bacteria?  a) Rod shape b) Comma shape c) Spiral shape d) None of these	
ii)	The filter is made up of diatomaceous earth material.  a) Seitz b) Berkefeld c) Chamberland Pasteur d) Membrane	
iii)	Yeast is organism.  a) Unicellular, Prokaryotic c) Unicellular, Eukaryotic d) Multicellular, Eukaryotic	
iv)	The first application of gene amplification to industrial strains was for the improvement of production.	
v)	a) Enzyme b) Antibiotics c) Vaccines d) Proteins Generally, the production medium for fermentation contains  a) Source of C & N b) Growth factors c) Mineral salts d) All of these	
vi)	Proteases is/are produced by a) Bacillus subtilisb) B.licheniformis c) Aspergillus niger. d) all of these	
vii)	In cheese production during coagulation milk is converted into  a) Lactic acid b) Curd c) Whey d) Both (b) & (c)	
viii)	Siderophores secreted by phosphate solubilizing microorganisms chelate the present in the root zone.  a) Iron b)Mg c) Mn d) Cu	
ix)	a) Iron b)Mg c) Mn d) Cu Mycorrhiza is a symbiotic association between fungus &  a) Root b) Stem c) Leaves d) Fruits	
<b>x</b> )	Dhingri mushroom is the common name ofspecies mushroom.  a) Pleurotus b) Volvariella c) Agaricus bisporus d) A. brunnescens	
		(P.T.O)

Ç	).2	Answer the following questions in short. (Attempt any 10)	[20]	
i ti V V V V iV	i) ii) ii) y) j) iii) iii) iii)	Define Virus. Give its characters. Differentiate between Plasmolysis &Plasmoptysis. Write the practical applications of alcohols & phenol. What is Auxotrophic mutant? Give its suitable example. What is secondary screening? Give its importance. Give uses of yeast extracts in fermentation media. What do you mean by Probiotics? Give the advantages & disadvantages of continuous fermentation. Write in brief about bread making. Define the term Biofertilizer. Give the advantages & disadvantages of biopesticides. What are bioplastics?		
Q.3		Explain in detail the different kinds of heat radiation used to destroy the microorganisms.	[10]	
Q.3	a) b)	OR Give an elaborative note on halogen compounds used as a chemical antimicrobial agent. Write a note on mode of action & practical applications of heavy metals.	[06] [04]	
Q.	.4	Define primary screening. Discuss in detail various techniques used for isolation of microorganisms.	[10]	
OR				
Q.4	a)	Discuss the role of molasses & sulfite waste liquor used as a synthetic media in fermentation.	[05]	
	b) _	Give an account on parasexual cycle in strain improvement & also give its applications.	[05]	
Q.5	a) b)	Give an account on cheese production.  Define Batch fermentation. Explain it in detail.	[05] [05]	
Q.5	a) b)	OR Discuss in detail production of amylase from microorganisms. Describe the production of yogurt.	[05] [05]	
Q.6	a) b)	Explain in detail the production of single cell protein& give its application Write short note on Bioinsecticide.	[05] [05]	
Q.6	a)	OR Give an account on process of mushroom cultivation.	[05]	
	b)	Write short note on bacterial biofertilizer.	[05]	

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