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

Summer Examination-2017

Subject Name : Scope and Applications of Microbiology

Subject Code: 4SC01SAM1 Branch: B.Sc.(Microbiology)

Semester: 1 Date: 07/04/2017 Time: 10:30 To 01:30 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 bioremediation.	1
	b)	What is the contribution of Selman Waksman in microbiology?	1
	c)	Who developed first vaccine?	1
	d)	Define mutualism.	1
	e)	What is the magnification power?	1
	f)	What do you mean by resolution?	1
	g)	What is the contribution of Louis Pasteur?	1
	h)	Define Medical microbiology.	1
	i)	What is contribution of paul ehlrich?	1
	j)	What is the major difference between gram negative and gram positive bacteria?	1
	k)	What is tyndallisatoin process?	1
	1)	Define immunity.	1
	m)	What is antigen?	1
	n)	Define biofertilizer.	1
Atten	ipt any f	Cour questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a)	Write a note on spontaneous generation theory.	7
	b)	Write a note on contribution of scientists in establishment of field of medical microbiology.	7
Q-3		Attempt all questions	(14)
	a)	Write a note on Fluorescence Microscope and its Working principle with diagram.	7
	b)	Write a note on Various Filtration techniques used for sterilization.	7
Q-4		Attempt all questions	(14)
	a)	Write a note on bright field microscopy and its working principle with diagram.	7
	b)	Write a note on Dry heat and moist heat sterilization.	7



Q-5		Attempt all questions	(14)
	a)	Differentiate Hot air oven and autoclave with diagram and working principle.	7
	b)	What is the working principle of Dark field microscope explain with diagram?	7
Q-6		Attempt all questions	(14)
		Discuss in detail about Electron microscopic techniques.	14
Q-7		Attempt all questions	(14)
	a)	Enlist differences between SEM (Scanning Electron Microscopy) and TEM	7
		(Transmission Electron Microscopy).	
	b)	Describe various types of antibodies in brief.	7
Q-8		Attempt all questions	(14)
_	a)	Discuss different microbial interactions and use of microorganisms as pesticides.	7
	b)	Briefly discuss primary immune response.	7

