

No of printed pages: 02 SEAT NO.

SARDAR PATEL UNIVERSITY

B.Sc. 4th SEMESTER EXAMINATION SUBJECT: MICROBIOLOGY US04CMIC01

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Date: 03/10/22	FUNDAMENTALS OF MICROBIOLOGY

Total Marks: 70

(10)

- <u>l</u>	Attempt Multiple Choice Q	nestions: Choose the Most Appropriate Onc.	( -
1.	Which of the following cause		
	a) Staphylococcus epiderm		
	c) Propionibacterium acne	d) E.coli	
2.	Which type of toxin is tetanu	s toxin?	
	a) enterotoxin	b) neurotoxin d) endotoxin	
3.		largest microbial population?	
	a) stomach	b) small intestine	
4	c) large intestine	d) mouth	
4.	Which of the following is an		
	a) Cholera	b) Typhoid	
	c) Tuberculosis	d) Malaria	
5.	Function of sparger in a ferm		
	a) providing aeration	b) providing nutrition.	
	c) controlling pH.	d) Maintaining turbidity	
6.	Penicillin affects on which part of bacterial cell?		
	a) Capsule	b) cellwall	
	c) cytoplasm	d) Flagella	
		nciple of for control of microbes?	
	a) Dry heat	b) Osmotic oressure	
	c) filtration	d) saturated steam under pressure	
8.	Which of the following is n	ean of controlling microorganisms by chemical agen	ts?
	a) Use of antibiotics	b) Drying	
	c) Using Radiation	d) Using desiccation	

a) Heavy metal salts

b) Phenols

9. Antimicrobial agents which inactivate enzymes by specifically binding with sulphhydryl

d) alcohols

Acridine dyes

10. The time in minutes required to reduce the microbial population by 90% is known as-

a) Thermal death time

b) Thermal Death point

c) Generation time

d) Decimal reduction time

group are .....



Q-2 Do as directed (4+4=08)

## A. Fill in the blanks (4)

- 1. Stomach usually contains low count of bacteria when gastric juices are secreted due to ———(high pH / Low pH)
- 2. ---- prevent vortex formation during fermentation (Baffles/ spargers)
- 3. Antimicrobial agent having killing as well as cleaning effect is ----- (Phenol/crystal violet)
- 4. Hot air oven works on ----- (moist heat, dry heat)

## B. Mention true or false

- 1. Evaporation of droplets results into Droplet nuclei formation
- 2. Escherichia coli produce sreptokinase.
- 3. Pasteurization process is used to reduce number of the microbial population of milk.
- 4. Antibiotics are the antimicrobial agents produced by one kind of microbes and inhibitory to other kind of microbes.

## Q-3 Attempt any ten (10) questions in short.

(20)

- 1. Enlist microbial flora of skin
- 2. Give two examples of exo toxins.
- 3. What are antiphagocytic factors?
- 4. Enlist airborne viral infections.
- 5. Differentiate between droplet and droplet nuclei.
- 6. Enlist characteristics of industrially important microorganisms
- 7. What is bactericide? Give example.
- 8. How X-rays affect microbial population?
- 9. When filtration can be effective for control of microbes?.
- 10. Enlist characteristics of ideal antimicrobial agent.
- 11. Write mode of action of alcohols.
- 12. List materials used for preparation of bacteriological filters...

## Q-4 Attempt any four in detail (4x8=32)

(32)

- 1. Explain: Germ free animals and their importance.
- 2. Explain Normal flora of mouth.
- 3. Write note on: contro9l of airborne microorganisms.
- 4. Draw a complete Fermentor and list functions of its four important parts.
- 5. Explain: High temperature as microbicidal agent.
- 6. Write a note on:osmotic pressure for microbial control..
- 7. Explain: Gaseous antimicrobial agents.
- 8. Write a note on Practical applications and mode of action of: heavy metals, chlorine and chlorine compounds.

2 | Page



