

SEAT No. \_\_\_\_\_  
[14]

SARDAR PATEL UNIVERSITY  
SUBJECT: MICROBIOLOGY  
B.Sc. SEMESTER IV  
US04CMIC22, Elements of Microbiology II



Date: 18<sup>th</sup> April, 2022

Time: 03.00p.m. To 05.00p.m.

Total marks: 70

Q:1 Attempt Multiple Choice Questions: Choose the Most Appropriate One. 10

1. False temporary feet which are extensions of cytoplasm and help in locomotion and capturing of food in some protozoa are \_\_\_\_\_  
a. Flagella  
b. Pseudopodia  
c. cilia  
d. Cyst
2. Carrageenan is obtained from \_\_\_\_\_  
a. Protozoa  
b. Fungi  
c. Algae  
d. viruses
3. The simplest unicellular, eukaryotic yeast, which can be used by molecular biologists as a favourite tool is  
a. *Penicillium Chrysogenum*  
b. *Saccharomyces cerevisiae*  
c. *E. coli*  
d. *Entamoeba histolytica*
4. Viroids are covalently closed, circular, \_\_\_\_\_, about 250 to 370 nucleotides long  
a. ss-DNA  
b. ds-DNA  
c. ss-RNA  
d. ds-RNA
5. Which of the following is an example of continuous cell line for virus cultivation?  
a) Chick embryos  
b) Skin cells  
c) Lung cells  
d) HeLa cells
6. Which of the following are acid fast structures?  
a. *Mycobacterium Tuberculosis*  
b. *Bacillus subtilis*  
c. *Pseudomonas aeruginosa*  
d. *Staphylococcus aureus*
7. The most lethal toxin producing organism to be eliminated in canned foods is.....?  
a. *Saccharomyces cerevisiae*  
b. *Lactobacillus bulgaricus*  
c. *Streptococcus thermophilus*  
d. *Clostridium botulinum*
8. Rancidity is observed for \_\_\_\_\_.  
a. Protein foods  
b. fatty foods  
c. carbohydrate foods  
d. vegetables and fruits
9. Phosphatase test used for checking proper pasteurization of milk is based on checking presence of....  
a. Coliforms  
b. Acid fast bacteria  
c. Phosphatase enzyme  
d. Catalase enzyme
10. Use of excess salt or sugar in dissolved form for food preservation is based on principle of \_\_\_\_\_.  
a. High temperature  
b. canning  
c. fermentation  
d. Osmotic pressure



(P.T.O.)



**Q:2 Do as directed (One mark each)**

1. Agar agar powder is obtained from fungi. (True / False)
2. Viruses are eukaryotic. (True / False)
3. Resazurine test is done to check quality of milk. (True / False)
4. Putrefaction is a type of food spoilage.. (True / False)
5. Cell wall of \_\_\_\_\_ is thick due to deposition of Silica. (Lichen / diatom)
6. All viruses consists of an RNA or DNA core genome surrounded by a protein coat is \_\_\_\_\_ (Capsid/envelop)
7. Slimes may be developed in or on foods by microbes capable of synthesizing\_\_\_\_\_(pigments / polysaccharides )
8. Starter culture used for making yougurt is \_\_\_\_\_ (*Lactobacillus bulgaricus*, *Penicillium roqueforti*)

**Q:3 Short question answer (Answer any 10 questions out of 12 questions)**

1. What is dimorphism in fungi?
2. Name two protozoa.
3. What are lichens?
4. Draw structure of TMV
5. What are PRIONS?
6. How morphological groups of bacteriophages typeA and Type-B differ from each other?
7. What do you mean by fermented food? Give examples.
8. Enlist factors affecting type and number of microbes in food.
9. What is food poisoning? Name two microbes involved in food poisoning.
10. Write principle of MBRT test.
11. Name two milk borne diseases.
12. What are probiotics? Mention their significance.

**Q:4 Answer in detail (Any four )**

1. Explain economic importance of algae.
2. Write a note on: Yeasts.
3. Write a note on: Cultivation of animal viruses.
4. What are virulent phages? Explain life cycle of virulent phages.
5. Enlist methods of food preservation and explain any two in detail.
6. Write a note on: Microbes as food.
7. Write a note on Microbiology of cheese making.
8. Explain: Sources of microorganisms in milk.

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