



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech.(Food Engg. & Technology)**  
**VIII Semester Final Re- Examination – July 2023**  
**2019 Admission**

**Fdqu.1202**

**General Microbiology (1+1)**

**Marks: 50**  
**Time: 2 hours**  
**(10x1=10)**

**I Choose the correct answer**

- 1 Which one of the following groups produce spores?  
a) Bacillus & Clostridia      b) Coliforms  
c) Vibrios                              d) *Pseudomonas & Aeromonas*
- 2 The killing effect of moist heat on bacteria is through  
a) Destruction of DNA              b) Coagulation of proteins  
c) Damage of cell membrane      d) Inhibition of protein synthesis
- 3 The most commonly used chemical for the disinfection of surfaces and discard jars in the laboratory is  
a) Phenol                              b) Quaternary Ammonium Compounds  
c) Aldehydes                          d) Iodophores
- 4 The organisms that use the electrons from reduced inorganic compounds as a source of energy, and they use CO<sub>2</sub> as their principal source of carbon are called  
a) Photoautotrophs                  b) Chemoautotrophs  
c) Photoheterotrophs                d) Chemoheterotrophs
- 5 The indicator microorganism used to determine the fecal contamination of water is  
a) Coliforms                          b) Vibrios  
c) *Pseudomonas*                      d) Bacillus

**Match the following**

- |    | A                        |    | B                       |
|----|--------------------------|----|-------------------------|
| 6  | Transformation           | a) | Acridine orange         |
| 7  | Interchelating agent     | b) | Bread mold              |
| 8  | Chlorella                | c) | Frederick Griffith      |
| 9  | <i>Neusospora crassa</i> | d) | Gram positive cell wall |
| 10 | Peptidoglycan            | e) | Non motile Alga         |

**II Write short notes on ANY FIVE of the following**

**(5x2=10)**

- 1 What are the steps involved in replication of viruses?
- 2 Give examples of important RNA viruses.
- 3 Explain the alcoholic fermentation in microorganisms.
- 4 List four important fungi.
- 5 Give the relationship between resolving power- numerical aperture.
- 6 Give the details of the experiment of Edward Jenner.
- 7 What is the role of plasmids in bacteria?

**III Answer ANY FIVE of the following**

**(5x4=20)**

- 1 Explain methods of purification and preservation of pure cultures of bacteria.
- 2 With the help of a diagram explain the structure of antibody.
- 3 List major groups of microbial bioproducts.
- 4 Explain the lactic acid fermentation in microorganism.
- 5 Explain the Koch's postulates.
- 6 Explain the structure of outer membrane of Gram negative bacteria.
- 7 Explain the bacterial growth curve.

**IV**

**Write an essay on ANY ONE of the following**

**(1x10=10)**

- 1 Describe different diagnostic techniques using antigen antibody reaction.
- 2 Compare and contrast a bacterial an a eukaryotic cell.

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