



Fdqu.1202

**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech.(Food Engg) 2018 Admission**  
**II Semester Final Examination- June 2019**

**General Microbiology(1+1)**

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

**I Fill up the blanks**

- 1 \_\_\_\_\_ has described phagocytosis of bacteria.
- 2 Gram-positive cell walls contain a higher percentage of \_\_\_\_\_ than those of Gram-negative cells.
- 3 The DNA of phages becomes integrated into the host genome, where it is known as a \_\_\_\_\_.
- 4 \_\_\_\_\_ is a group of related genes under the control of a single operator sequence
- 5 \_\_\_\_\_ is a mutation in which a purine replaces a pyrimidine, or a pyrimidine replaces a purine
- 6 \_\_\_\_\_ is an organism that can derive its carbon from carbon dioxide
- 7 \_\_\_\_\_ is a medium that allows colonies of a particular organism to be differentiated from others growing in the same culture
- 8 \_\_\_\_\_ is the synthesis of ATP by the direct transfer of a phosphate group from a phosphorylated organic compound to ADP.
- 9 \_\_\_\_\_ is the process of uptake of naked DNA from the environment and its integration into the host genome
- 10 \_\_\_\_\_ is the process of bacteriophage-mediated transfer of genetic material between bacteria.

**II Write Short notes on any FIVE of the following**

**(5x2=10)**

- 1 Four examples of microbes used in our day to day activities.
- 2 Third kingdom Protista.
- 3 Applied areas of microbiology.
- 4 Functions of bacterial capsule.
- 5 Continuous culture.
- 6 Koch's Postulates.
- 7 Various antigen antibody reactions.

**III Answer any FIVE of the following.**

**(5x4=20)**

- 1 Contribution of Louis Pasteur.
- 2 Major characteristics of microorganisms used in classification.
- 3 Electron microscope.
- 4 Pour plate method for isolation and enumeration of bacteria.
- 5 Conjugation.
- 6 Characteristics of Immune response.
- 7 Bacterial transcription.

**IV Answer any ONE of the following**

**(1x10=10)**

- 1 Bacterial cell structure with their functions
- 2 Glycolysis pathway along with account for the ATP yield per glucose molecule

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