

**Avinashilingam Institute for Home Science and Higher Education  
for Women , Coimbatore-641 043**

**Bachelor's Degree Examination – November 2017**

**V Semester**

**Class : III UG  
Major : Botany**

**Time : 3 Hours  
Max. Marks: 100**

**15BBOC15 Microbiology  
Part-A**

**10 x 1=10**

**Choose the correct answer**

1. The germ theory of disease was proposed by
  - a. Louis Pasteur
  - b. Robert Koch
  - c. Biejernick
  - d. Ronald
  
2. The bacterium with group of flagella at both end is
  - a. Monotrichous
  - b. Peritrichous
  - c. Amphitrichous
  - d. Lophotrichous
  
3. The protein coat of virus is known as
  - a. Nucleo capsid
  - b. Envelope
  - c. Capsomere
  - d. Capsid
  
4. The most common method of yeast multiplication is
  - a. Budding
  - b. Conjugation
  - c. Fragmentaion
  - d. Plasmogamy
  
5. During putrefaction protein is converted into
  - a. Fatty acids
  - b. Lipids
  - c. Carbohydrates
  - d. Amino acids
  
6. In pasteurization method the temperature range is
  - a. Above 100° C
  - b. Below 100° C
  - c. Below 50° C
  - d. Above 150° C
  
7. The stimulatory substance produced by Rhizobium is
  - a. NAA
  - b. IAA
  - c. IBA
  - d. BAP
  
8. Bacillus thurigiensis produces
  - a. Exotoxins
  - b. Endotoxins
  - c. Exo and Endo toxins
  - d.  $\alpha$  and  $\beta$  toxins
  
9. Wine production occurs at
  - a. Anaerobic condition
  - b. Aerobic condition
  - c. Alkaline condition
  - d. Mesophilic condition
  
10. Metagenomics is mainly confined to
  - a. Culturable microbes
  - b. Marine microbes
  - c. Freshwater microbes
  - d. Non- culturable microbes

**Part - B**

**5 X 6=30**

**Answer the following**

**Answer should not exceed 400 words or two pages**

11. a. Write down the different morphological types of bacteria.  
( or )  
11.b. Write a detailed account on Gram staining.
- 12.a. Classify viruses based on association with host.  
( or )  
12.b. Outline the economic importance of bacteria.
13. a. What is food infection? Mention the some important food borne infections.  
( or )  
13.b. Comment on microbial spoilage of fruits and vegetables.
14. a. What are Bio fertilizers? Mention the organisms used in it.  
( or )  
14.b. Define Biofertilizers? Mention any three micro organism which is used in agriculture and their purpose.
15. a. Write in detail about metagenomics.  
( or )  
15.b. What are vaccines ? Explain

**Part - C**

**5 x 12=60**

**Answer the following**

**Answer should not exceed 800 words or four pages**

16. a. Explain in detail outline microbiology and the scope.  
( or )  
16.b. Outline the methods of recombination found in bacteria.
17. a. Diagrammatically describe the structure of viruses based on symmetry  
( or )  
17.b. Explain the patterns of life cycle found in yeasts.
18. a. Write an essay about the method of food preservation by freezing.  
( or )  
18.b. Give an account on cholera and its control.
19. a. Describe the microbial flora of soil, and their applications.  
( or )  
19.b. Explain the mechanism non-symbiotic nitrogen fixation, with suitable examples.
20. a. Describe the steps involved in industrial production of ethanol.  
( or )  
20.b. Analyze the method of penicillin production.

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