



Date: 26-10-2018  
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

**PART A**

*Answer the following, each within 50 words:*

*(10 x 2 =20 marks)*

1. List any 4 salient features of prokaryotes.
2. Write notes on Whittaker's classification.
3. What are endospores?
4. Give examples of any two microbiological media and its uses.
5. What are plasmids?
6. Write notes on DNA as genetic material.
7. Give any 2 salient features of mycoplasmas.
8. Draw the structure of Tobacco Mosaic Virus.
9. What are vaccines?
10. Mention the nitrogen fixing microbes.

**PART B**

*Answer the following, each within 500 words. Draw diagrams and flowcharts wherever necessary:*

*(5 x 7 = 35 marks)*

11. (a) Give an account on the classification of algae with its salient features.

**Or**

- (b) List any 10 salient features of bacteria with suitable examples.

12. (a) Draw and describe the ultrastructure of a bacterial cell.

**Or**

- (b) Write notes on the nutritional requirements for bacterial growth.

13. (a) Give a brief note on the bacterial gene regulation with lac operon as example.

**Or**

- (b) Write briefly on bacterial DNA replication.

14. (a) Give an account on the little leaf of brinjal disease.

**Or**

(b) Write in brief on the citrus canker of bacteria.

15. (a) Give an account on microbial enzymes and their applications.

**Or**

(b) Explain the methodology of penicillin production.

### **PART C**

Answer any **three** of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary: **(3 x15 = 45 marks)**

16. Discuss in detail on the classification of fungi and viruses.

17. Write in detail on the microbial growth and its measurements.

18. Discuss the processes of transduction and conjugation in bacteria.

19. Write in detail on the symptoms and pathology of wheat rust disease.

20. Give a detailed account on the microbiology of waste water treatment.

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