

**BACHELOR OF SCIENCE (CBCS-2018 COURSE)**  
**F. Y. B. Sc. Sem-I : WINTER :- 2021**  
**SUBJECT: MICROBIOLOGY : STRUCTURE OF PROKARYOTES &**  
**EUKARYOTES**

Day : Wednesday  
Date 19-01-2022

W-18305-2021

Time : 10:00 AM-01:00 PM  
Max. Marks: 60

---

**N. B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labelled diagram **WHEREVER** necessary.
- 

**Q. 1** Attempt **ANY TWO** of the following: **(12)**

- a) Describe general properties of *Rickettsias*.
- b) With the help of neat and labelled diagram discuss the structure and functions bacterial of flagellum.
- c) Give general properties of viruses.

**Q. 2** Attempt **ANY TWO** of the following: **(12)**

- a) Giving suitable examples, discuss size, shape and arrangement of bacterial cells.
- b) Draw a neat labelled diagram of bacterial endospore and discuss the factors regulating heat resistance of endospores.
- c) Give general properties of Protozoa.

**Q. 3** Attempt **ANY TWO** of the following: **(12)**

- a) Comment on 'Embryonated Egg' technique.
- b) What are Prions? Discuss any two diseases caused by Prions.
- c) Explain general properties and significance of fungi.

**Q. 4** Write short notes on **ANY THREE** of the following: **(12)**

- a) Gas vacuoles
- b) Viroids
- c) Primary cell culture
- d) Metachromatic granules

**Q. 5** Attempt **ANY FOUR** of the following: **(12)**

- a) Explain the significance of bacterial ribosome.
- b) Give the significance of *Archaeobacteria*.
- c) Which algae are used for commercial production of agar?
- d) Describe helical type of viral capsid.
- e) Give two examples each of DNA viruses and RNA viruses.
- f) Mention the advantages and disadvantages of HeLa culture.

\* \* \* \* \*

---