

**F.Y.B.Sc. SEM – I (CBCS 2018 COURSE) : WINTER - 2018**  
**SUBJECT : MICROBIOLOGY: STRUCTURE OF PROKARYOTES & EUKARYOTES**

Day : Monday  
Date : 15/10/2018

**W-2018-0669**

Time : 11.00 A.M TO 02.00 PM  
Max. Marks : 60

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
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**Q.1** Attempt **ANY TWO** of the following: [12]

- a) Discuss general properties of '*Archaeobacteria*'.
- b) Giving suitable examples explain types of 'pili'.
- c) With the help of neat and labeled diagram. Explain virus cultivation using 'Embryonated Egg Technique'.

**Q.2** Attempt **ANY TWO** of the following: [12]

- a) Give composition and functions of bacterial capsule.
- b) Describe structure and functions of bacterial ribosome.
- c) Give general properties and significance of *Chlamydia*.

**Q.3** Attempt **ANY TWO** of the following: [12]

- a) Enlist arrangements of 'bacterial flagella' and mention the function of bacterial flagellum.
- b) Giving suitable examples, mention different positions of bacterial endospores and diagrammatically explain the structure of bacterial endospore.
- c) Give general properties and significance of Algae.

**Q.4** Write short notes on **ANY THREE** of the following: [12]

- a) Prions
- b) Carboxysomes
- c) Medical significance of *Coxiella*
- d) Diploid cell cultures

**Q.5** Attempt **ANY FOUR** of the following: [12]

- a) What are 'viroids'? Mention their significance.
- b) Give merits and demerits of continuous cell culture.
- c) With suitable examples, discuss medical significance of Protozoa.
- d) What are 'Gas-vacuoles'? Give their significance in marine bacteria.
- e) Discuss shapes and arrangements of bacterial cells.
- f) Enlist the functions of bacterial cell-membrane.

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