

**F.Y.B.SC. SEM – I (2014 COURSE) : SUMMER - 2018**  
**SUBJECT: MICROBIOLOGY: STRUCTURE OF PROKARYOTES & EUKARYOTES**  
**(MB – 12)**

Day : **Wednesday**  
Date : **18/04/2018**

**S-2018-0681**

Time : **12.00 NOON TO 02.00 PM**  
Max. Marks : 40

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Attempt **ANY TWO** of the following: **[10]**

- a) Explain the 'Fluid Mosaic Model' of bacterial cell.
- b) What is continuous cell culture? Write the merits and demerits of 'Continuous cell culture'.
- c) Write general properties and significance of *Chlamydia*.

**Q.2** Answer **ANY TWO** of the following: **[10]**

- a) Comment on size, shape and arrangement of bacterial cell.
- b) Describe general characteristics of viruses.
- c) What are uncultured microorganisms? Mention the challenges.

**Q.3** Write short notes on **ANY TWO** of the following: **[10]**

- a) General properties of *Coxiella*
- b) Bacterial ribosomes
- c) Morphological types of viral capsids

**Q.4** Attempt **ANY FIVE** of the following: **[10]**

- a) Give the significance of 'PHB granules'.
- b) Mention types of teichoic acid present in bacterial cell wall.
- c) Give any two examples of algae to be used as a source of 'Agar agar'.
- d) Mention any two diseases caused by prions.
- e) What are bacteriophages? Give any two examples.
- f) Enlist taxonomical ranks.
- g) Give the significance of gas vacuoles in marine bacteria.

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