

Enrollment No: _____

Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Bacterial Diversity

Subject Code: 5SC02BAD1

Semester: 2

Date: 16/04/2019

Branch: M.Sc. (Microbiology)

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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SECTION – I

Q-1 Attempt the Following questions (07)

- a. Bacterial cell wall is made up of.....
- b. A cluster of polar flagella is called.....
- c. The L ring in a gram negative bacterium flagella is associated with
- d. 23S rRNA gene deduced the evolutionary relationship between the taxonomic groups. T/F
- e. Square shape is not the basic shape of the bacteria .T/F
- f. The growth of bacterial populations follows a geometric progression. T/F
- g. Chemostat is used to grow bacterial culture continuously. T/F

Q-2 Attempt all questions (14)

- (a) Explain the significance of 16rRNA in systematic bacteriology. (7)
- (b) Discuss in detail Euryarchaeota including basic characteristics of the seven classes of Euryarchaeota. (7)

OR

Q-2 Attempt all questions (14)

- (a) Give an account of the ecological significance of phylum- Deinococcus-Thermus. Also discuss the morphological and metabolic characteristics of phylum Aquifices. (7)
- (b) List any four resemblances and four differences between basidiomycetes and ascomycetes. (7)

Q-3 Attempt all questions (14)

- (a) Describe the morphological, metabolic and economic importance of Alpha proteobacteria group. (7)
- (b) Discuss in detail the difference between low G+C and high G+C gram positive bacteria on the basis of morphology, metabolism and economic importance. (7)

OR

Q-3 (a) Discuss the metabolic and economic importance of Gamma proteobacteria. (7)

- (b) Explain the economic importance of Firmicutes phylum with the help of different examples of their family. (7)**



