

# **AE-791**

M.Sc. (Previous)  
Term End Examination, 2016-17

## **MICROBIOLOGY**

Paper - I

Bacteriology

*Time : Three Hours] [Maximum Marks : 100*  
*[Minimum Pass Marks : 36*

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**Note** : Answer **all** questions. All questions carry equal marks.

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### **Unit - I**

1. Describe morphological types and cell wall structure of Archaebacteria.

### **OR**

Write short notes on the following :

- (a) Types and composition of bacterial capsule
- (b) Structure, composition and properties of cell membrane

( 2 )

**Unit - II**

2. Discuss cell division in bacteria.

***OR***

Write short notes on the following :

- (a) Structure and functions of bacterial spores
- (b) Structure and functions of Phycobilisomes

**Unit - III**

3. Write an essay on bacterial reserve food materials.

***OR***

Write short notes on the following :

- (a) Cyanophycin granules
- (b) Sulphur inclusions

**Unit - IV**

4. Describe bacterial growth curve in detail and discuss generation time and growth kinetics.

***OR***

Write short notes on the following :

- (a) Measurement of bacterial growth
- (b) Physical methods of bacterial control

( 3 )

**Unit - V**

5. How are microorganisms classified ? Discuss Haeckel's three kingdom concept for bacterial classification.

***OR***

Write short notes on the following :

(a) Classification of Cyanobacteria  
(b) Classification of Prochlorons and Cyanelles

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