

**AE-1257**

B.Sc. (Part - II)  
Term End Examination, 2016-17

**MICROBIOLOGY**

Paper - II

Principles of Bio-Instrumentation  
and Techniques

*Time* : Three Hours]      [*Maximum Marks* : 50

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

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**Unit-I**

1. Describe the principle and working of luminometry and give its application.

**OR**

Write short notes on the following :

- (a) Lambert-Beer Law
- (b) LASER

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**Unit-II**

2. What do you mean by Ion Exchange Chromatography ? Write its principle, working and application.

**OR**

Write short notes on the following :

- (a) Adsorption Chromatography
- (b) Application of Gas Chromatography

**Unit-III**

3. Write a comparative note on centrifugation and ultracentrifugation by throwing light upon its types, working and application.

**OR**

Write short notes on the following :

- (a) Phase Contrast Microscope
- (b) TEM

**Unit-IV**

4. Compare the terms Decontamination, Sterilization and Disinfection in detail.

**OR**

( 3 )

Write short notes on the following :

(a) MS Media

(b) Clone

**Unit-V**

5. What is Electrophoresis ? Explain Immuno-electrophoresis in detail.

***OR***

Write short notes on the following :

(a) Agarose Gel Electrophoresis

(b) Enzyme Assay Method

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