**SECTION – C** (2 × 20 = 40)

*Answer ALL questions.*
*Each answer should not exceed 1,200 words.*
*All questions carry equal marks.*

15. (a) Describe anaerobic and aerobic respiration in bacteria.

(OR)

(b) Explain the principles of density gradient centrifugation and add a note on its application.

16. (a) Explain the techniques of electron microscopy.

(OR)

(b) Write an account on mycoplasma.

Register Number :

Name of the Candidate :

**1 7 1 4**

# M.Sc. DEGREE EXAMINATION, 2008

**( BOTANY )**

( FIRST YEAR )

( PAPER - II )

## 120.MICROBIOLOGY, PLANT PATHOLOGY AND BIOLOGICAL TECHNIQUES

*( Revised Regulations )*

May ] [ Time : 3 Hours

Maximum : 100 Marks

**SECTION – A** (8 × 3 = 24)

*Answer ALL questions.*
*Each answer should not exceed 50 words.*
*All questions carry equal marks.*

1. Plasmid DNA structure.

2. Conductivity meter.

3. Little leaf of Brinjal.

4. Microbial interaction.

5. Rotary microtome.

6. Protein stains.

7. SDS – PAGE.

8. Phase contrast microscope.

**SECTION – B** (6 × 6 = 36)

*Answer ALL questions.*
*Each answer should not exceed 300 words.*
*All questions carry equal marks.*

9. (a) Describe the utra structure of bacterial cell.

(OR)

(b) Explain the techniques of maintenance and preservation of pure culture.

10. (a) Describe virus – vector relationship.

(OR)

(b) Describe microbial staining methods.

11. (a) Explain quarantine practice.

(OR)



(b) Explain the etiology, symptoms and causal organism of tobacco mosaic disease.

12. (a) Explain micrometry.

(OR)

(b) Explain the principles and applications of flow cytometry.

13. (a) Explain bacterial transduction.

(OR)

(b) Describe the chemical method of disease control.

14. (a) Describe the principles of fluorescent microscope.

(OR)

(b) Explain the principle and uses of HPLC.