

**Total No. of Pages:** 2

Register Number:

**6399**

Name of the Candidate:

**M.Sc. DEGREE EXAMINATION December 2014**

**(BOTANY)**

**(FIRST YEAR)**

**120: MICROBIOLOGY, PLANT PATHOLOGY AND  
BIOLOGICAL TECHNIQUES**

Time: Three hours

Maximum: 100 marks

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**SECTION-A**

**Answer ALL questions**

**(8 × 3 = 24)**

**Each answer not to exceed 50 words**

**Comment the following:**

1. Microtomes
2. Anaerobic respiration
3. Transmission
4. Koch's postulates
5. TEM
6. Stains for proteins
7. Ion exchange
8. Chromatography

**SECTION-B**

**Answer ALL questions**

**(6 × 6 = 36)**

**Each answer not to exceed 300 words**

9. a) Explain bacterial classification according Bergeys Manual.  
(OR)  
b) Discuss about Chemosynthetic bacteria.
10. a) Write an account on maintenance and preservation of pure culture.  
(OR)  
b) Give an account on general account of mycoplasma.

11. a) Give an account on angular leaf spot in cotton.  
(OR)  
b) Discuss about damping off of seedlings.
12. a) Write in detail about plant quarantine and legislation.  
(OR)  
b) Write about fluorescence microscope and its applications.
13. a) Mention the different types of microtomes and their advantages.  
(OR)  
b) Give an account on stains for carbohydrates and lipids.
14. a) Give an account on density gradient centrifugation.  
(OR)  
b) Give an account on SDS PAGE and its application.

**SECTION-C**

**Answer ALL questions**

**(2 × 20 = 40)**

**Each answer not to exceed 1200 words**

15. a) Explain structure, replication and transmission of viruses.  
(OR)  
b) Write in detail principles and different methods of disease control.
16. a) Compare and contrast SEM and TEM with their principles and application.  
(OR)  
b) Write in detail TLC and HPLC with their principles and application.

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