(b) Explain density gradient centrifugation with its principle and application.

SECTION - C (2 × 20 = 40)

Answer ALL questions.
All questions carry equal marks.

15. (a) Define electrophoresis. Explain the working principle and application of SDS and PAGE.

(OR)

(b) Explain the principle and application of light microscope. How does it differ from flourescence microscope ?

16. (a) Illustrate the classification of bacteria as per Bergays Manual (9th Ed.)

(OR)

(b) In detail, explain the various types of reproduction in bacteria.

Register Number :

Name of the Candidate :

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M.Sc. DEGREE EXAMINATION, 2010

(BOTANY)

(FIRST YEAR)

(PAPER - II)

120. MICROBIOLOGY, PLANT PATHOLOGY AND BIOLOGICAL TECHNIQUES

May] [Time : 3 Hours

Maximum : 100 Marks

SECTION - A (8 × 3 = 24)

Answer ALL questions.
All questions carry equal marks.

1. Chemosynthetic bacteria.

2. Mutalism.

3. Koch's postulate.

4. Micrometry.

5. Carbohydrate stain.

6. Conjugation.

7. Flow cytometry.

8. GLC.

SECTION - B (6 ×6 = 36)

Answer ALL questions.

All questions carry equal marks.

9. (a) Write about the scope and history of bacteria.

(OR)

(b) (i) Differentiate aerobic and anaerobic respiration.

(ii) Differentiate photosynthetic and chemosynthetic bacteria.

10. (a) Explain in detail the various steps involved in grams staining.

(OR)

(b) Give an general account on mycoplasma.

11. (a) Write about the chemical and biological methods of disease control.

(OR)

(b) Describe the disease symptoms, causal organism and dissemination of red rot of sugarcane.

12. (a) Define microtomy. Brief on rocking, rotary and ultra nicrotome.

(OR)

(b) Write about the material preparation techniiques for electron microscopy.

13. (a) Describe the disease symptoms, causal organism and dissemination of angular leaf spot of cotton.

(OR)

(b) Write about the working principle of TLC. Add a note on its uses.

14. (a) Describe the transmission of viruses.

(OR)