

No. of Printed Pages : 1

Sl. No.

21MBL1C4L

M.Sc. I Semester Degree Examination, April/May - 2023

MICROBIOLOGY

DSC 4 : Instrumentation and Techniques in Biology

Time : 3 Hours

Maximum Marks : 70

Instructions : Answer *any five* of the following questions with **question no. 1** is **compulsory** each questions carries **equal** marks.

1. (a) Explain the working principle and applications of phase contrast microscopy. **10**
(b) Write a note on Fourier analysis. **4**
2. Write an account on Plasma Emission spectroscopy. **14**
3. Describe in detail about density gradient centrifugation. **14**
4. Write an account on Geiger-Muller counter. **14**
5. Explain the working principle of RT-PCR and its applications. **14**
6. (a) Explain Thin Layer Chromatography. **7**
(b) Write a note on Southern blotting. **7**
7. (a) Write an account Native PAGE. **7**
(b) Explain the working principle Iso electric focusing. **7**
8. (a) Explain the Radiotracer techniques. **4**
(b) 3D image processing techniques. **5**
(c) Write a note on vibrational spectra of biopolymers. **5**

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