This question paper contains **2** printed pages]

ST—84—2022

FACULTY OF SCIENCE

M.Sc. (First Year) (Second Semester) EXAMINATION

MAY/JUNE, 2022

(CBCS/New Pattern)

BOTANY

Paper–VI

(Bioinstrumentation and Methods in Biology)

(Wednesday, 29-06-2022) **Time : 9.30 a.m. to 1.15 p.m.**

Time— 3.45 *Hours* *Maximum Marks*—75

N.B. :— (*i*) Attempt *All* questions.

(*ii*) *All* questions carry equal marks.

(*iii*) Draw well labelled diagrams wherever necessary.

1. Describe in detail principle, working and applications of Fluorescence Microscope. 15

Or

Describe in detail process of microtomy. 15

2. Describe in detail principle and applications of paper chromatography and gas chromatography. 15

Or

Describe in detail principle, working and applications of autoclave and pH meter. 15

3. Describe Beer Lambert's law. Explain in detail principle and techniques of colorimeter. 15

Or

Describe in detail uses of radioisotopes in Life Science and Biotechnology. Add a note on units radioactivity. 15

P.T.O.

4. Describe in detail principle and applications of Gel electrophoresis. 15

Or

Describe in detail western blotting technique. Add a note on its applications in Life Science. 15

5. Write short notes on (any *three*) : 15

(*a*) Compound Microscope;

(*b*) Principle and applications of Laminar Air Flow;

(*c*) Radiation hazards and laboratory handling methods;

(*d*) Principle and applications of Centrifuge.

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