

BOTANY PRACTICAL PAPER – 1

Course title	Microbial Diversity, Mycology & Phycology
Course Code	24IBO1P
Course credits	2
Total contact hours	42 Hours
Duration of ESE	3
Formative assessment marks	10 Marks
Summative assessment marks	40 Marks

Experiments

1. Mounting techniques
2. Culture of microbes from air, soil and water. (only demonstration)
Instrument / photographs / culture plates as spotters.(streaking, pour plate, spread plate and drug sensitive test).
3. Study of viral diseases –Leaf curl of Tomato.
4. Study of bacterial diseases – Angular leaf spot of cotton and citrus canker.
5. Gram staining of Bacteria (*Lactobacillus*, *Rhizobium* and negative staining).
6. Calculation of microbial population using Haemocytometer.
7. Study of Cyanobacteria – *Scytonema* and *Anabaena*.
8. Study of the following algal members: - *Chara*, *Hydrodictyon*, *Sargassum* and *Polysiphonia*.
9. Structure reproduction and life cycle of Albugo, Rhizopus, Peziza, Puccinia.

10. Study of Lichens (Types and V.S of Apothecium)

11. Study of Plant diseases- Red rot of Sugarcane, Grain smut of Sorghum,
Koleroga of Areca nut and Tikka disease of ground nut.

ACTIVITY FOR I SEMESTER: Algal collection and Fungal Disease.

REFERENCES

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- 4 Desikachar, T. V. (1959). Cyanophyta, ICAR, New Delhi.
- 5 Fritze, R.E. (1977). Structure and reproduction of Algae Cambridge University Press.
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- 19 Pandey, B.P.(2008). Botany for Degree Students. S Chand & Co. Ltd., New Delhi.
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