

Practical Syllabus

(45 hours)

1. Study of viruses and bacteria using electron micrographs (photographs).
2. Gram staining of Bacteria.
3. Study of symptoms of plant diseases caused by viruses, bacteria, Mycoplasma and fungi:
Viruses: Tobacco mosaic
Bacteria: Angular leaf spot of cotton and Rice tungro.
Mycoplasma: Little leaf of Brinjal and Leaf curl of papaya
Fungi: White rust on Crucifers, Rust on wheat & Tikka disease of Groundnut.
4. Vegetative and reproductive structures of the following taxa:
Algae: Oscillatoria, Nostoc, Volvox, Oedogonium, Chara, Ectocarpus and Polysiphonia.
Fungi: Albugo, Mucor, Saccharomyces, Penicillium, Puccinia and Cercospora
5. Section cutting of diseased material infected by Fungi and identification of pathogens as per theory syllabus. White rust of Crucifers, Rust on wheat & Tikka disease of Groundnut.
6. Lichens: Different types of thalli and their external morphology
7. Examination of important microbial, fungal and algal products:
Biofertilizers, protein capsules, antibiotics, mushrooms, Agar-agar etc.
8. Field visits to places of algal / microbial / fungal interest (e.g. Mushroom cultivation, water bodies).
9. Study of Morphology (vegetative and reproductive structures) and anatomy of the following
Bryophytes: Marchantia, Anthoceros and Polytrichum.
10. Study of Morphology (vegetative and reproductive structures) and anatomy of the following
Pteridophytes: Lycopodium, Equisetum and Marsilea.
11. Study of Anatomical features of Lycopodium stem, Equisetum stem and Marsilea petiole & rhizome by preparing double stained permanent mounts.

Practical Model Paper

Max. Marks: 50

Time : 3 hrs

1. Identify the given components 'A' & 'B' in the algal mixture .
Describe with neat labeled diagrams & give reasons for the classifications. 2 X 4 = 8M
2. Classify the given bacterial culture 'D' using Gram – staining technique. 6M
3. Take a thin transverse section of given diseased material 'E'.
Identify & describe the symptoms caused by the pathogen. 8M
4. Identify the given specimens 'F', 'G' & 'H' by giving reasons .
(Fungal-1, Bacteria-1 & Viral-1) 3 X 2 = 6M
5. Comment on the given slides 'I' & 'J' (Algae-1, Fungi-1) 2 X 4 = 8M
6. Identify the given specimen 'K' & slide 'L' (Bryophytes & Pteridophytes) 2 X 4 = 8M
7. Record & Viva 6M

3 | Page

Sushama





K. Shaila

