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**FACULTY OF SCIENCE**  
**B. Sc. I Year (Practical) Examination**  
**I Semester**  
**Subject: BOTANY**  
**Paper – I**  
**(Microbial Diversity of Lower Plants)**

**PRACTICAL MODEL PAPER**

**Time: 3 Hours}**

**{Max. Marks: 50**

**Note:** Answer **All** questions. Draw well labeled diagrams wherever necessary.

1. Identify the given components 'A' & 'B' in the algal mixture  
Describe with neat labelled diagrams & give reasons for the  
classifications 2x4= 8 M
2. Classify the given bacterial culture 'C' using Gram -  
staining technique 6M
3. Take a thin transverse section of given diseased material  
Identify & describe the symptoms caused by the pathogen  
'D' 8M
4. Identify the given specimens 'E', 'F' & 'G' by giving reasons  
(Fungal- 1, Bacteria -1 & Viral -1)  
3x 2=6 M
5. Comment on the given slides 'H' & 'I' ( Algae -1, Fungi -1 )  
2x4= 8M
6. Identify the given specimen 'J' & slide 'K' ( Bryophytes &  
Pteridophytes )  
2x4= 8M
7. Record 6M

To  
Mr. Navar  
Programmer  
Uploaded  
on website  
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12/12/19

*Ankita*  
Head  
Department of Botany  
Telangana University,  
Dichpally, Nizamabad-503322.  
Telangana State

*[Signature]*  
-10/12/2019  
Chairman  
Board of Studies  
Department of Botany  
Telangana University,  
Dichpally, Nizamabad-503322.  
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**I Semester**  
**Subject: BOTANY**  
**Paper - I**  
**(Microbial Diversity of Lower Plants)**  
**QUESTION BANK**

**Time: 3 Hours}**

**{Max. Marks: 50**

**Note:** Answer **All** questions. Draw well labeled diagrams wherever necessary.

- I.** Identify the algal components (A, B) in the given mixture. Draw labeled diagrams, classify and identify giving important characters [Diagrams - 1; classification - 1; characters - 2] (2x4=8M)  
1. *Oscillatoria* 2. *Nostoc* 3. *Ectocarpus* 4. *Polysiphonia*  
5. *Volvox* 6. *Oedogonium* 7. *Chara*
- II.** Describe the procedure of bacterial staining and identify the given Bacterium (C) [Procedure - 2½; Description - 2½; Identification - 1] Curd (*Lactobacillus*, Gram positive) (6M)
- III.** Prepare T.S. of the diseased material as a temporary mount (D). Identify the pathogen giving reasons and describe with the help of diagrams. (Preparation - 2; Identification - 3; Diagram - 1; Description - 1; Classification - 1) (8M)  
1. White rust on crucifers  
2. Rust on Wheat  
3. Tikka disease of groundnut
- IV.** Identify giving reasons the specimens (E, F, G) (Fungal - 1, Bacterial-1, Viral-1,) (3x2=6M)  
1. White rust of Crucifer  
2. Wheat Rust  
3. Tikka disease of groundnut  
4. Angular leaf spot of cotton  
5. Tobacco mosaic  
6. Papaya leaf curl  
7. Rice tungro
- V.** Identify giving reasons the specimens (H, I) (2X4=8M) (Algae -1; Fungi -1)  
1. *Oscillatoria* 7. *Mucor*  
2. *Nostoc* 8. *Penicillium*  
3. *Volvox* 9. *Puccinia*  
4. *Chara* 10. *Saccharomyces*  
5. *Oedogonium* 11. *Cercospora*  
6. *Albugo*
- VI.** Identify the given specimen (Bryophytes: J) & slide (Pteridophytes: K) (2X4=8M)  
1. *Marchantia* 2. *Anthoceros* 3. *Polytrichum*  
4. *Equisetum* 5. *Lycopodium* 6. *Marselia*
- VII.** Record (6M)

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*Anil Kumar*  
**Head**  
Department of Botany  
Telangana University,  
Dichpally, Nizamabad-503322,  
Telangana State

*[Signature]*  
**Chairman**  
Board of Studies  
Department of Botany  
Telangana University,  
Dichpally, Nizamabad-503322,  
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