



‘समानो मन्त्रः समितिः समानी’

**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours 1st Semester Examination, 2022

**GE1-P1-MICROBIOLOGY (1.1 & 2.1) (INSTRUCTION)**

Time Allotted: 4 Hours

Full Marks: 20

**INSTRUCTION TO THE EXAMINERS**

**PAPER-1.1**

1. Supply permanent slides for (A, B)  
Supply photographs for (C, D)  
A – *Rhizopus*  
B – *Spirogyra*  
C – *Amoeba*  
D - *Paramecium*
2. Supply necessary equipments, chemicals, and glasswares for preparation of Nutrient agar plates by the students.  
Each student may expose the sterile nutrient agar plates in air for specific time intervals (5/10/15 mins) (Any one)  
Comment on observed growth of microbes.

**PAPER-2.1**

1. (A) Provide (AS inoculum) overnight grown nutrient broth culture of *E.coli* to each student.  
(B) Supply sterilized 10 ml Nutrient Broth (NB) culture to each student as following:  
Nutrient broth (10 ml) having pH = 5  
Nutrient broth (10 ml) having pH = 7  
Nutrient broth (10 ml) having pH = 9  
(C) Provide the sensitive colorimeter to take bacterial growth OD.  
(D) Supply the other necessary reagents, instruments, glassware etc. to conduct this practical aseptically and properly.
2. Provide the growth OD (turbidimetric) Data of *E.coli* grown in Nutrient broth culture.

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