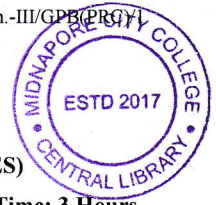


**M.Sc. Semester-III Examination, 2022**  
(Agriculture) in **Genetics and Plant Breeding**  
PAPER: PGS-303 (Practical)

**(BASIC CONCEPTS OF LABORATORY TECHNIQUES)**

**Full Marks: 30**

**Time: 3 Hours**



1. Attempt any **THREE** from the following question **3 x 5 = 15**
  - a. Enlist various rules for handling of chemicals and it's safely.
  - b. Enlist rules for using microscope.
  - c. What is the function of laboratory water bath and enlist various precautions should be taken when handling a water bath?
  - d. Identify different types of meteorology, microbiology, and biochemistry instruments.
  
2. Attempt any **ONE** from the following question **1 x 10 =10**
  - a. Cultivation of cabbage is the recommended dose of fertilizer (NPK) is 150: 60:50 kg per ha. Calculate the how much Urea, SSP and MOP will be required for this cultivation.
  - b. Cultivation of Rice is the recommended dose of fertilizer (NPK) is 130: 60:60 kg per ha. Calculate the how much DAP, Urea and MOP will be required for this cultivation.
  
3. Attempt any **TWO** from the following question **2 x 10 = 20**
  - a. Classify Basic Laboratory Procedures which you follow during laboratory works.
  - b. Briefly explain various types of glassware and guide to cleaning glassware.
  - c. Illustrate different types of microscope and their working principles and also enlist simple microscope parts.
  
4. Attempt any **TWO** from the following question **2 x 10 = 20**
  - a. Estimation of soil EC and P<sup>H</sup>
  - b. Preparation of Buffer solution.
  - c. Estimation of chlorophyll.
  
5. Attending of Viva-voce **10**
6. Practical Note book **05**

\*\*\*\*\*