

U.G. 6th Semester Examination-2021**BOTANY****[HONOURS]****Discipline Specific Elective (DSE)****Course Code : BOT-H-DSE-T-04A****(Research Methodology)**

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** of the following: 2×5=10
- a) What do you mean by research?
 - b) What is foolproof label on reagent bottle? Write an example.
 - c) Define normal solution.
 - d) What is primary data?
 - e) Why scale bars are used in imaging?
 - f) Why grades of alcohol are used in series before making a permanent mount?
 - g) What is the need of writing References after scientific writing?

- h) What is plagiarism?
2. Answer any **two** of the following: 5×2=10
- a) Write the usefulness of “Review of Literature” in a scientific writing.
 - b) How will you prepare:
 - i) 150 ml of 0.2 Molal Sucrose (MW 342) solution?
 - ii) 100 ml of 30% ethanol from 50% ethanol stock?
 - c) Name five toxic chemicals used in Botany Laboratory. What safety measures will you take to handle them?
 - d) How will you prepare 100 ml each of 2% acetocarmine solution and 10% Sulphuric acid solution (from 98% H₂SO₄)?
3. Answer any **two** of the following: 10×2=20
- a) What is graph? Write with sketches different types of graphs. Mention advantages and disadvantages of each type.
 - b) What steps would you follow to write a paper in a scientific journal? Briefly write the justification of each step.

- c) If you want to study the chromosome of a vegetative cell, what steps would you follow? Justify each step.
- d) Write briefly about the key research areas of Botany.
