



PG (Agriculture)
M.SC. Semester- III Examination, 2023
GENETICS AND PLANT BREEDING
PAPER: PGS 505 (Theory)
(AGRICULTURAL RESEARCH, RESEARCH ETHICS & RURAL DEVELOPMENT)
Full Marks: 50 **Time: 2 Hours**

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

GROUP-A

1. Answer any **FIVE** of the following questions: 2×5=10
- a) What is Permaculture / Jhoom Cultivation?
 - b) Which crop was cultivated first in the world?
 - c) What is the major problem in agriculture – Environment, Production, or Yield?
 - d) Why India needs food security?
 - e) What is NARS, IARC, and CGIAR?
 - f) Is there any need of Research Integrity?
 - g) Why livelihood status of farmers should be increased?
 - h) Why there is a need of rural development for a developed nation?

GROUP-B

2. Answer any **FOUR** of the following questions: 5×4=20
- a) Briefly discuss on ethical conduct of agricultural research.
 - b) Explain the mandates of ICAR.
 - c) Briefly highlights standards and problems in research ethics.
 - d) Narrate the need, scope & opportunities of global agricultural research system (GARS).
 - e) State the role of GARS in promoting food security, reducing poverty and protecting the environment.
 - f) State the role of IARC with NARS as partnership in the global agricultural research system, strengthening capacities at national and regional levels and available International fellowships for scientific mobility.

GROUP-C

3. Answer any **TWO** of the following questions: 10×2=20
- a) Mention various strategies and policies implemented for rural development.
 - b) What are the guiding principles of community development? What are the activities of Community Development Programme? 4+6
 - c) State in brief the development of Indian agriculture from Permaculture to Modern sustainable green Agriculture
 - d) Write in brief the importance related to organization and functioning of agricultural research systems at national and international levels to develop livelihood status of rural people.
