

**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, ODISHA, GUNUPUR  
(GIET UNIVERSITY)**



B. Sc. (Ag.)(First Semester - Regular) Examinations, February – 2025

**AG-111 – Fundamentals of Agronomy**

Time: 2 hrs

Maximum: 40 Marks

**Answer ALL questions**

**(The figures in the right hand margin indicate marks)**

**PART – A**

**(2 x 5 = 10 Marks)**

Q.1. Answer **ALL** questions.

- Classify Tillage based on CRIDA.
- Difference between PWP and UWP.
- List the number of agro-climatic zones are present in India & Odisha and state “Rayagada “comes under which agro-climatic zone?
- Define Sustainable Agriculture. Write the differences between sustainable and conventional farming.
- Difference between mass flow & diffusion.

**PART – B**

**(6 x 5=30 Marks)**

Answer **ANY SIX** questions.

Marks

- |  |   |
|--|---|
| 2. Write short notes on  | 5 |
| a) conservation tillage    b) role of phosphorus in plants   |   |
| 3. a) Enlist the different methods of sowing crops. Write down the advantages and disadvantages of Broadcasting.     | 5 |
| b) Classify the nutrients based on mobility in soil and plant.   |   |
| 4. a) What is the difference between intercropping and mixed cropping.   | 5 |
| b) Write down the cultural methods of weed control.  |   |
| 5. a) Define soil moisture constant. Write down the different constant along with their soil water potential values. | 5 |
| b) Explain NUE. Compare agronomic use efficiency with physiological use efficiency.                                  |   |
| 6. a) Compare INM with chemical farming by considering the ill effects of inorganic fertilizer.                      | 5 |
| b) Enlist the role of Agronomist.  |   |
| 7. Differentiate between –   | 5 |
| a. green manuring and green leaf manuring.   |   |
| b. Bulky organic manure and concentrated organic manure  |   |
| 8. Explain the factors affecting plant growth by brief explanation on growth curve.                                  | 5 |
| 9. a) Briefly explain the C3 cycle with diagrams.  | 5 |
| b) Write short notes on i) primary pollutant   |   |
| ii) secondary pollutant  |   |

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