



KERALA AGRICULTURAL UNIVERSITY
B. Tech. (Agrl. Engg.) 2022 Admission
I Semester Final Examination – March 2023

Sacs.1105

Principles of Agronomy (2+0)

Marks: 50
Time: 2 hours

I Match the following (10x1=10)

	Column A	Column B
1.	Indian Institute of Pulses Research (IIPR)	Fertilizer
2.	Father of Green revolution in India	Kanpur
3.	Grey revolution	Dehradun
4.	Central Soil and Water Conservation Research & Training Institute (CSWCRTI)	Hyderabad
5.	Central Research Institute of Dryland Agriculture (CRIDA)	M.S. Swaminathan

State True or False

6. Boron (B) is very mobile in plant system.
7. In leguminous crops Phosphorus induces *rhizobium* activity and nodule formation
8. Sowing with the help of seed drill always gives a square planting pattern.
9. Hard fruit of citrus is due to Manganese (Mn) deficiency.
10. Stunted growth and chlorosis is the deficiency symptom of potassium (K)

II Write short notes on ANY FIVE of the following (5x2=10)

1. Water use efficiency
2. Inter cropping system
3. Depth of sowing
4. Vermiwash
5. Relay cropping
6. Green manuring *in situ*
7. Weeds classification based on ontogeny

III Answer ANY FIVE of the following (5x4=20)

1. Define sustainable agriculture. Write some advantages of sustainable agriculture.
2. Mention the critical stages of irrigation in the following crops:
 - (a) Wheat
 - (b) Maize
 - (c) Potato
 - (d) Rice
3. What is biofertilizers? What are the types of biofertilizers?
4. What is the difference between tillage and tilth. State the objectives of tillage.
5. Define Farming System. Write a few long term advantages of Integrated Farming System.
6. Explain the different methods of seed sowing.
7. What is Integrated Weed Management (IWM)? Write down the preventive measures to manage weed problem.

IV

Write an essay on ANY ONE of the following

(1x10=10)

1. Paddy cultivation techniques (land preparation, transplanting, nutrient management, weed management and water management)
2. Define plant essential nutrients and classify them. State the criteria of essentiality given by Arnon (1954). Write the functions of N, P and K in plant life.
