



GIET UNIVERSITY, GUNUPUR – 765022
B. Sc. (Ag.) (First Semester) Examinations, January – 2024
AG-111 – Fundamentals of Agronomy

Time: 2 hrs

Maximum : 50 Marks

The figures in the right hand margin indicate marks.

PART – A

Q.1. Fill in the blanks with suitable word / figure.

(0.5 x 10 = 5 Marks)

- a. The Book “Horse Hoeing Husbandary” was written by _____
- b. The physical manipulation of soil with tools and implements is called as _____
- c. The criteria for essentiality of nutrients was given by _____
- d. _____ is the example of green manure crop
- e. _____ is example of total root parasite.
- f. Breeder seeds have _____ coloured tag.
- g. The term tillage has been derived from _____ language.
- h. Direct method of soil moisture estimation is _____
- i. The energy status of water at field capacity in Mpa _____
- j. _____ is the most easiest and cheapest method of sowing.

Q. 2. Define (or) Explain the following in one or two sentences.

(1 x 5 = 5 Marks)

- a. Crop development
- b. Harvesting
- c. Green manuring
- d. Stratification
- e. manures

Q3. Match the following

(0.5 x 10 = 5 Marks)

Column – A		Column – B	
(a)	Nitrogen	(i)	46% N
(b)	MOP	(ii)	Root development
(c)	Urea	(iii)	16 % P ₂ O ₅
(d)	Father of agronomy	(iv)	Vegetative growth
(e)	Limited growth	(v)	Indeterminate
(f)	Father of tillage	(vi)	60% K
(g)	potash	(vii)	Determinate
(h)	SSP	(viii)	Luxury consumption
(i)	Unlimited growth	(ix)	Peter de cresenzi
(j)	phosphorus	(x)	Jethro Tull

Q4. Write True or False against each statement

(0.5 x 10 = 5 Marks)

- a. Good soil structure for crop production is granular and crumbly.
- b. The branch of Agriculture which deals with the principles and practices of crop production and field management is Agro- Meteorology.
- c. Year round tillage is one where operations are done throughout the year.
- d. Potassium increases the disease resistance in plants.
- e. The mechanical manipulation of soil with tools and implements is called as tith.
- f. The main advantage of growing leguminous crops with non-leguminous crops is to enhance soil fertility.
- g. The rapid period of growth is lag phase.
- h. Nitrogen deficiency symptoms are first observed in older leaves.
- i. Weed competition and non-uniform plant growth is seen more in line sowing.
- j. The plant will eventually die at PWP.

PART – B

Attempt ANY FIVE questions. All question carries equal marks

(6 x 5 = 30 Marks)

- 5. What is tillage? Enlist the objectives of tillage.
- 6. What do you mean by crop geometry? Explain different types of crop geometry.
- 7. Differentiate between-
 - (i) Manures and Fertilizers
 - (ii) Green manures and Green leaf manures
- 8. i) Define WUE? Write the different management practices to improve WUE. (4 marks)
ii) Answer the critical stage of irrigation: rice, maize, wheat, cotton. (2 marks)
- 9. What do you mean by Plant Growth? Draw the Growth curve and mention the phases. Briefly mention different PGRs and its role in plant?
- 10. Define Crop rotation with examples. Enlist the advantages of Crop rotation.

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