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GIET UNIVERSITY, GUNUPUR – 765022
B. Sc. (Ag.)(First Semester) Examinations, March – 2023
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 word 'Agriculture' is derived from _____ language.
- b. Dormancy due to hard or impermeable seed coat can be broken by _____ method
- c. Nitrogen deficiency first appears in _____ leaves
- d. Father of tillage is _____
- e. The mechanical manipulation of soil with tools and implements is called as _____
- f. Any material used for sowing or planting for crop propagation is called as _____
- g. The term weed was 1st time coined by _____
- h. Presence of parasitic weed _____ reduces sugarcane juice quality.
- i. 2,4-D is a _____ herbicide.
- j. _____ is the sequence of Seed treatment

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

(1 x 5 = 5 Marks)

- a. Epigeal Germination
- b. Plant population
- c. Plant Growth
- d. Complex fertilizer
- e. Imbibition

Q3. Match the following

(0.5 x 10 = 5 Marks)

Column – A		Column – B	
(a)	Fe	(i)	Micronutrient
(b)	N	(ii)	Rhizobium
(c)	MOP	(iii)	Potash
(d)	N fixation	(iv)	Macronutrient
(e)	Urea	(v)	Phosphorus
(f)	Vegetative growth	(vi)	21% N
(g)	Luxury consumption	(vii)	Nitrogen
(h)	Ammonium Sulfate	(viii)	46% N
(i)	SSP	(ix)	60% K ₂ O
(j)	Root formation	(x)	16% P ₂ O ₅

Q4. Write True or False against each statement

(0.5 x 10 = 5 Marks)

- a. Dibbling method of seed sowing is also known as random sowing method.
- b. The seeds are alive but cannot germinate under favourable environmental conditions is known as Seed Viability.
- c. Capillary and non-capillary pores must be in equal proportion for good crop production.
- d. DAP stands for Diammonium Phosphate.
- e. Source of Black water is soil moisture and water inside plants
- f. Jethro Tull is known as Father of Agronomy
- g. The bacterium responsible for Nitrogen fixation is Rhizobium.
- h. Harrow is example of primary tillage implement.
- i. Bulk density of tilled soil is less than untilled soil.
- j. Sprinkler irrigation is best suited for sandy soil.

PART – B

Attempt ANY FIVE questions

(6 x 5 = 30 Marks)

5. Define tillage and tilth. Enlist the objectives of tillage. Describe effect of tillage operations on Soil properties?
6. Define weed? Classify herbicide based on time of application and selectivity with suitable examples?
7. What is Fertigation? Write down different methods of surface irrigation?
8. State the constraints of acid soil. How can you mitigate it and state the benefits of lime application.
9. What is Biofertilizer? Write down the classification of Biofertilizer with examples?
10. Define Seed Dormancy and elaborate its types in details?

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