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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech II Year II Semester Supplementary Examinations February-2022

PRINCIPLES OF AGRONOMY & SOIL SCIENCE

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a Explain in detail the different types of sowing methods. 6M
b What are the disadvantages of High External Input Agriculture? 6M

OR

- 2 a Define Agriculture, Agronomy and Tillage. 6M
b Classify the crops based on Ontogeny and Season. 6M

UNIT-II

- 3 a Explain briefly in key elements in Weed Management. 6M
b Write in detail about SPAC with neat diagram. 6M

OR

- 4 a Define crop rotation and its characteristics. 6M
b Define Crop Rotation and its Characteristics. 6M

UNIT-III

- 5 a Explain the chemical weathering process of Rocks and Minerals. 6M
b Write the passive factors of soil formation. 6M

OR

- 6 a List out the soil orders and write the properties of Vertisols. 6M
b Write the properties of soil separates (sand, silt and clay). 6M

UNIT-IV

- 7 a Differentiate between Laterization and Podzolization. 6M
b Explain reclamation of salt affected soils with suitable chemical reactions. 6M

OR

- 8 a Write the importance of CEC. 6M
b Write a note on C:N ratio. 6M

UNIT-V

- 9 a Write the functions and deficiency symptoms of N and P in plants. 6M
b List out the criteria for evaluation of irrigation water and explain any six of them. 6M

OR

- 10 a Explain how to determine Gypsum requirement for reclamation of sodic soils. 6M
b Distinguish between inorganic fertilizers and organic manures. 6M

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