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

B.Tech II Year II Semester Regular Examinations July-2021

PRINCIPLES OF AGRONOMY & SOIL SCIENCE

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

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|---|---|----|----|
| 1 | a Explain the Advantages and Disadvantages of Organic Farming | L1 | 6M |
| | b Compare Sustainable Agriculture and Modern Agriculture | L2 | 6M |

OR

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|---|---|----|----|
| 2 | a Explain in detail the Off-Season Tillage | L5 | 6M |
| | b Discuss the effect of Climatic Factors on Crop Growth | L6 | 6M |

UNIT-II

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|---|--|----|----|
| 3 | a Define Parallel cropping and Companion cropping? What are the advantages and disadvantages of Intercropping? | L1 | 6M |
| | b Discuss Multi-tier Cropping System with examples and neat labelled diagram | L4 | 6M |

OR

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|---|--|----|----|
| 4 | a Describe the soil properties influencing root development and effective root zone depth. | L2 | 6M |
| | b Write physical classification of soil water | L1 | 6M |

UNIT-III

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|---|---|----|----|
| 5 | a Write classification of soil structure | L2 | 6M |
| | b List out the soil orders and write the properties of Alfisols | L2 | 6M |

OR

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|---|---|----|----|
| 6 | a Write the classification of minerals with examples | L1 | 6M |
| | b Enlist weathering process and describe physical weathering process. | L3 | 6M |

UNIT-IV

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|---|---|----|----|
| 7 | a Write in detail the sources of soil Acidity | L2 | 6M |
| | b Write the properties of soil colloid | L1 | 6M |

OR

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|---|---|----|----|
| 8 | a Write the role of organic matter in soil fertility | L2 | 6M |
| | b Justify why Gypsum is not considered as a Liming material and explain the types of Slags. | L5 | 6M |

UNIT-V

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|---|---|----|----|
| 9 | a List out the functions of Zinc, Boron and Molybdenum micro nutrients. | L2 | 6M |
| | b Explain about Phosphatic fertilizers. | L1 | 6M |

OR

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|----|--|----|----|
| 10 | a Classify irrigation water based on EC, SAR and RSC. | L4 | 6M |
| | b Distinguish between inorganic fertilizers and organic manures. | L4 | 6M |

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