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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)**B.Tech II Year II Semester Regular Examinations May 2019****PRINCIPLES OF AGRONOMY AND SOIL SCIENCE**

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)**UNIT-I**

- 1 a Write about the advantages and disadvantages of Organic Farming. 8M  
b Principles of Organic Farming. 4M

**OR**

- 2 a Define Tillage? Explain in detail about different types of tillage. 8M  
b Enumerate the objectives of tillage. 4M

**UNIT-II**

- 3 a Explain different types of irrigation methods. 8M  
b Differentiate between irrigation frequency and irrigation period. 4M

**OR**

- 4 a Define Weed? Write about characteristics of weed. 8M  
b Enumerate the principles of weed management. 4M

**UNIT-III**

- 5 a Enumerate the classification of rocks with suitable examples under each category. 7M  
b Differentiate between physical weathering and chemical weathering. 5M

**OR**

- 6 a Define Weathering? Explain about different weathering rocks. 8M  
b Enumerate different types of soil orders. 4M

**UNIT-IV**

- 7 a Describe the role of organic matter. 5M  
b List out factors affecting decomposition. 7M

**OR**

- 8 a Define CEC of soils? Explain the factors influencing CEC of soils. 7M  
b Differentiate between the organic and inorganic colloids. 5M

**UNIT-V**

- 9 a Determine the quality of irrigation water and importance. 7M  
b Explain about essential plant nutrients. 5M

**OR**

- 10 a Explain the liquid fertilizers and water soluble fertilizers. 7M  
b Difference between the Saline and Sodic soils. Write briefly their management. 5M

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