

Code No: R161220

R16**SET 1****I B. Tech II Semester Regular/Supplementary Examinations, April/May - 2018****PRINCIPLES OF SOIL SCIENCE AND AGRONOMY**

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer **ALL** the question in **Part-A**3. Answer any **FOUR** Questions from **Part-B**

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**PART -A**

1. a) Differentiate between Active soil factors vs Passive soil factors. (2M)
- b) Classify the quality of irrigation water based on SAR. (2M)
- c) Write important properties of alluvial and black soils. (2M)
- d) Write the characteristic of good seed bed. (2M)
- e) Classify rocks based on mode of formation. (2M)
- f) Mention agents of physical weathering. (2M)
- g) Differentiate between Eluviation and Illuviation. (2M)

**PART -B**

2. a) Define soil profile. Describe the soil profile and its development. (8M)
- b) What are the different steps involved in soil formation process? (6M)
3. a) How do you classify rocks on the basis of origin? Explain any two. (8M)
- b) Write the importance of soil profile study. Enlist different horizons in the soil profile. (6M)
4. a) Write important soil groups of India and their characteristics. (10M)
- b) Write the practical utility of Agricultural meteorology. (4M)
5. a) Define weed. How the weeds influence crop Production? (6M)
- b) Enlist different kinds of Soil erosion. Describe any two erosion preventing measures in detail. (8M)
6. a) Define Agro climatology. Write the composition and structure of atmosphere with neat graph. (10M)
- b) Explain briefly the role of weather on crop production. (4M)
7. a) Write different steps evolved in solubilization of phosphorus and sulphur in soils. (6M)
- b) How do you reclaim saline and alkali soils? (8M)