

**M.Sc. Examination 2018**  
**Semester-I**  
**Environmental Science**  
**Course : MEC-13**  
**(Principles of Soil Science)**

**Time : 3 Hours**

**Full Marks : 40**

Questions are of value as indicated in the margin

Answer question No. **1** and **any four** from the rest.

1. Write short notes on **any four** of the following. 2×4=8
    - a) Humus
    - b) Biochemical weathering
    - c) ESP and SAR
    - d) Soil acidity
    - e) C:N ratio
    - f) Cation exchange capacity
  2. Enumerate the USDA classification of soil. Discuss any three orders in detail. 2+6=8
  3. What are the major secondary minerals? Discuss the types of silicate minerals with suitable examples. 1+7=8
  4. Give notes on a) Soil texture b) Soil structure c) Soil density and d) Porosity 2×4=8
  5. Discuss the problems of K and P in soil. What are the factors which influence the mobility of P in soil. (2+2)+4=8
  6. Give short notes on : a) Quartz b) Ferromagnesians c) Mica d) Feldspar 2×4=8
  7. What are the various types of soil found in West Bengal? Discuss the formation, chemical property and ways to improve the productivity of soil found in Birbhum. 2+(2+2+2)=8
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