

- a) Jenny
 c) Simonson
 b) Dockuchaiev
 d) Liebig
- (x) The grouping of soil based on the landscape characteristics and geomorphic patterns comes under the classification of
 a) Physiographic
 c) Physical
 b) Geologic
 d) Chemical
- (xi) Identify the lowest category of Soil Taxonomy
 a) Order
 c) Family
 b) Suborder
 d) Series
- (xii) Who developed International pipette method of soil texture determination?
 a) G W Robinson
 c) V V Dockuchaiev
 b) A H M Andreasen
 d) G. Bouyoucos
- (xiii) Select the names of soil having at least 35% clay separate
 a) Sandy soil
 c) Clay soil
 b) Silty soil
 d) Loam soil
- (xiv) Which mineral is most resistant to weathering?
 a) Quartz
 c) Pyroxene
 b) Olivine
 d) Amphibole
- (xv) Select the range of bulk density (BD) which limits the root growth (g/cc)?
 a) 1.5
 c) 1.7
 b) 1.6
 d) 1.8
- (xvi) Outline the base saturation percentage of Alfisols
 a) >35%
 c) >15%
 b) >10%
 d) >20%
- (xvii) Which of the following cation has the tendency to disperse soil particles?
 a) Sodium
 c) Calcium
 b) Potassium
 d) Magnesium
- (xviii) As per USDA, outline the number of soil textural classes
 a) 10
 c) 12
 b) 11
 d) 14
- (xix) Which of the following soil textural class are coarser
 a) Clay loam
 c) Loamy sand
 b) Sandy loam
 d) Silty loam
- (xx) The law which states water flow in soil is
 a) Stokes law
 c) Ficks law
 b) Darcy law
 d) Graham law

Group-B

(Short Answer Type Questions)

2.5 x
 10=25

2. Briefly explain about physical weathering. (2.5)
3. Outline five different functions of soils (2.5)
4. Outline the role of relief or topography in soil formation. (2.5)
5. Classify igneous rocks with examples (2.5)
6. Identify different types of pedoturbation (2.5)
7. Identify the characteristics of Histosols order of soil (2.5)
8. Outline the salient characteristics of International pipette method of soil texture determination (2.5)
9. Identify different characteristics of Red soils of India (2.5)
10. Explain A and B horizon present in soil profile. (2.5)
11. Distinguish between soil texture and soil structure (2.5)

OR

Compare the process of eluviation with illuviation

(2.5)

Group-C

(Long Answer Type Questions)

5 x 1=5

12. Elaborate the structure of vermiculite with diagram

(5)

OR

Elaborate the various processes of chemical weathering

(5)

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Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125