CHAPTER 12

A list of bullet points with important information is given to help you learn the subject matter of this chapter.

1. The important factors in soil formation are the: (1) parent material; (2) climate; (3) vegetation; (4) slope; (5) time.
2. Decomposition of feldspar leads to the formation of clay.
3. Intense chemical weathering in humid, tropical climates may lead to the development of soils called laterites that are composed primarily of iron oxides.
4. Intense chemical weathering in humid, tropical climates may lead to the development of soils called bauxites that are composed primarily of aluminum oxides.
5. The humus that accumulates in rich soils is composed of vegetable matter.
7. Red colors in soils generally are caused by the presence of iron oxides.
8. The soils that lack any developed horizons within them are known as entisols.
9. The soils that contain large amounts of organic matter such as peat in their upper layers are known as histosols.
10. The soils that are commonly developed under deciduous forests and that have clay-rich B horizons are known as alfisols.
11. The soils that develop under temperature grasslands with a thick, dark organic-rich surface layer are known as mollisols.
12. The soils that develop in dry climates with accumulations of salt, sulfates, and carbonates are known as aridosol.
13. Desert soils are estimated to cover 17 percentage of the Earth’s land surface.
14. The principal cause of desertification is overgrazing and wood cutting.
15. The country most famous for its recovery of 20% of its land area from beneath the sea is The Netherlands.
16. A natural lump of material in a soil is called a ped.
17. The “seventh approximation” refers to a soil classification system.
18. The thick, dark, organic-rich soils of temperate grasslands are called mollisols.
19. The elements added in substantial amounts to soils as fertilizers are nitrogen, phosphorus and potassium.
20. The material being removed from the Amazon River drainage basin is 780 million metric tons.
21. The name given to a surface coating on a planet that is not a true soil (being devoid of living matter as on the moon or Mars) is a regolith.
22. A lateritic soil is rich in iron.
23. The taking up of hydrocarbon molecules or metal atoms into minerals in soils is called chelation.
24. Muskeg is a thick, surficial accumulation of peat.
25. Base cations in soils include: (1) Ca²⁺; (2) Na⁺.
26. Soils develop as a result of the combined effects of: (1)* chemical and mechanical weathering.
27. The A layer in a soil is a zone in which soluble constituents are leached.
28. The most important minerals in soils are clays.
29. Laterites are a special kind of oxisol.
30. Caliche is a layer of calcite found at the top of the C zone in a soil.
31. Ion exchange, a property of soil clays, is a process that makes fertilizer elements available to plants.
32. Through the high Sierra and high Rocky Mountains, the main soils are entisols.
33. Tropical soils are: (1) generally very poor because they are so highly leached by rainfall, and (2) are commonly enriched in iron and aluminum.
34.- In the weathering of granite (and many other crystalline rocks) to form a soil, the original quartz grains become residual quartz grains.
35.- In the weathering of granite (and many other crystalline rocks) to form a soil, the original feldspar grains become clays.
36.- The "Dust Bowl" in the central United States in the 1930s: (1) was caused primarily by an extended period of low rainfall (2) was aggravated by farming practices, and (3) caused many farmers to leave the area.
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