

WORLD SOIL DAY CELEBRATIONS

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7. QUIZ CONTEST ON SOIL SCIENCE

A Quiz contest was conducted as part of the **WORLD SOIL DAY CELEBRATIONS** held in Department of Geography & Geoinformatics, Bangalore University, Bengaluru ,India. About 120 students at graduate and post graduate level participated in the quiz programme. The questions were designed to test the general knowledge on soil, and the role of soil in overall development of a region. The list of questions are as under.

1. Pick up the clay soil group which does not swell when wet from the following :

- Vermiculite group
- Kaolinite group
- Mite group
- Montrorillonite group.

2. In a liquid limit test, the moisture content at 10 blows was 70% and that at 100 blows was 20%. The liquid limit of the soil, is

- 65%
- 35%
- 50%
- None of these.

3. The water content of soil is defined as the ratio of

- Weight of water to weight of solids of given mass of soil.
- Volume of water to volume of given soil
- Volume of water to volume of voids in soil
- Weight of water to weight of air in voids

4. The internal molecular attraction of a soil, the cohesion

- Is more in well compacted clays
- Decreases as the moisture content increases
- Depends upon the external applied load.

4. Increases as the moisture content decreases

5. Which one of the following statements is true ?

1. Clays are more porous than sands
2. All
3. Pressure of organic matter in a soil decreases the bearing capacity of the soil
4. Aluminous cement is used for foundations in soils with chemical deposits

6. Accurate determination of water content, is made by

1. Calcium carbide method
2. Alcohol method
3. oven-drying method.
4. Sand bath method

7. Minimum size of the particles of silt soil, is

1. 1 mm
2. 0.002 mm
3. 0.06 mm.
4. 0.04 mm

8. The ratio of the volume of voids to the volume of soil solids in a given soil mass, is known

1. Water content.
2. Void ratio
3. Porosity
4. Specific gravity

9. The liquid limit and plastic limit exist in

1. gravel soils
2. clay soils.
3. sandy soils
4. silty soils

10. What is aa soil horizon?

- a) A factor influencing how soil is formed
- b) A layer of soil
- c) An organism found within the soil
- d) A technique used to map soils

11. Which three layers form the soil profile?

- a) Air, water and soil
- b) Minerals, organic matter and living organisms
- c) Clay, silt and sand
- d) The topsoil, subsoil and parent material

12. How does a 'sandy' soil feel like to touch?

- a) Sticky
- b) Gritty
- c) Smooth
- d) none of these

13. Why is organic matter (humus) an important part of soil?

- a) It helps to improve water infiltration
- b) It can break down organic pollutants
- c) It converts nitrogen in the air into nitrates used by plants
- d) It is rich in nutrients, which is important for fertility

14. Which of the following is NOT a common reason why soil maps are used?

- a) To determine the land drainage capabilities of an area
- b) To determine the suitability of soils for particular crops
- c) To identify soils and their properties
- d) To record how soils are used by people

15. Approximately how many micro-organisms can be found in a teaspoonful of soil?

- a) 4 billion
- b) 50 million

- c) 500,000
- d) 1000

16. Which of the following creatures will you NOT find in the soil?

- a) Earthworm
- b) Springtail
- c) Mite
- d) Lemur

17. Which of the following is NOT a threat commonly faced by soils?

- a) Soil erosion
- b) Percolation
- c) Deforestation
- d) Climate change

18. What is soil erosion?

- a) It is the process by which soil is formed
- b) A harmful process that involves the removal and transport of soil by wind and water
- c) A natural method of filtering harmful pollutants
- d) A process often referred to as the 'greenhouse' effect

19. What effect can soil have on health if eaten or inhaled?

- a) Nothing - it is perfectly safe
- b) It can be good for your health
- c) It can have serious health implications such as cancer

20. Which of the following pH values represents a neutral condition?

- A. 5.0
- B. 1.0
- C. 6.0
- D. 10

21. Most (usually 80% or more) of soil potassium and calcium can be found in the form of

_____.

- A. Structural components of minerals
- B. Exchangeable ions
- C. Organic compounds
- D. Dissolved substances

22. Physical weathering _____.

- A. Leads to the formation of clay mineral particles
- B. Increases the surface area of soil minerals
- C. Releases essential plant nutrients
- D. Is the result of water mixing with the carbon dioxide respired by plants and microorganisms

23. What soil is coarse and drains quickly?

- A. Sand
- B. Clay
- C. Fruit
- D. Loam

24. What soil is red and brown in color and holds water?

- A. Sand
- B. Clay
- C. Igneous Rock
- D. Humus

25. Loam is used to help grow _____.

- A. Animals
- B. Kids
- C. Fruits and Vegetables
- D. Toys

26. Where is silt usually found?

- A. Near farms
- B. Near a body of water
- C. In a rock
- D. Beaches

27. Humus is found in _____?

- A. Top Soil
- B. Oceans
- C. Houses
- D. Rocks

28. What soil is made of broken down pieces of dead plants and animals?

- A. Clay
- B. Minerals
- C. Sand
- D. Humus

29. What soil can be used to make pottery?

- A. Potting Soil
- B. Rocks
- C. Sand
- D. Clay

30. Deccan plateau in India contains....

- Black soil
- red Soil
- Brown Soil
- None of these

Three winners were selected based on the performance and it was noticed that the average score was ranging from 60 percent to 85 percent. The quiz programme was actively participated by the students and led to a good level of awareness creation.

A photograph of the Quiz Contest on Soil Science is given below.

