

Unit 5 - Week 3

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Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-07, 23:59 IST.

1) What are the functions of soil organic matter (SOM)? 1 point

- a. Improves soil structure
- b. Improves soil water holding capacity
- c. Improves soil aeration
- d. All of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d.

2) Which of the following soils have more organic matter content? 1 point

- a. Sandy soil
- b. Clayey soil
- c. Both a and b has equal amounts of organic matter
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

3) Soil organic carbon (SOC) pool decreases due to _____? 1 point

- a. Mineralization of SOC
- b. Demineralization of SOC
- c. Hydrolysis of SOC
- d. All of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

4) Fulvic acid is a _____? 1 point

- a. Clay
- b. Mineral
- c. Humic substance
- d. Non-humic substance

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

5) Which is an intermediate product in polyphenol theory of humic substance formation? 1 point

- a. Carbohydrates
- b. Sugars
- c. Quinones
- d. Fats

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

6) What colour does humin appears? 1 point

- a. Light yellow
- b. Dark yellow
- c. Red
- d. Black

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d.

7) Which of the following is soluble in acid? 1 point

- a. Humic acid
- b. Fulvic acid
- c. Humin
- d. Both a and b

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

8) The structure of humic substances is _____? 1 point

- a. Homogeneous
- b. Simple
- c. Heterogeneous
- d. Both a and b

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

9) At pH>3, Soil organic matter is _____? 1 point

- a. Neutral
- b. Negatively charged
- c. Positively charged
- d. Charge less

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

10) What happens to the functional groups of SOM when pH increases? 1 point

- a. Dissolves
- b. Deprotonates
- c. Protonates
- d. Precipitates

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

11) What type of bond does hard cation forms? 1 point

- a. Ionic bond
- b. Covalent bond
- c. Hydrogen bond
- d. All of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

12) What is the major component of soil organic matter? 1 point

- a. Oxygen
- b. Hydrogen
- c. Carbon
- d. Nitrogen

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

13) How is the stability constant of a Metal-Ligand complex calculated? 1 point

- a. $\frac{[\text{Metal}][\text{Ligand}]}{[\text{Metal Ligand complex}]}$
- b. $\frac{[\text{Metal Ligand complex}]}{[\text{Metal}][\text{Ligand}]}$
- c. $[\text{Metal}][\text{ligand}]$
- d. $[\text{Metal}]/[\text{Ligand}]$

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

14) How can we reduce the deleterious effects of Al^{3+} ions in soil? 1 point

- a. Adding alkali
- b. Adding an acid
- c. Increasing the organic matter content
- d. Adding mulch

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

15) Organic acids interact with clay through _____? 1 point

- a. Van der Waal's forces
- b. Hydrogen bonding
- c. Electrostatic bonding
- d. All of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d.