NPTEL » Environmental Soil Chemistry

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Announcements About the Course Ask a Question Progress Mentor
Unit 12 - Week 10
  Course outline
                                      Assignment 10
  How does an NPTEL online
                                                                                                                                        Due on 2020-11-25, 23:59 IST.
                                      The due date for submitting this assignment has passed.
  course work?
                                      As per our records you have not submitted this assignment.
  Week 0
                                      1) Pollutant retention is controlled by ___
                                                                                                                                                                    1 point
  Week 1
                                                      a. Soil temperature
  Week 2
                                                      b. Pollutant properties
                                                      c. Soil moisture content
  Week 3
                                                      d. All of these
  Week 4
  Week 5
  Week 6
  Week 7
                                      No, the answer is incorrect.
                                       Score: 0
                                      Accepted Answers:
  Week 8
  Week 9
                                                                                                                                                                    1 point

 Surface adsorption occurs due to -

  Week 10
                                               a. Electrical charges
   Lecture 46: Retention of
                                              b. Functional groups of organic compound
    Pollutants on and within Soil
                                               c. Soil particles
    Solid Phases
                                              d. Both a and b

    Lecture 47: Retention of

    Pollutants on and within Soil
    Solid Phases (Contd.)
   Lecture 48: Retention of
    Pollutants on and within Soil
                                        ○ d.
    Solid Phases (Contd.)
                                      No, the answer is incorrect.

    Lecture 49: Retention of

                                       Score: 0
    Pollutants on and within Soil
                                       Accepted Answers:
    Solid Phases (Contd.)

    Lecture 50: Retention of

                                                                                                                                                                    1 point
                                      3) Anion negative adsorption is not affected by -
    Pollutants on and within Soil
    Solid Phases (Contd.)
                                                       a. pH

    Lecture Material For Week 10

                                                       b. Capillarity of soil
    Quiz : Assignment 10
                                                       c. Anion charge
   Week 10 Feedback Form
                                                       d. Anion concentration
  Week 11
  Week 12
  Download Videos
  Assignment Detailed Solution
                                      No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
  Text Transcripts
  Live Interactive Session
                                                                                                                                                                    1 point
                                      4) Negative adsorption of anion decreases when
                                                      a. pH decreases
                                                       b. pH increases
                                                      c. At neutral pH
                                                      d. pH has no role in negative adsorption
                                      No, the answer is incorrect.
                                       Accepted Answers:
                                      5) The mechanisms, which is not involved in adsorption of non-ionic pollutants?
                                                                                                                                                                    1 point
                                                      a. Protonation
                                                     b. Electrostatic attraction
                                                     c. Cation bridging
                                                     d. H-bonding
                                      No, the answer is incorrect.
                                      Accepted Answers:
                                      6) The sorption occurs _____?
                                                                                                                                                                    1 point
                                                  a. When free energy of the sorption reaction is positive
                                                  b. When free energy of the sorption reaction is negative
                                                  c. When free energy of the sorption reaction is zero
                                                  d. None of the above
                                      No, the answer is incorrect.
                                       Score: 0
                                      Accepted Answers:
                                                                                                                                                                    1 point
                                      7) The soil environment can be influenced by -
                                           a. Soil physical properties
                                           b. Climatic condition
                                           c. Agricultural activities
                                           d. All of these
                                      No, the answer is incorrect.
                                       Score: 0
                                      Accepted Answers:
                                      8) How many types of adsorption isotherms are there _____.
                                                                                                                                                                    1 point
                                              a. 1
                                              c. 3
                                      No, the answer is incorrect.
                                      Accepted Answers:
                                      9) Which option is not correct?
                                                                                                                                                                    1 point
                                            a. Vermiculite selectively absorbed K<sup>+</sup>
                                            b. Kaolinite is a swelling type of clay
                                            c. Two units of Kaolinite is attached with H-bonding
                                            d. Smectites are a swelling type of clay
                                      No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
                                      Which option is correct?
                                                                                                                                                                    1 point
                                               a. Path of adsorption = Path of desorption
                                               b. Hysteresis effect plays an important role in adsorption
                                               c. Soil pH has no role in adsorption
                                               d. OM has no adsorption sites
                                      No, the answer is incorrect. Score: 0
                                      Accepted Answers:
                                                                                                                                                                    1 point
                                      11) How neutral molecules interact with soil organic phases -
                                              a. Through hydrophilic bonding
                                              b. Through ionic bonding
                                              c. Through hydrophobic bonding
                                              d. All of these
                                      No, the answer is incorrect.
                                      Accepted Answers:
                                                                                                                                                                    1 point
                                      12) Choose the correct option:
                                              a. Water and non-ionic pesticides compete for the adsorption sites
                                              b. Water can transport pesticides from one site to other site.
                                              c. Less moisture means more adsorption of pesticides
                                              d. All of these
                                      No, the answer is incorrect.
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Accepted Answers:

13) Non-adsorptive retention depends on -

a. Coagulation

b. Aggregation

d. All of these

14) Full form of SAR is \_\_\_\_\_

d. None of these

15) SAR is a parameter, used -

d. None of these

a. As an irrigation water quality parameter

b. In controlling soil erosion

c. In checking grain quality

a. Soil adsorption ratio

b. Sodium adsorption range

c. Solid adsorption range

c. Trapping

No, the answer is incorrect.

Accepted Answers:

O d.

Score: 0

No, the answer is incorrect.

No, the answer is incorrect.

Accepted Answers:

Score: 0

Accepted Answers:

1 point

1 point

1 point