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NPTEL » Environmental Soil Chemistry
                                                                                         Announcements About the Course Ask a Question Progress Mentor
Unit 11 - Week 9
  Course outline
                                      Assignment 9
  How does an NPTEL online
                                                                                                                                        Due on 2020-11-18, 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) The concentrations of the pollutants in the soil liquid phase are controlled by _
                                                                                                                                                                   1 point
  Week 1
                                                      a. Acid-base equilibria
  Week 2
                                                      b. Oxidation-reduction equilibria
                                                      c. Ion exchange and adsorption
  Week 3
                                                     d. All of these
  Week 4
                                        ○ a.
  Week 5
                                        ○ b.
                                        O c.
  Week 6
                                        d.
                                       No, the answer is incorrect.
  Week 7
                                       Score: 0
                                       Accepted Answers:
  Week 8
  Week 9
                                                                                                                                                                   1 point
                                      2) Select the process from the options below, which is not directly related to soil solids-pollutants
   Lecture 41: Pollutant-Soil
                                           interactions.
    Solution Interaction
                                               a. Ion exchange and adsorption
   Lecture 42: Pollutant-Soil
                                               b. Precipitation
    Solution Interaction (Contd.)
                                               c. Volatilization
   Lecture 43: Pollutant-Soil
                                              d. None of these
    Solution Interaction (Contd.)
    Lecture 44: Pollutant-Soil
    Solution Interaction (Contd.)
   Lecture 45: Pollutant-Soil
                                        O c.
    Solution Interaction (Contd.)
                                        d.

    Lecture Material For Week 9

                                       No, the answer is incorrect.
                                       Score: 0
    Quiz : Assignment 9
                                       Accepted Answers:
  Week 10
                                                                                                                                                                    1 point
                                          The dissociation of acid will produce _
  Week 11
                                                      a. A base
  Week 12
                                                      b. A base and a proton
                                                      c. A proton and an electron
  Download Videos
                                                      d. Both b and c
  Assignment Detailed Solution
                                        ○ a.
  Text Transcripts
                                        ○ b.
  Live Interactive Session
                                        d.
                                       No, the answer is incorrect.
                                       Accepted Answers:
                                                                                                                                                                    1 point
                                      4) Ion activity product > K<sub>so</sub> (solubility product) means ____
                                                      a. Over-saturated
                                                      b. At equilibrium
                                                      c. Saturated
                                                      d. Under-saturated
                                        ○ a.
                                        ○ b.
                                       No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
                                      5) Precipitation occurs at _____?
                                                                                                                                                                    1 point
                                                      a. Over saturation
                                                      b. Saturation
                                                      c. Equilibrium
                                                      d. Under saturation
                                       No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
                                      6) Water is the _
                                                                                                                                                                   1 point
                                                  a. Ionic solution
                                                  b. Non-polar solvent
                                                  c. Polar solvent
                                                  d. Chelates
                                       No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
                                      7) Choose the correct options:
                                                                                                                                                                   1 point
                                                      a. PAH is soluble in water
                                                      b. The number of ring in PAH increases, the solubility in water decreases
                                                      c. PAH is not soluble is organic solvents
                                                      d. None of these
                                       No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
                                      8) What is the full form of PAH?
                                                                                                                                                                    1 point
                                               a. Polycyclic aromatic hydrocarbon
                                               b. Poly aromatic hydrazine
                                               c. Poly aromatic hydroxide
                                               d. None of these
                                        ○ a.
                                        ○ b.
                                       No, the answer is incorrect.
                                       Score: 0
                                       Accepted Answers:
                                      9) The activities of the Fe<sup>2+</sup> and Fe<sup>3+</sup> become equal at pH - _____.
                                                                                                                                                                    1 point
                                              a. 8
                                              b. 7.57
                                              c. 4
                                              d. 5.5
                                        ○ a.
                                        ○ b.
                                        ○ c.
                                        d.
                                       No, the answer is incorrect.
                                       Accepted Answers:
                                       10) The oxidation-reduction process is enhanced by -_
                                                                                                                                                                    1 point
                                              a. Biological activity
                                              b. Behavior of heavy metals
                                              c. Evapotranspiration of plants
                                              d. Both a and b
                                        ○ a.
                                        ○ b.
                                       No, the answer is incorrect.
                                       Accepted Answers:
                                       11) CaSO<sub>4</sub> is a component of _____
                                               a. Lime
                                               b. Gypsum
                                               c. Both
                                               d. None of these
```

O c.

Score: 0

○ c.

Score: 0

○ a.

No, the answer is incorrect.

No, the answer is incorrect.

No, the answer is incorrect. Score: 0

15) Which one is the correct option?

a. Al<sup>3+</sup>>Fe<sup>3+</sup>>Mn<sup>2+</sup> b. Al<sup>3+</sup>>Fe<sup>3+</sup>>Cu<sup>2+</sup> c. Fe<sup>3+</sup>>Al<sup>3+</sup>>Cu<sup>2+</sup>

d. None of these

The decreasing order of complex stability is -

Accepted Answers:

Accepted Answers:

<sup>14)</sup> Aluminium

○ a.

○ a.

○ b.

No, the answer is incorrect.

Accepted Answers:

Accepted Answers:

No, the answer is incorrect.

12) The surfactant molecules \_\_\_\_

c. Both a and b

d. Both a and c

a. Increase the water solubility of non-polar organic chemicals

b. Decrease the water solubility of non-polar organic chemicals

d. Does not influence water solubility of non-polar organic chemicals

13) The solubility of inorganic and organic pollutants in water \_\_\_\_\_\_.

a. Concentration increases at higher pH (>5) in the soil solution

b. Concentration increases at lower pH (<5) in the soil solution

d. Concentration first increases then decreases at lower pH (<5) in the soil solution

c. Concentration does not depend on the soil pH

a. Increases with the increase in temperature

b. Decreases with the increase in temperature

c. Depends on seasonal variation of temperature

1 point

1 point

1 point

1 point

Accepted Answers: