Unit 11 - Week 9

Assignment 9

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

Due on 2020-11-18, 23:59 IST.

1) The concentrations of the pollutants in the soil liquid phase are controlled by _____? *1 point*

a. Acid-base equilibria
b. Oxidation-reduction equilibria
c. Ion exchange and adsorption
d. All of these

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

2) Select the process from the options below, which is not directly related to soil solids-pollutants interactions. *1 point*

a. Ion exchange and adsorption
b. Precipitation
c. Volatilization
d. None of these

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

3) The dissociation of acid will produce _____. *1 point*

a. A base
b. A base and a proton
c. A proton and an electron
d. Both b and c

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

4) Ion activity product > K_{sp} (solubility product) means _____. *1 point*

a. Over-saturated
b. At equilibrium
c. Saturated
d. Under-saturated

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

5) Precipitation occurs at _____ ? *1 point*

a. Over saturation
b. Saturation
c. Equilibrium
d. Under saturation

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

6) Water is the _____? *1 point*

a. Ionic solution
b. Non-polar solvent
c. Polar solvent
d. Chelates

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

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

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

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.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

9) The activities of the Fe^{2+} and Fe^{3+} 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.
Score: 0
Accepted Answers:
b

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.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

11) $CaSO_4$ is a component of _____ *1 point*

a. Lime
b. Gypsum
c. Both
d. None of these

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

12) The surfactant molecules _____? *1 point*

a. Increase the water solubility of non-polar organic chemicals
b. Decrease the water solubility of non-polar organic chemicals
c. Both a and b
d. Does not influence water solubility of non-polar organic chemicals

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

13) The solubility of inorganic and organic pollutants in water _____. *1 point*

a. Increases with the increase in temperature
b. Decreases with the increase in temperature
c. Depends on seasonal variation of temperature
d. Both a and c

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

14) Aluminium _____? *1 point*

a. Concentration increases at higher pH (>5) in the soil solution
b. Concentration increases at lower pH (<5) in the soil solution
c. Concentration does not depend on the soil pH
d. Concentration first increases then decreases at lower pH (<5) in the soil solution

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a

15) Which one is the correct option? *1 point*

The decreasing order of complex stability is -

a. $Al^{3+}>Fe^{3+}>Mn^{2+}$
b. $Al^{3+}>Fe^{3+}>Cu^{2+}$
c. $Fe^{3+}>Al^{3+}>Cu^{2+}$
d. None of these

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c