

Unit 4 - Week 2

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Assignment 2

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

Due on 2020-09-30, 23:59 IST.

1) Which of the following is a primary mineral? 1 point

- a. Quartz
- b. Kaolinite
- c. Gibbsite
- d. Goethite

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

2) How is cation-anion distance calculated by Pauling's principle? 1 point

- a. Product of their radii
- b. Sum of their radii
- c. Difference of their radii
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

3) What type of coordination occurs between anion and cation when their radius ratio equals 1? 1 point

- a. Tetrahedral
- b. Octahedral
- c. Hexagonal or Cubic Closest Packing
- d. Linear

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

4) Sheets of tetrahedra are known as _____ 1 point

- a. Nesosilicates
- b. Inosilicates
- c. Phyllosilicates
- d. Tectosilicates

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

5) Where does Isomorphous substitution occur? 1 point

- a. Between atoms of similar valency
- b. Between atoms of similar size
- c. Between atoms of similar molecular weight
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

6) Which clay has the highest shrink-swell capacity? 1 point

- a. Montmorillonite
- b. Kaolinite
- c. Illite
- d. Talc

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

7) Which clay has the highest cation exchange capacity? 1 point

- a. Montmorillonite
- b. Kaolinite
- c. Vermiculite
- d. Chlorite

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

8) The interlayer space of chlorite clay is occupied by _____? 1 point

- a. Ca^{2+}
- b. Mg^{2+}
- c. K^+
- d. Hydroxide sheet

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d.

9) When layers of more than one clay mineral stack together within the crystals, it is known as? 1 point

- a. Intergrade clay minerals
- b. Interstratified clay minerals
- c. Both a and b
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

10) The basic structure of iron oxides is _____? 1 point

- a. Tetrahedron
- b. Octahedron
- c. Both a and b
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

11) Which of the following is a stable carbonate mineral? 1 point

- a. Calcite
- b. Magnesite
- c. Dolomite
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

12) Which of the following clays has the lowest specific surface area? 1 point

- a. Kaolinite
- b. Montmorillonite
- c. Talc
- d. Muscovite

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
a.

13) Why does dioctahedral vermiculites have lesser CEC than trioctahedral vermiculites? 1 point

- a. Presence of K^+ ions in its interlayer space
- b. Presence of $Al(OH)_x$ in its interlayer space
- c. Both a and b
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

14) Which equation is used to predict the distance of atomic planes? 1 point

- a. BET equation
- b. Bragg's equation
- c. Darcy's equation
- d. None of the above

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

15) Which chemical is used to separate organic matter from the clay fraction before X-ray diffraction analysis of clay? 1 point

- a. Sodium acetate
- b. Sodium citrate
- c. Sodium dithionite
- d. Hydrogen peroxide

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
d.