Assignment 6

Due on 2019-08-11, 00:00 IST.

1. Which of the following materials are also known as `Voided servers`?
   - Polyurethane
   - Debris
   - Cement
   - Rods

   Accepted Answers: Polyurethane

2. Which of the following characteristics cannot be measured by using NMR?
   - Rate of reaction
   - Bulk density
   - Porosity
   - True density

   Accepted Answers: Rate of reaction

3. Why the answer is incorrect?
   - NMR does not measure true density.

4. Which of the following materials is used as a reference during SSA measurement using N2 gas adsorption method?
   - Mercury (Mercury)
   - Porous media (Porous media)
   - Mercury (Porous media)
   - Copper oxide (CuO)

   Accepted Answers: Porous media (Porous media)

5. Why the answer is incorrect?
   - Copper oxide does not measure true density.

6. Which of the following properties can be determined by using glass capillary electrophoresis?
   - pH
   - Electrical conductivity
   - Total number of elements
   - All of the above

   Accepted Answers: All of the above

7. During the determination of GGC, the sample of the material is treated with HCl (hydrochloric acid) to remove organics.
   - True
   - False

   Accepted Answers: True

8. Determine the Total GGC of soil with the following properties:
   - Concentration of GGC in the extract: 460 ppm
   - Concentration of Fe in the extract: 230 mg/L
   - Concentration of Cu in the extract: 50 mg/L
   - Volume of extract: 1 L
   - Fe: 2.3 mg/L
   - Cu: 1.2 mg/L

   Accepted Answers: Total GGC: 790 ppm

9. Which of the following statements are incorrect regarding the SSA of the soils?
   - SSA depends on the porosity of the soil
   - Soil water content and interaction depends on the SSA
   - Clayey soil has SSA very close to the sand
   - SSA does not depend on the particle size distribution of the solids

   Accepted Answers: All of the above

10. Which of the following statements is incorrect regarding the SSA of the soil?
    - SSA depends on the porosity of the soil
    - SSA does not depend on the particle size distribution of the solids
    - Clayey soil has SSA very close to the sand
    - SSA depends on the porosity of the soil

    Accepted Answers: All of the above