

***** EXAMINATION *****

**DEVELOPMENT OF A TEST METHOD FOR LEACHING OF LEAD
FROM LEAD-BASED PAINTS THROUGH ENCAPSULANTS**

1. **The soft malleable poor metal, also considered to be one**
 - a) of the heavy metals, is lithium
 - b) of the heavy metals, is silver
 - c) of the heavy metals, is mercury
 - d) of the heavy metals, is lead

2. **The process of extracting minerals from a solid by**
 - a) dissolving them in liquid is silvering
 - b) dissolving them in liquid is sherardising
 - c) dissolving them in liquid is leaching
 - d) dissolving them in liquid is deicing

3. **The chemical compound that appears naturally as the mineral**
 - a) cerussite is lead chromate
 - b) cerussite is lead carbonate
 - c) cerussite is lead selenide
 - d) cerussite is lead acetate

4. **The chemical compound with a vivid yellow color and**
 - a) practically insoluble in water is lead chromate
 - b) practically insoluble in water is lead carbonate
 - c) practically insoluble in water is lead selenide
 - d) practically insoluble in water is lead acetate

5. **The acidic liquid processed from fermentation of ethanol**
 - a) in a process yielding its key ingredient is soft drink
 - b) in a process yielding its key ingredient is milk
 - c) in a process yielding its key ingredient is paint
 - d) in a process yielding its key ingredient is vinegar

6. **The group of related thermoplastic substances derived from**
 - a) acrylic acid and methacrylic acid is acrylic acid
 - b) acrylic acid and methacrylic acid is acrylic fiber
 - c) acrylic acid and methacrylic acid is acrylic paint
 - d) acrylic acid and methacrylic acid is acrylic resin

7. **The measurement technique for collecting infrared spectra is**
- a) Fourier transform infrared spectroscopy
 - b) laser-induced breakdown spectroscopy
 - c) nuclear magnetic resonance spectroscopy
 - d) ultraviolet-visible spectroscopy
8. **The thermoanalytical technique developed by E.S. Watson and**
- a) M.J. O'Neill in 1960 is isothermal titration calorimetry
 - b) M.J. O'Neill in 1960 is differential scanning calorimetry
 - c) M.J. O'Neill in 1960 is reaction calorimetry
 - d) M.J. O'Neill in 1960 is constant flux calorimetry
9. **The weak acid that gives vinegar its sour taste and pungent**
- a) smell is nitric acid
 - b) smell is ferulic acid
 - c) smell is acetic acid
 - d) smell is acrylic acid
10. **The clear to yellowish oil obtained from the dried ripe seeds**
- a) of the flax plant is hemp oil
 - b) of the flax plant is grape seed oil
 - c) of the flax plant is tea seed oil
 - d) of the flax plant is linseed oil
11. **The aqua fortis is a highly corrosive and toxic strong acid**
- a) commonly called nitric acid
 - b) commonly called ferulic acid
 - c) commonly called acetic acid
 - d) commonly called acrylic acid
12. **The phenomenon whereby a substance is released from or**
- a) through a surface is sorption
 - b) through a surface is desorption
 - c) through a surface is adsorption
 - d) through a surface is absorption
13. **The increase of volume material due to absorption of a**
- a) solvent is called filling
 - b) solvent is called fitting
 - c) solvent is called swelling
 - d) solvent is called leaching
14. **The white crystalline with a sweetish taste is a chemical**
- a) compound also know as lead chromate
 - b) compound also know as lead carbonate
 - c) compound also know as lead selenide
 - d) compound also know as lead acetate

15. **An organic compound with acidic properties is**
- a) a heteropoly acid
 - b) a nucleic acid
 - c) an organic acid
 - d) a peroxy acid
16. **The water-borne epoxy and acrylic products and oil-based**
- a) alkyd paint is classified as encapsulant
 - b) alkyd paint is classified as coolant
 - c) alkyd paint is classified as suppressant
 - d) alkyd paint is classified as refrigerant
17. **The polyester modified by the addition of fatty acids is**
- a) called capilene
 - b) called alkyd
 - c) called crimplene
 - d) called cutin
18. **The covering applied to the surface of an object usually**
- a) referred to as substrate is a leaching
 - b) referred to as substrate is a deicing
 - c) referred to as substrate is a coating
 - d) referred to as substrate is a silvering
19. **The potential benefits of encapsulant includes**
- a) less disruption of the occupants life
 - b) less comprehensive requirements for worker protection
 - c) lower cost
 - d) All of the above
20. **Leaching could occur when lead-based films are wetted**
- a) by condensed water
 - b) by cleaning solutions
 - c) by condensed water
 - d) by rain and other liquids

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