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Question Bank

Subject-IPT

Fourth semester (CE/CT)

Select correct answer

1.steam hydrocarbon reforming process is manufacturing process of

A. nitrogen B. carbon dioxide C. oxygen D. hydrogen

2.Permangenate scrubber is used for

A. purification B. dilution C. oxidation D. catalyst

3.nitrogen and oxygen separate because

A. different boiling points B. different sizes C. different densities D. different volumes

4.Carbon monoxide is _____ gas

A. Colorless B. odorless C. poisonous D. all above

5.Copper -Liquor scrubber is used for the recovery of

A. Carbon dioxide B. Hydrogen C. Carbon monoxide D. Nitrogen

6.The water scrubber is usually used in any manufacture process for following purpose

A. Water soluble impurities B. Suspended impurities C. Water soluble gases D. All of the above

7.The CO is absorbed in copper liquor solution at

A. High pressure B. Low pressure C. Medium pressure D. None

8.The CO is absorbed in copper liquor solution at what pressure

A. 200 atm B.10 atm C.4.5 atm D.Atmospheric pressure

9.The ammonia gas is dissolved in solution of copper as cupric salt to produce

A. Copper carbonyl B. Copper ammonia C. Hexamine copper ion D. Hexamine formate ion

10. The catalyst used in the manufacture of sulphuric acid by contact process is

A. iron **B.** aluminium oxide **C.** nickel **D.** vanadium pentoxide

11. Sulphuric acid produced by contact process is

A. cheaper **B.** pure and concentrated **C.** of poor quality **D.** very dilute

12. ammonia oxidation process is used for manufacturing of

A. NH_3 B. HNO_3 C. H_2SO_4 D. none of above

13. pyrophosphoric acid formula is

A. $H_4P_2O_7$ B. H_3PO_4 C. H_2PO_4 D. HPO_3

14. Hydrochloric acid leaching process is used for production of

A. phosphoric acid B. sulphuric acid C. nitric acid D. carbonic acid

15. Select the wrong statement. Compared to platinum catalyst, vanadium pentoxide catalyst used in contact process for the manufacture of H_2SO_4

A. is relatively immune to poisons **B.** requires low initial investment and 5% replacement per year

C. requires low O_2/SO_2 to give economic conversion **D.** requires dilute SO_2 input (7-10%)

16.65% oleum

A. is prepared by distilling 20% oleum **B.** is prepared by chamber process **C.** does not contain free SO_3

D. contains 0.65% free SO_3

17.Contact process for the manufacture of sulphuric acid yields

A. 80% H_2SO_4 only **B.** 98% H_2SO_4 and higher **C.** 95% H_2SO_4 only **D.** 90% H_2SO_4 only

18.For the production of sulphuric acid chamber process was developed first but produced acid of concentration

A. less than 80% **B.** 98% **C.** 100% **D.** 95%

19.Equilibrium constant (Kp) at constant pressure for sulphur dioxide oxidation

A. increases with increase in temperature **B.** decreases with increase in temperature

C. remains unaffected with change in temperature **D.** decreases linearly with increase in temperature

19.In the manufacture of sulphuric acid by contact process platinum catalyst was previously used but suffers from

A. easy poisoning **B.** fragility **C.** high initial investment **D.** all of these answers

20.The catalyst used in the manufacture of sulphuric acid by contact process is

A. iron **B.** aluminium oxide **C.** nickel **D.** vanadium pentoxide

21.Select the wrong statement. Compared to platinum catalyst, vanadium pentoxide catalyst used in contact process for the manufacture of H_2SO_4

A. is relatively immune to poisons **B.** requires low initial investment and 5% replacement per year

C. requires low O_2/SO_2 to give economic conversion **D.** requires dilute SO_2 input (7-10%)

22.Sulphuric acid produced by contact process is

A. cheaper **B.** pure and concentrated **C.** of poor quality **D.** very dilute

23.Oleum gives fumes of

A. H_2SO_4 **B.** H_2O+SO_2 **C.** SO_2 **D.** SO_3

24.ammonia oxidation process is used for manufacturing of

A. NH_3 B. HNO_3 C. H_2SO_4 D. none of above

25.pyrophosphoric acid formula is

A. $H_4P_2O_7$ B. H_3PO_4 C. H_2PO_4 D. HPO_3

26.Hydrochloric acid leaching process is used for production of

A. phosphoric acid B. sulphuric acid C. nitric acid D. carbonic acid

27.Oxidation and hydration of elemental Phosphorus for production of phosphoric acid done by

A. Electric furnace process B. Wet process C. Dry process D. leaching

28.Yield of H_2SO_4 production by chamber process and contact process is

A. 98% and 80% B. 50% and 70% C. more than 60% D. 80% and 98%

29.The nitric acid prepared by Ostwald's process involves oxidation of

A. Nitrogen B. Hydrogen C. Ammonia D.Carbon

30.How many allotropic forms of the carbon exist

A.1 B.2.C.3.D.4

31. Which is the important property of the activated carbon

A. Absorption B. Separation C. Dispersion D.Adsorption

32. Which are the allotropic forms of the carbon have good electrical conductivity

A. Amorphous carbon B. Graphite C. Diamond D. Amorphous carbon and Graphite

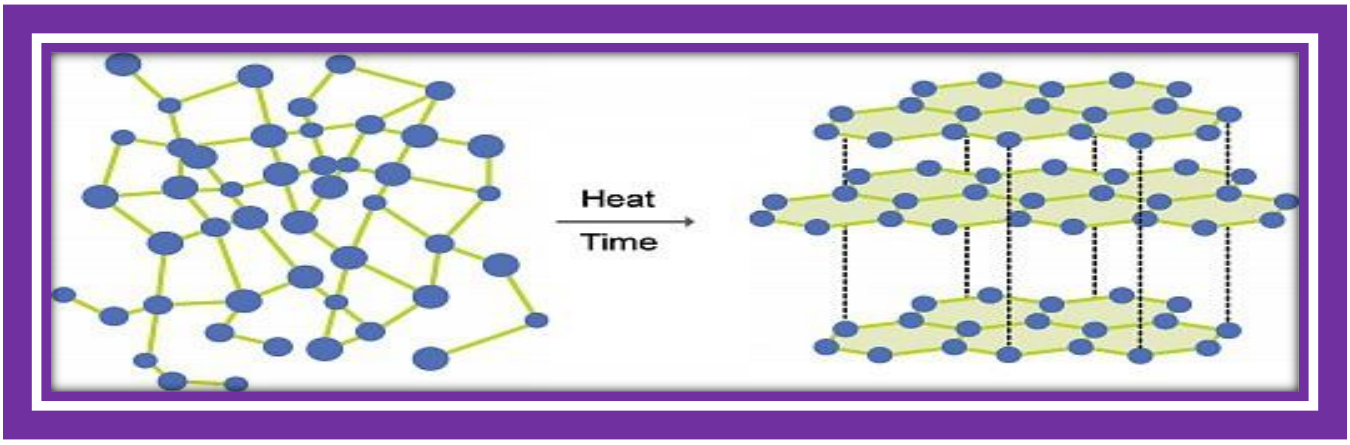
33. For the cutting the glass which type of carbon is used

A.lamp black B.Diamond C.Grahphite D.Carbn black

34.Whch of the following process is used for manufacturing the carbon black

A. Channel process B. Separation C. Electrode D. melting

35.



By applying heat at very high temperature at 2700 degree C which product is prepared from coke which is structured structure

A.Carbon black B. Zn C.TiO2 D.Graphite

36. The isotopes which cannot be used directly nuclear fuel are known as

A.Fissile material B. Fertile material .C. Raw material D. Control material

38.The role of moderator in nucler reactor is to

A.Fasten reaction B. Terminate reaction C.slow down reaction D. Reduce isotope

39.Which oxidizing agents are used in leaching process of U

A.H2SO4 B. MnO2 C. HCl D. NaOH

40.What is the formula of uranium oxide concentrate

A. U B. U2O4 C.U3O8 D.UO3

41. The minimum theoretical voltage required for manufacturing chloro alkali compounds by electrolysis is calcilated on the basis of

A. Gibbs equation B. Gibbs -Helmoltz equation C. Debye equation D.Stengel equation

42. Which is not the process of manufacturing the soda ash

A. Stengel B.Solvay C. Le-Blank D. Electrolytic process

43.Which are the principle chemicals present in mixed fertilizers

A. Zr B. Mn and Zn C.N,P,K D.Urea

44. Which is the major source of potash

A. Bittern B. lime C. Silicate D.Gypsum

45.Why urea is preferred fertilizer

A. Slow release B. Low molecular weight C. Both A &B D. Hygroscopic nature

46. What is other main industrial application of urea than fertilizer

A. Ammonia production B. Carbamate production C. preparation of polymer/resin D. Adsorption

47.In electrolysis of brine solution the chlorine is liberated on

A. Cathode B. Anode C. Middle compartment D. None of these

48.In Castner -Kellner cell which material layer behaves as cathode

A. Hg B. Na-Hg C. Nickel D. Iron

49. In preparation of caustic soda by electrolysis which material is used as raw material

A. HCl B. NaCl C.NH4Cl D.NH3

50.What is the industrial application of soda ash in water treatment

A. removal of suspended impurities B. Coagulant C. Removal of Calcium hardness D. Remove bacteria