Question Bank

B. Tech 6th SEM Chemical Technology S-22

Department of Oil Technology

Subject: Technology of Soaps, Surfactants and Glycerine

(Special Technology-IV)

Total Questions: 50

1. The soap making process consists of reaction of _____ along with coconut oil with sodium or potassium hydroxide.

A. vegetable fats

B. animal fats

C. hydroganated fats

D. none of above

2. The traditional process of soap making consists of direct saponification of oil and fats in _____.

A. continous process

B. semi-batch process

C. batch process

D. all of above

3. The soap batch is boiled using steam sparging. The soap produced is the salt of a _____ carboxylic acid.

A. long chain

B. short chain

C. medium chain

D. very small chain

4. Upon completion of saponification additional salt to the wet soap causing it to separate out into _____ in salt water as soap is not very soluble in salt water.

A. soap and salt

B. soap and catalyst

C. soap and glycerine

D. fatty acid and glycerine

5._____ is very valuable by product of soap manufacturing, so effective removal is very important in this process.

A. soap stock

B. solid salt

C. Glycerine

D. all of above

6. In the continuous process the blended oils and fats along with appropriate amount of caustic lye and salt is continuously fed to the pressurized, heated autoclave operatinfg at temperature _____ and pressure _____.

A. 120 oC & 200 kpa

B. 130 oC & 200 kpa

C. 120 oC & 210 kpa

D. 150 oC & 200 kpa

7. A small amount of _____ is added to the crude glycerine and the solution then distilled under vacuum in a heated still. Two fractions are taken off - one of pure glycerine and one of glycerine and water.

A. alcohol

B. soduim chloride

C. caustic soda

D. oil

8. The crude glycerine is refined in special _____ at 140 oC and 755 mmHg.

A. adsoption column

B. absorption column

C. drying column

D. distillation column

9. Monoglyceride is a better emulsifier than diglyceride.

A. true

B. false

10. Sodium laurel ether sulfate (SLES) classified under which group of surfactant?

A. cationic surfactants

B. Anionic surfactants

C. Amphoteric surfactants

D. none of above

11. Soaps are the salts of (mainly) saturated and unsaturated fatty acids having carbon number_____.

A. C10 to C18

B. C12 to C20

C. C14 to C22

D. C6 to C14

12. A blend of glyceride oils is reacted with a strong sodium hydroxide solution to give the _____.

A. ester

B. fatty acid

C. soap

D. none of above

13. Detergents are the combination of many surfactants.

A. true

B. false

14. SLES stands for?

A. sodium lauryl Ether sulphate

B. sodium lauryl Ethyl sulphate

C. sodium lauryl Ether sulphonate

D. sodium lauryl Ether sulphite

15. AOS stands for?

A. Alpha olefin sulfonite

B. Alpha olefin sulfur

C. Alpha olefin sulfonate

D. none of above

16. Acid slurry is also known as LABSA.

A. true

B. false

17. Biodegradable detergents are defined as the type of detergent that has a straight hydrocarbon chain.

A. true

B. false

18. Nonionic detergents are most commonly used for solubilization.

A. true

B. false

19. A detergent is the of a long chain of benzene sulphonic acid (or the sodium salt of a long chain alkyl hydrogen sulphate) which has cleansing properties in water.

A. magnesium salt

B. sodium salt

C. potassium salt

D. none of above

20. pH of Laundry detergent is close to 1.5

A. true

B. false

21. The role of sodium bicarbonate in detergent is to increase the water's pH level.

A. true

B. false

22. What is the role of dolomite in detergent?

A. increase the water's pH

B. decrease the water's pH

C. act as a base filler

D. colouring agent

23. In a detergent vinegar and salt work together to naturally lock the colour into the fabric.

A. true

B. false

24. The sodium carbonate work as a water softener in detergent.

A. false

B. true

25. The pH range of dishwashing liquid is approx 7 to 8.

A. false

B. true

26. What is the unit of surface tension in SI?

A. N/m

B. N-m

C. N/m^2

D. none of above

27. What is SLS in surfactant?

A. Sodium Lauryl Sulfonate

B. Sodium Lead Sulfate

C. Sodium Lauryl Sulfate

D. none of above

28. Ritha & shikakai clasifed under natural detergent.

A. false

B. true

29. Which one is used as major filler in powder detergent?

A. sodium carbide

B. potassium sulphate

C. sodium sulphate

D. all of above

30. α-Olefin sulfonates (AOS) classified under which group of surfactant?

A. group of anionic surfactants

B. group of cationic surfactants

C. group of neutral surfactants

D. all of above

31. For soaps the only important factors are the relative proportions of saturated to unsaturated fatty acids & and the lengths of the fatty acid chains.

A. true

B. false

32. Amount of unsaturated fatty acids present in soap is find by iodine value test.

A. false

B. true

33. The lengths of the fatty acid chain is similar to carbon number present.

A. false

B. true

34. In soap preparation, tallows (AT or T) or Palm Oils (PO), which are generally called_____.

A. non-nut oils

B. nut oils

C. drying oils

D. none of above

35. At what temperature calcite is more soluble in water than in sodium stearate.

A. 30°C

B. 25°C

C. 45°C

D. 35°C

36. Insoluble soaps add lather stability and hardness, which makes the soap solid.

A. true

B. false

37. Sodium laurate present in soap does not dissolve significantly until the temperature is over.

A. 30°C

B. 35°C

C. 37°C

D. 40°C

38. Relatively small change in soap water content (say 1-2%) can have a big influence on product softness.

A. true

B. false

39. Soap will not dissolve in strong solutions of glycerine.

A. false

B. true

40. A high level of glycerine acts like an increased level of electrolyte.

A. false

B. true

41. To make toilet soap noodles, the neat soap is preheated to typically _____and is sprayed into a vacuum chamber.

A. 180-190 OC

B. 135-145 OC

C. 130-134 OC

D. 100-110 OC

42. The structure of the solid phase of soap formed immediately after drying is called the _____.

A. moist phase

B. dry phase

C. top phase

D. kappa phase

43._____difference is the fundamental cause for water penetration into soap.

A. air pressure

B. osmotic pressure

C. atmosphere pressure

D. none of above

44. Hydrophilic end of soap is soluble in_____.

A. water

B. dirt

C. oil dirt

D. all of above

45. In bath soap, the higher the fatty material present, better the cleansing ability.

A. false

B. true

46. Metallic soaps are prepared by neutralization of purified fatty acids.

A. false

B. true

47. What is the range of HLB scale?

A. 0 to 10

B. 0 to 18

C. 0 to 20

D. 0 to 30

48. HLB stand for Hydrophilic–lipophilic balance.

A. false

B. true

49. CMC value of sodium octyl sulfate is _____ (CMC/M).

A. 1.5x10^-1

B. 1.3x10^-1

C. 1.7x10^-1

D. 1.1x10^-1

50. Chemical formula of glycerol is_____.

A. C3H8O2

B. C3H6O3

C. C3H8O3

D. C2H8O3