

**Arts, Commerce and Science College, Bodwad.**

**Question Bank**

**T.Y. B.Sc. Sem-V**

**Subject: - Industrial Chemistry (Chemistry)**

---

1. Commercialization of a chemical reaction is a development of.....

a) Unit operation

b) **Unit process**

c) Batch process

d) Continuous process

2. Amongst the following is an unit operation.

a) Substitution reaction

b) Addition reaction.

c) Elimination reaction.

d) **Crystallization**

3. Chemical Industries is considered as.....

a) **Societal problem solver**

b) Societal problem creator.

c) Helpless for society

d) None of these.

4. Capable of being represented graphically and distinguish goods and services....

a) Copy write act.

b) Patent act.

c) **Trade Mark act.**

d) Technical feasibility.

5. Direct Raw material are.....

**a) Directly incorporated into the final product**

b) Semi processed.

c) Cannot be incorporated into the product

d) Must be processed.

6. Amongst the following is an unit process.

**a) Rearrangement reaction.**

b) Drying.

c) Melting.

d) Adsorption and absorption.

7. Control of process variable such as Concentration, temperature, pressure etc. is called.....

a) Quality control.

b) Pollution control

c) Quality Assurance

**d) Process control.**

8. BIS means.....

a) Bureau of Indian system.

b) Bureau of Indian survey.

**c) Bureau of Indian Standards.**

d) Bureau of Indian science.

9. In the chemistry the development of sustainable chemical protocols and product is known as ...,

a) Unit development

**b) Sustainable development.**

c) Batch development.

d) Continues development

10. The part of quality management, which focused on providing confidence that all the quality requirements will be fulfilled is called as.....

- a) **Quality Assurance.**
- b) Quality control.
- c) Quality management.
- d) All of above

11. Sugar Cane is also known as.....

- a) **Sucrose.**
- b) Glucose.
- c) Fructose.
- d) Maltose.

12. The molecular formula of sucrose is.....

- a) C<sub>10</sub>H<sub>22</sub>O<sub>10</sub>.
- b) C<sub>14</sub>H<sub>26</sub>O<sub>10</sub>.
- c) **C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>.**
- d) C<sub>15</sub>H<sub>30</sub>O<sub>12</sub>.

13. Crystals are separated from mother liquor by.....

- a) Filtration.
- b) **Centrifugation.**
- c) Decoloration.
- d) Affination.

14. For clarification of juice, which gas is used?

- a) So<sub>2</sub>
- b) Co<sub>2</sub>
- c) H<sub>2</sub>S

**d) Only a and b are correct.**

15. Celotex is manufactured from.....

a) Molasses.

**b) Bagasse.**

c) Charcoal.

d) Latex.

16. Calcium sucrosate is converted into sucrose by.....process.

a) Defecation.

b) Evaporation.

**c) Carbonation.**

d) Caramelization.

17. Presently, sugar is bagged in ....grades.

a) 2

b) 4

**c) 6**

d) 8

18. The  $\text{CaSO}_3$  formed in the sulphitation process is helpful.....

a) To keep reducing atmosphere.

b) Prevents oxidation.

c) To prevents darkening of juice.

**d) All of above.**

19. Due to heating, invert sugar turn brown more rapidly than.....

a) Glucose.

b) Fructose.

**c) Sucrose.**

d) None of these.

20. In sulphitation .....gas is used.

a)  $\text{SO}_3$

**b)  $\text{SO}_2$**

c)  $\text{CO}_2$

d)  $\text{H}_2\text{S}$

21. In Carbonation .....gas is used.

a)  $\text{NO}_2$

b)  $\text{SO}_2$

**c)  $\text{CO}_2$**

d)  $\text{CO}$

22. The extracted juice is immediately made alkaline by addition of.....

a)  $\text{NH}_3$

**b) Milk of lime**

c)  $\text{NaOH}$

d)  $\text{Na}_2\text{CO}_3$

23. The function of  $\text{SO}_2$  in clarification is.....

a) Neutralization excess lime.

b) Bleaches coloring matter.

c) Decreases viscosity of juice.

**d) All of above.**

24. Defecation is the process of preparation of raw liquor for.....

**a) Filtration and clarification.**

b) Filtration and evaporation.

c) For settling of juice.

d) None of these.

25. Conversion of Sucrose into glucose & Fructose is known as....

a) Racemization.

**b) Inversion.**

c) Retention.

d) Filtration.

26. Saturated solution of sugar dissolves more sugar on addition of salt is called as...

a) Carbonation.

b) Sulphitation.

c) Caramelization.

**d) Melassigenic effect.**

27. The process of Affination is carried out in.....

a) Converter.

**b) Mingler.**

c) Multiple effect evaporator.

d) Centrifuge machine.

28. The crystallization of sucrose in vaccum pan is called as.....

**a) Sugar boiling.**

b) Sachharification.

c) Sugar solubalization.

d) All of these.

29. The semisolid mass consisting of sugar crystals and molasses is called as.....

a) Caramels.

b) Mother liquor.

**c) Massecuite.**

d) All of these

30. Addition of milk of lime in the juice, precipitates pectic substance into.....

**a) Insoluble calcium pectate .**

b) Soluble calcium pectate.

c) Calcium hydroxide.

d) Pectic acid.

31. During clarification, in which layers clear juice is present?

a) Top layer.

b) Bottom layer.

**c) Middle layer.**

d) All of these.

32. The screening process is essential to.....

a) Remove sulphur particals.

b) Remove colors.

c) Remove non-sugars.

**d) Remove floating impurities.**

33. ....is the fibrous portion of Cane from which juice is extracted.

a) Molasses.

**b) Bagasse.**

c) Leaf.

d) Root.

34. During clarification, out of three layers, the bottom layer is called as.....

**a) Mud layer.**

b) Thick scum layer.

c) Sugar juice layer.

d) Inner layer.

35. From last evaporator, the thick syrup containing about.....solid matter is obtained.

a) 20%

b) 40%

**c) 60%**

d) 80%

36. The removal of film Molasses from the surface of raw sugar crystals is called as....

a) Melting.

b) Clarification.

c) Filtration.

**d) Affination.**

37. The mother liquor passes through lining with wire cloth, because of the .....force exerted.

a) Electrical.

**b) Centrifugal**

c) Centripetal.

d) Van see walls.

38. To have high sugar recovery, it is essential to remove.... present in juice before crystallization.

a) Acids.

b) Bases.

c) Phenols

**d) Salts.**

39. To enhance the rate of coagulation and settling of the precipitates.....are added.

a) Catalysts.

b) Non electrolytes.

**c) Polyelectrolytes.**



d) Reducing agents.

40. In India, decolourisation of sugar syrup is carried out by.....

**a) Granular carbon.**

b) Animal charcoal.

c) Carbon dioxide.

d) Soot.

41. Power alcohol is used to.....

a) Electricity.

b) Generate power.

**c) Fuel.**

d) Disinfectant

42. The process which makes alcohol undrinkable is called.....

a) Industrial alcohol.

**b) Denatured alcohol**

c) Absolute alcohol.

d) Fusel alcohol.

43. The wash of wort contains .....% of alcohol.

a) 15-20 %

**b) 6-10%**

c) 25-30%

d) 40-50%

44. Fusel oil mainly contains.....

a) Methyl alcohol.

b) iso-propyl alcohol.

c) iso-butyl alcohol.

**d) Amyl alcohol.**

45. The term ....is now applied to change brought about: by microorganisms.

a) Concentration.

**b) Fermentation.**

c) Aeration.

d) Crystallization.

46. ....is obtained by the distillation of wine.

a) Rum.

b) Gin.

**c) Brandy.**

d) Vodka.

47. Maltose is converted into glucose by..... Enzyme.

**a) Maltase.**

b) Diastase.

c) Invertase.

d) Zymase.

48. Sucrose is converted into glucose & Fructose by ..... enzyme.

a) Maltase.

b) Diastase.

**c) Invertase.**

d) Zymase.

49. Enzyme Zymase produces.....from glucose.

a) Acetone.

**b) Ethyl alcohol.**

c) Acetic acid.

d) Acetaldehyde.

50. Which Fermentation process is carried out at about 15 degree C temperature?

**a) Top Fermentation.**

b) Middle Fermentation.

c) Bottom Fermentation.

d) End Fermentation.

51. Fermentation process usually proceeds well only in the presence of.....

a) CO<sub>2</sub>

b) SO<sub>2</sub>

c) H<sub>2</sub>S

**d) Air.**

52. ....is obtained from grapes juice.

a) Beer.

**b) Wine.**

c) Whisky.

d) Vodka.

53. Coffee's still is used for.....

a) Distillation.

b) Crystallization.

**c) Fractional distillation of wash.**

d) Caramelization.

54. Denaturated alcohol is often sold as.....

a) Proof spirit.

**b) Methylated spirit.**

c) Rectified spirit.

d) Fusel oil.

55. Beer is obtained from.....

a) Black strap molasses.

b) Grapes juice.

c) Maize.

**d) Barely**

56. Generally Black strap molasses contains....% of Sucrose.

**a) 35-40**

b) 50-60

c) 60-70

d) 75-80

57. In presence of Diastase starch is converted into Maltose or salt sugar is called as.....

**a) Mashing**

b) Hydrolysis

c) Drying

d) Sparging

58. The Fermentation process was explored by.....

a) Liebig.

b) E. Butchner

**c) Louis Pasteur**

d) Either Ford

59. Glucose is converted into ethyl alcohol by ..... enzyme

**a) Zymase**

b) Maltase

c) Lipase

d) Invertase

60. The spirit stronger than proof spirit is called.....

a) Under proof spirit

**b) Over proof spirit**

c) Absolute alcohol

d) Rectified spirit.

61. The process of making alcohol undrinkable is called as.....

a) Saturation.

b) Rectification.

**c) Denaturation.**

d) Fermentation.

62. Which enzyme produced by yeast bring about Hydrolysis of Sucrose into glucose and Fructose...

a) Zymase.

**b) Invertase .**

c) Maltase.

d) Azobactor.

63. The alcohol obtain from coffeys still is about.....% pure.

a) 78-80%

**b) 90%**

c) 96%

d) 70%

64. Fructose is converted into ethanol by ..... enzyme.

**a) Zymase.**

b) Maltase.

c) Invertase.

d) Diastase.

65. Starch gets liquified at the temperature.....

a) 35 degree Celcius

b) 45 degree celcius.

c) 30 degree celcius

**d) 65 degree celcius.**

66. Fermentation of monosaccharides is

..... process.

a) Endothermic.

**b) Exothermic.**

c) Both a & b

d) None of above.

67. Starch is converted into Maltose by..... enzyme.

a) Maltase.

**b) Diastase.**

c) Invertase.

d) Zymase.

68. Germinated barely or wheat is called as.....

a) Salt

b) Brine

**c) Malt**

d) Spirit

69. Rectified spirit contains .....% ethyl alcohol.

a) 95.5

b) 96.7

c) 96.9

**d) 96.5**

70. Sugar industries in Maharashtra at present there are ..... co-operative sugar factories in operation.

a) 172

**b) 173**

c) 174

d) None of these.

71. Synthesis gas is mixture Synthesis.....

a) Natural source.

b)  $H_2O + CO_2$

**c)  $CO + H_2$**

d)  $H_2O + C$

72. Acetylene is used for production of.....

a) Per acetic acid.

b) Butadiene.

c) Vinyl Acetate.

**d) All of these.**

73. Cracking of methane to acetylene is.....

Reaction.

a) Endothermic

**b) Exothermic**

c) Both a & b

d) None of above.

74. The CO is desulphurised by passing over.....

- a) ZnO
- b) CrO<sub>3</sub>
- c) Activated carbon.**
- d) All the above.

75. In manufacturing of glycerin via allyl chloride .....,% of yield is obtained.

- a) 20.
- b) 40.
- c) 60.
- d) 80**

76. Methane is used for the preparation of.....

- a)  $\text{HCl}$  +  $\text{CCl}_4$ .**
- b) Dimethyl sulphate and Dimethyl ether.
- c) Acetylene and formic acid.
- d) All of these.

77. Methyl benzene is obtained from Methyl cyclohexane by.....

- a) Hydrogenation
- b) Hydration.
- c) Dehydration.
- d) Dehydrogenation.**

78. In the production of .....85%  $\text{H}_2\text{SO}_4$  trickle down from top.

- a) Isopropanol.**
- b) Acetone.
- c) Methanol.



d) All of these.

79. Petrochemicals are derived from.....

a) Diesel.

b) Synthetic sources.

c) Gasohol.

**d) Petroleum including natural gas.**

80. The steps involved in the production of acetone by oxidation of propylene are.....

**a) Reactor scrubber, Fractional distillation.**

b) Vaporizer, Reactor, condenser.

c) Reactor, condenser, scrubber.

d) All of these.

81. The Petroleum found in .....rocks.

a) Igneous.

b) Metamorphic.

**c) Sedimentary.**

d) None of these.

82. Oil saturated rocks shows ..... electrical resistivity.

a) Lower.

**b) Magnetic.**

c) Gravimetric.

d) Electric.

83. Efficiency of petrol is indicated by.....

**a) Octane number**

b) Cetane number

c) Power alcohol

d) Petrohol

84. Iso-octane has a Octane number.....

a) 0

b) 10

**c) 100**

d) 110

85. Octane number of triptane is.....

a) 100

b) 110

c) 0

**d) 124**

86. Which of the following increases Cetane number value?

**a) Alkyl nitrates.**

b) Alpha Methyl naphthalene.

c) Iso-octane.

d) Naphthalene.

87. ....% of alcohol requires mixing with gasoline for Gasohol.

a) 95

b) 96.5

**c) 99.5**

d) 90

88. The Petroleum compound containing 5\_16 carbon atoms are.....

**a) Liquids.**

b) Solids.

c) Gases.

d) All of these.

89. Breaking of larger molecules into smaller molecules in presence of heat alone without catalyst is.....

a) Hydrocracking.

**b) Thermal catalyst.**

c) Catalytic cracking.

d) All of these.

90. Which of the following raw materials used for manufacture of power alcohol or ethanol?

a) Saccharine material.

b) Cellulosic material.

c) Starchy material.

**d) All of these.**

91. Octane no. of 2, 2,4- trimethyl pentane is .....

**a) 100**

b) 0

c) 70

d) 90

92. ....method is fastest method for exploratory surveying.

a) Seismic

**b) Magnetic.**

c) Gravimetric.

d) Electric.

93. Legally permitted, maximum limit of TEL is .....per gallon.

a) 5 ml

b) 30 ml

c) 40 ml

**d) 3 ml**

94. Water gas is a mixture of.....

a) Natural sources.

b)  $H_2O+CO_2$

**c)  $CO_2+H_2$**

d)  $H_2O+C$

95. Exploration is.....

**a) Searching & Estimating Petroleum prospect.**

b) Use of Petroleum.

c) Refining of Petroleum.

d) All of these.

96. The ignition quality of a Diesel fuel is indicated by.....

a) Octane number.

**b) Cetane number.**

c) Power alcohol.

d) Petrohol.

97. Cetane no. is.....

**a) Capability of gasohol fuel self-ignition**

b) Capability of gasohol gas fuel self-ignition

c) Capability of hydrocarbon gas fuel self-ignition.

d) All of these.

98. Shell rock is.....

a) Straight chain hydrocarbon.

**b) Organic matter called kerogen.**

c) Branched chain hydrocarbon.

d) None of these.

99. The speed of shock wave in Sedimentary rocks is about ..... meter/second.

**a) 330**

b) 3000

c) 4300

d) 500

100. n-hexadecane has cetane number value is .....

a) 0

b) 45

c) 90

**d) 100**

