

EXERCISE-I

Dyes and Pigment

- An insoluble coloured compound formed by action of metallic salts on dyes is known as
(A) Lake (B) Mordant
(C) Dye intermediate (D) None of these
- Alizarin dye obtained from the root of madder plant is anthraquinone derivative. Its structure corresponds to
(A) 1, 2-dihydroxy anthraquinone
(B) 2, 3-dihydroxy anthraquinone
(C) 1, 4-dihydroxy anthraquinone
(D) 1-hydroxy anthraquinone
- To which class of dyes does phenolphthalein belong
(A) Azo dyes
(B) Nitro dyes
(C) Triphenyl methane dyes
(D) Phthalein dyes
- Alizarin a mordant dye is not used in
(A) Cotton dyeing
(B) Printing
(C) Painting
(D) Chromium lakes for wood dyeing
- The rose odour from an ester is formed by the action of $HCOOH$ on
(A) Pine oil (B) Olive oil
(C) Geraniol (D) Turpentine oil
- Which of the following is dye
(A) Methyl orange (B) Orange I
(C) Aniline yellow (D) All of these
- Which of the following is an example of basic dye
(A) Alizarin (B) Malachite green
(C) Indigo (D) Orange I
- Which of the following is a direct dye
(A) Phenolphthalein (B) Congo red
(C) Alizarin (D) Indigo
- Which of the following is a vat dye and often used in dyeing jeans
(A) Indigo (B) Alizarin
(C) Picric acid (D) Crystal violet
- Which of the following is not a chromophore
(A) $-N=N-$ (B) $-NO$
(C) $-NO_2$ (D) $-NH_2$
- The compounds used to fix a dye to the fabric is known as
(A) Mordant (B) Azeotrope
(C) Bleaching agents (D) Lake
- Which one is disperse dye
(A) Congo red (B) Alizarin
(C) Celliton (D) None of these
- Malachite green is a direct dye for silk and wool. It is prepared by condensing
(A) Benzaldehyde and dimethyl aniline
(B) Carbonyl chloride and dimethyl aniline
(C) Benzene diazonium chloride with dimethyl aniline
(D) None of the above
- Fluorescein, a well known dye is obtained by the reactions of
(A) Phthalic anhydride and phenol
(B) Phthalic anhydride and resorcinol
(C) Succinic acid and resorcinol
(D) Phthalic anhydride and catechol
- Indigo shows *cis-trans* isomerism. Which is the stable form of Indigo
(A) Cis (B) Trans
(C) Either cis or trans (D) Both of the above
- Which is the wrong statement with regards to Indigo
(A) Indigo was extracted in India from plants of the 'Indigo ferra' group
(B) The chemical structure of Indigo was determined by Baeyer, a German chemist who also synthesized it
(C) Indigo is a dark blue solid soluble in water giving a blue solution
(D) Indigo is fixed to fabrics by the vat process

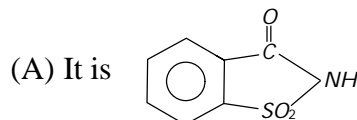
17. Which of the following structures represents a colourless substance
 (A) $C_6H_5 - N = \underset{\substack{| \\ O}}{N} - C_6H_5$
 (B) $C_6H_5 - N = N - C_6H_5$
 (C) $C_6H_5 - NH - NH - C_6H_5$
 (D) None of these
18. Identify the wrong statement regarding alizarin
 (A) Alizarin was extracted from the roots of the madder plant
 (B) Its chemical name is 1, 2-dihydroxy anthraquinone
 (C) It is fixed to fabrics by using mordants like aluminium sulphate giving fast red colour
 (D) It has red crystal soluble in alkalies and the solution imparts red colour to fabrics
19. Methyl orange is an indicator in acid-alkali titration. It gives
 (A) Yellow colour in alkaline medium
 (B) Red colour in acid medium
 (C) Yellow colour in acid medium
 (D) Yellow colour in alkaline medium and red colour in acid medium
20. A dye imparts red colour on fabric. What colour of light was absorbed by the dye
 (A) Blue (B) Red
 (C) Green (D) Orange
24. Which of the following drugs is an analgesic
 (A) Sulphaguanidine (B) Paludrin
 (C) Analgin (D) Iodex
25. Aspirin is
 (A) Antibiotic (B) Antipyretic
 (C) Sedative (D) Psychedelic
26. Which of the following drugs is a tranquilizer and sedative
 (A) Sulphadiazine (B) Papaverine
 (C) Equanil (D) Mescaline
27. Which of the following is a hypnotic drug
 (A) Luminal (B) Salol
 (C) Catechol (D) Chemisol
28. An antipyretic is
 (A) Quinine (B) Paracetamol
 (C) Luminal (D) Piperazine
29. The drug used as an antidepressant is
 (A) Luminol (B) Tofranil
 (C) Mescaline (D) Sulphadiazine
30. Chloramine-T is a
 (A) Disinfectant (B) Antiseptic
 (C) Analgesic (D) Antipyretic
31. Streptomycin is effective in the treatment of
 (A) Tuberculosis (B) Malaria
 (C) Typhoid (D) Cholera
32. Which of the following is not an antiseptic drug
 (A) Iodoform (B) Dettol
 (C) Gammexane (D) Genatian violet
33. Which is used for sterilization of water in water supply system of cities
 (A) Chlorine
 (B) Sulphurdioxide
 (C) Potassium permanganate
 (D) DDT
34. A drug effective in the treatment of pneumonia, bronchitis, etc, is
 (A) Streptomycin (B) Chloramphenicol
 (C) Penicillin (D) Sulphaguanidine
35. Aspirin is obtained by the reaction of CH_3COCl with
 (A) Phenol (B) Benzoic acid
 (C) Salicylic acid (D) Benzaldehyde

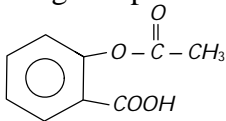
Drugs and Medicines

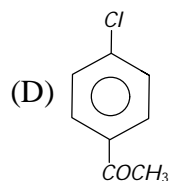
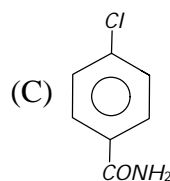
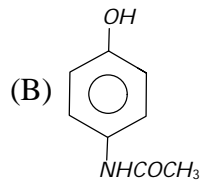
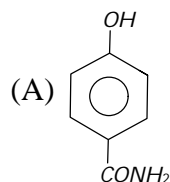
21. Acetoxy benzoic acid is
 (A) Antiseptic (B) Aspirin
 (C) Antibiotic (D) Mordant dye
22. Antiseptic chloroxylenol is
 (A) 4-chloro-3, 5-dimethylphenol
 (B) 3-chloro-4, 5-dimethylphenol
 (C) 4-chloro-2, 5-dimethylphenol
 (D) 5-chloro-3, 4-dimethylphenol
23. Which of the following is an insecticide
 (A) Bakelite (B) TNT
 (C) BHC (D) Aspirin

36. Salol can be used as
 (A) Antiseptic (B) Antipyretic
 (C) Analgesic (D) None of these
37. The drug which is effective in curing malaria is
 (A) Quinine (B) Aspirin
 (C) Analgin (D) Equanil
38. Morphine is
 (A) Anaesthetic (B) Analgesic
 (C) Antiseptic (D) Antibiotics
39. Which of the following is a hallucinogenic drug
 (A) Methedrine (B) Calmpose
 (C) LSD (D) Seconal
40. Heroin is a derivative of
 (A) Cocaine (B) Morphine
 (C) Caffeine (D) Nicotine
41. The first viral disease detected in human being was
 (A) Cold (B) Influenza
 (C) Small pox (D) Yellow fever
42. The formulation of dettol contains
 (A) Chloroxylenol (B) Terpeneol
 (C) Alcohol (D) All of these
43. Interferon is – Connected with
 (A) Tonic (B) Virus
 (C) Carbohydrate (D) Ore of iron
44. Measles is a disease which belongs to the category of
 (A) Bacterial disease (B) Viral disease
 (C) Veneral disease (D) Protozoan disease
45. Which are insecticides
 (A) Baygon (B) Savine
 (C) Methoxy chlor (D) All of these
46. Substance used for bringing down temperature in high fever are called
 (A) Pyretics (B) Antipyretics
 (C) Antibiotics (D) Antiseptics
47. A large number of antibiotics have been isolated from
 (A) Bacteria actinomycetes
 (B) Acids
 (C) Alkanals
 (D) Bacteria rhizobium
48. Hydrazine as a drug is also used in the treatment of
 (A) Typhoid (B) Cholera
 (C) Malaria (D) Tuberculosis
49. Arsenic drugs are mainly used in the treatment of
 (A) Jaundice (B) Typhoid
 (C) Syphilis (D) Cholera
50. The substances which effect the central nervous system and induce sleep are called
 (A) Tranquillizers (B) Antipyretics
 (C) Analgesics (D) None of these
51. Which one is communicable disease
 (A) Scurvy (B) Diabetes
 (C) Beri-Beri (D) Chollera
52. An antibiotic contains nitro group attached to aromatic nucleus. It is
 (A) Penicillin (B) Streptomycin
 (C) Tetracycline (D) Chloramphenicol
53. 2, 4-dichloro phenoxyacetic acid is used as a
 (A) Fungicide (B) Insecticide
 (C) Herbicide (D) Moth repellent
54. Sulpha drugs are used for
 (A) Precipitating bacteria
 (B) Removing bacteria
 (C) Decreasing the size of bacteria
 (D) Stopping the growth of bacteria
55. 'Placedo' is often given to patients. It is
 (A) An antidepressant
 (B) A broad spectrum antibiotic
 (C) A sugar pill
 (D) A tonic
56. Bithional is an example of
 (A) Disinfectant (B) Antiseptic
 (C) Antibiotic (D) Analgesic
57. Various phenol derivatives, tincture of iodine (2– 3% I_2 in water / alcohol) and some dyes like methylene blue are
 (A) Antiseptics (B) Disinfectants
 (C) Analgesics (D) Antipyretics
58. Which of the following is not an antipyretic
 (A) Aspirin (B) Paracetamol
 (C) Barbituric acid (D) Phenacetin

59. The insecticide containing 99% γ -isomer of benzene hexachloride is known as
 (A) Lindane (B) TNT
 (C) Malathion (D) Methoxychlor
60. Which of the following is not a chlorinated insecticide
 (A) DDT (B) Methoxychlor
 (C) Parathion (D) BHC
61. Sulphaguadine is used for
 (A) Dysentery (B) Urinary infections
 (C) Antiseptic (D) Antipyretic
62. Which is correct about vanillin
 (A) A flavouring agent having vanilla flavour
 (B) *o*-hydroxy-*m*-methoxy benzaldehyde
 (C) A food additive
 (D) All of these
63. Which is correct about saccharin



- (B) It is 600 times sweeter than sugar
 (C) It is used as sweetening agent
 (D) All of these
64. The following compound is used as
- 
- (A) An anti-inflammatory compound
 (B) Analgesic
 (C) Hypnotic
 (D) Antiseptic
65. The correct structure of the drug paracetamol is



66. Which of the following is an antidiabetic drug
 (A) Insulin (B) Penicillin
 (C) Chloroquine (D) Aspirin

67. Which of these is a hypnotic
 (A) Metaldehyde (B) Acetaldehyde
 (C) Paraldehyde (D) None of these
68. Which one is an antibiotic
 (A) Aspirin (B) Chloromycetin
 (C) Chloroquin (D) Madribon
69. Which of the following term means pain killing
 (A) Antibiotic (B) Analgesic
 (C) Antipyretic (D) Penicillin
70. 2-Acetoxy benzoic acid is used as an
 (A) Antimalarial (B) Antidepressant
 (C) Antiseptic (D) Antipyretic

Rocket - Propellant and Other

71. +A biliquid propellant contains
 (A) Liquid hydrazine
 (B) A mixture of liquid fuel and a liquid oxidizer
 (C) A solid rocket fuel
 (D) A liquid fuel which can also act as an oxidizer
72. A hybrid rocket propellant uses
 (A) A liquid oxidizer and a solid fuel
 (B) A composite solid propellant
 (C) A biliquid propellant
 (D) A solid, liquid and gas as a propellant
73. Which of these is not used as a fuel in the rocket propellants
 (A) Liquid He (B) Liquid hydrogen
 (C) Kerosene (D) Liquid hydrazine
74. A space rocket is propelled by
 (A) An automobile engine
 (B) Rocket propellant
 (C) Nuclear submarine
 (D) Steam engine
75. The propellant in the proposed PSLV rocket of the Indian space programme shall consist of
 (A) A composite solid propellant
 (B) Biliquid propellants such as N_2O_4 + unsymmetrical dimethyl hydrazine (UDMH) and N_2O_4 monomethyl hydrazine (MMH)
 (C) Both (A) and (B) in different stages of rocket propulsion
 (D) Kerosene and liquid oxygen

76. Which of the following is not used in rocket propellants
 (A) $H_2(l)$ (B) $O_2(l)$
 (C) $N_2H_4(l)$ (D) All of these
77. Thrust imparted to the rocket is governed by the
 (A) Third law of thermodynamics
 (B) Gravitational law
 (C) Newton's third law
 (D) None of these
78. A space rocket is propelled by
 (A) An automobilic engine
 (B) Nuclear engine
 (C) Steam engine
 (D) Mixture of fuel and oxidiser called propellant
79. A composite solid propellant consists of
 (A) Polyurethane or polybutadiene and ammonium perchlorate
 (B) Nitroglycerine and nitrocellulose
 (C) Hydrazine and N_2O_4
 (D) Kerosene and liquid oxygen
80. Which of the following represents a biliquid propellant
 (A) Nitroglycerine + nitrocellulose
 (B) N_2O_4 + acrylic rubber
 (C) N_2O_4 + unsymmetrical dimethyl hydrazine
 (D) None of these
81. What type of a propellant is used in rocket SLV-3 which was fired by India
 (A) Solid propellant
 (B) Monomethy hydrazine + liquid N_2O_4
 (C) Unsymmetrical dimethyl hydrazine liquid N_2O_4
 (D) Liquid oxygen
82. Which of the following is used as an oxidiser in rocket propellants
 (A) Kerosene (B) Nitric acid
 (C) Liquid oxygen (D) Liquid hydrogen
83. A combination of nitrocellulose and nitroglycerine is a propellant of the type
 (A) Hybrid propellant
 (B) Mono propellant
 (C) Double base propellant
 (D) Biliquid propellant
84. Which is the relation between the specific I_s impulse and the critical temperature T_c attained in a rocket blast
 (A) $I_s \geq T_c$ (B) I_s and T_c^2
 (C) $I_s \geq T_c^{1/2}$ (D) $I_s \geq 1/T_c$
85. The chemical compounds released by one species of animals in order to influence the behaviour of the other members of the same species are called
 (A) Pheromones (B) Hormones
 (C) Nucleic acid (D) Steroids
86. Structurally biodegradable detergent should contain
 (A) Normal alkyl chain
 (B) Branched alkyl chain
 (C) Phenyl side chain
 (D) Cyclohexyl side chain
87. Which of the following is not used in rocket propellants
 (A) $H_2(l)$ (B) $O_2(l)$
 (C) Methane (D) $N_2H_4(l)$
88. Which of the following is not used in nail polish
 (A) Acetone (B) Cellulose nitrate
 (C) Red dye (D) Benzene
89. One of the oxidants used with liquid propellants is
 (A) Ammonium perchlorate
 (B) Nitrocellulose
 (C) Sulphuric acid
 (D) Dinitrogen tetroxide (N_2O_4)
90. Detergents are prepared by the action of H_2SO_4 followed by neutralization by starting with
 (A) Cholesterol (B) Lauryl alcohol
 (C) Cyclohexanol (D) *p*-Nitrophenol