

# Exercise # 1

- Q.1** Which of the following statement is true?  
[1] Soaps and detergents both are used only in soft water  
[2] Soaps and detergents both are used in soft as well as hard water  
[3] Soap is used only in soft water while detergent can be used in soft as well as hard water  
[4] Detergent is used only in soft water while soap is used in soft and hard water both
- Q.2** Which of the following compounds cannot remove grease from the clothes ?  
[1] Gasoline [2] Potassium palmitate  
[3] Soap [4] Potassium pentanoate
- Q.3** Which of the following is the main component of bathing soap ?  
[1] Caustic potash [2] Glycerine [3] Potassium glycolate [4] Potassium stearate
- Q.4** Which of the following is present in a shaving soap ?  
[1] Sodium propionate + Gum + Glycerine  
[2] Sodium palmitate + Glycerine  
[3] Sodium potassium stearate + Gum + Glycerine  
[4] Sodium stearate + Wax + Glycerine
- Q.5** Which of the following catalysts is used in the modern method of preparation of soap by hydrolysis of fat using steam ?  
[1]  $\phi\text{SO}_2\text{Cl}$  [2]  $\text{CaCl}_2$  [3]  $\text{ZnO}$  [4] Conc.  $\text{H}_2\text{SO}_4$
- Q.6** Triacylglycerol cannot be associated with the following class of compounds :  
[1] Triglyceride [2] Oil and fat [3] Soap [4] Ester
- Q.7** Which of the following compounds is insoluble in water ?  
[1] Calcium salt of stearic acid [2] Calcium salt of heptadecanesulphonic acid  
[3] Magnesium salt of laurylsulphonic acid [4] Potassium salt of palmitic acid
- Q.8** What is the type of particle formed after the contact of sodium stearate molecules with grease particle ?  
[1] Neutral  
[2] Negatively charged  
[3] Positively charged  
[4] Positively charged from inside and negatively charged from outside
- Q.9** Which of the following is an ordinary soap ?  
[1] Sodium stearate [2] Calcium stearate [3] Sodium acetate [4] Sodium benzoate
- Q.10** Hydrolysis of an oil by caustic alkali is called ?  
[1] Esterification [2] Saponification [3] Acetylation [4] Carboxylation
- Q.11** Which of the following is not used in the preparation of a soap ?  
[1] Palmitic acid [2] Stearic acid [3] Lauric acid [4] Benzoic acid
- Q.12** Which of the following is not a correct statement with regard to stearic acid and oleic acid molecules ?  
[1] Both are fatty acids having same number of carbon atoms  
[2] Both are saturated fatty acids  
[3] One olefinic bond is present in oleic acid  
[4] The alkyl group of stearic acid contains 35 hydrogen atoms
- Q.13** Which of the following statements is incorrect regarding linseed oil ?  
[1] It is a drying oil [2] It is used in paints and varnishes  
[3] It is a vegetable oil [4] It is a triglyceride of saturated fatty acids

- Q.14** Which of the following compounds is formed on hydrogenolysis of tristearin ?  
 [1] Stearic acid [2] Octadecyl alcohol [3] Tricarboxylic acid [4] Heptadecyl alcohol
- Q.15** Which of the following compounds is formed on catalytic hydrogenolysis of triolein ?  
 [1] Oleic acid [2] Glycerol [3] Stearic acid [4] Tristearin
- Q.16** Which of the following compounds is not associated with the wax family ?  
 [1] Glycerol tristearate [2] Cetyl palmitate [3] Melissyl cerotate [4] Melissyl palmitate
- Q.17** Which of the following compounds are added to wax for preparation of candles ?  
 [A] Palmitic acid [B] Stearic acid [C] Arachidonic acid [D] Linoleic acid  
 [1] A and B [2] B and D [3] A and C [4] B and C
- Q.18** Which of the following compounds is an example of a non-ionic detergent ?  
 [1] Trimethyl cetyl ammonium bromide [2] Sodium lauryl sulphate  
 [3] Pentaerythritol monostearate [4] Sodium cetyl sulphate
- Q.19** Soaps and detergents are kept in the family of which of the following types of compounds ?  
 [1] Surface active [2] Surface inactive [3] Water soluble [4] Water insoluble
- Q.20** Brazil wax is also known by the following other name ?  
 [1] Wool wax [2] Carnauba wax [3] Beeswax [4] Spermaceti was
- Q.21** Wool wax is the ester of which of the following alcohols ?  
 [1] Cholesterol [2] Cetyl alcohol [3] Melissyl alcohol [4] Ceryl alcohol
- Q.22** In the production of soap by hot process, the liquor left after the separation of soap is called :  
 [1] Spent lye [2] Sweet lye [3] Both the above [4] Soda lye
- Q.23** Soap is :  
 [1] Colloidal electrolyte [2] Colloidal non-electrolyte  
 [3] Aerosol [4] None of the above
- Q.24** Detergent can be used in :  
 [1] Soft water only [2] Hard water only  
 [3] In both soft and hard water [4] All the ionic solvents
- Q.25** Hydrolysis (saponification) of a fat would yield :  
 [1] Ethanol and soap [2] Ethanol and butanoic acid  
 [3] Glycerol and soap [4] Triester of glycerol with fatty acid
- Q.26** Which of the following statement is wrong about detergent : **[MP PET 1989]**  
 [1] They are used in soft water only [2] They are used both in soft and hard water  
 [3] They decrease the surface tension of water [4] They can be prepared from benzene sulphonic acid
- Q.27** Which of the following acid cannot be used for making soaps : **[MP PET 1989, 94]**  
 [1] Palmitic acid [2] Stearic acid [3] Lauric acid [4] Benzoic acid
- Q.28** Hydrolysis of oil by caustic alkali is called : **[MP PMT 1988]**  
 [1] Esterification [2] Saponification [3] Acetylation [4] Carboxylation
- Q.29** Fat is : **[PET 1987]**  
 [1] Fatty acid [2] Soap [3] Glycerol [4] Ester
- Q.30** Soap is : **[PET 1987]**  
 [1] Sodium stearate [2] Calcium stearate [3] Sodium acetate [4] Sodium benzoate
- Q.31** Detergent is : **[PET 1988]**  
 [1] Sodium stearate [2] Sodium alkyl sulphonate  
 [3] Potassium butyrate [4] Sodium oleate



# Exercise # 1

- Q.1** Which of the following substances is not an example of an inorganic antiseptic ?  
[1]  $\text{Cl}_2$  [2]  $\text{I}_2$  [3]  $\text{SO}_2$  [4]  $\text{Br}_2$
- Q.2** Dyer's classification of dyes cannot be done on the basis of the following character  
[1] Behaviour [2] Procedure of dyeing [3] Structural unit [4] Use
- Q.3** Which of the following medicines is used in the treatment of tuberculosis ?  
[1] Penicillin [2] Streptomycin [3] Chloromycetin [4] Sulphadiazine
- Q.4** Chloramphenicol medicine is not used in the treatment of  
[1] Meningitis [2] Pneumonia [3] Typhoid [4] Tuberculosis
- Q.5** Which of the following substances is not used as a sedative medicine ?  
[1] Oxalylurea [2] Pneumonia [3] Veronal [4] Dial
- Q.6** Synthetic pheromones, which attract male gypsy moth are esters of which of the following acids ?  
[1] Acetic acid [2] Hexanoic acid [3] Decanoic acid [4] Dodecanoic acid
- Q.7** m-Xylohydroquinone is the compound of  
[1] cottonseed oil [2] pea oil [3] fungi [4] civet gland
- Q.8** Which of the following compounds is used in the synthesis of a parent compound of tranquillisers and sedative medicines by condensation with urea ?  
[1] Barbituric acid [2] Barbital [3] Malonic ester [4] Parabanic acid
- Q.9** Terpeniol and chloroxylenol are the compounds of which of the following classes ?  
[1] Disinfectant [2] Chemosterilant [3] Tranquillisers [4] Plant growth hormones
- Q.10** Benzidine is :  
[1] Analgesic [2] Antiallergic [3] Antidepressant [4] None
- Q.11** In basic dyes which of the following group is present ?  
[1]  $-\text{NO}_2$  [2]  $-\text{SO}_3\text{OH}$  [3]  $-\text{OH}$  [4]  $-\text{NH}_2$
- Q.12** Which of not considered as inorganic antiseptic :  
[1]  $\text{Cl}_2$  [2]  $\text{I}_2$  [3]  $\text{SO}_2$  [4]  $\text{Br}_2$
- Q.13** Which of the following is a hypnotic drug ?  
[1] Luminal [2] Salol [3] Catechol [4] Phenol
- Q.14** Which of the following represents a biliquid propellant ?  
[1]  $\text{N}_2\text{O}_4$  + acrylic rubber [2]  $\text{N}_2\text{O}_4$  + UDMH  
[3] Polybutadiene + ammonium perchlorat [4] Nitroglycerine + nitrocellulose
- Q.15** Malachite green and rosaniline belong to :  
[1] Azo dyes [2] Phthalein dyes [3] Anthraquinone dyes [4] Triphenylmethane dyes
- Q.16** Deepening of colour of compounds may be caused by which of the following :  
[1] Bathochromic group [2] Hypsochromic groups  
[3] Chromogens [4] All the above
- Q.17** Auxochrome does not deepens the colour of a chromogen if it is present at ..... position relative to chromophore :  
[1] Para [2] Meta [3] Ortho [4] None
- Q.18** Example of monopropellants is :  
[1]  $\text{CH}_3\text{ONO}_2$  [2]  $\text{CH}_3\text{NO}_2$  [3]  $\text{H}_2\text{O}_2$  [4] All of these
- Q.19** Paracetamol contains :  
[1]  $-\text{OH}$  and  $-\text{NHCO C}_6\text{H}_5$  groups [2]  $-\text{OH}$  and  $-\text{NH}_2$  groups  
[3]  $-\text{OH}$  and  $-\text{SO}_2\text{NH}_2$  group [4]  $-\text{OH}$  and  $-\text{NHCO CH}_3$  groups

- Q.20** The substance which affect the central nervous system and induce sleep are called :  
 [1] Antipyretics [2] Tranquilizers [3] Analgesics [4] None of above
- Q.21** Sulpha drugs are derivatives of :  
 [1] Benzenesulphonic acid [2] Sulphanilic acid  
 [3] Sulphanilamide [4] p-Aminobenzoic acid
- Q.22** Which of the following is a biliquid propellant ?  
 [1] Kerosene + Liquid oxygen [2] Nitrocellulose + nitroglycerine  
 [3] Polybutadiene + ammonium perchlorate [4] Acrylic rubber + liquid  $N_2O_4$
- Q.23** A substance which can act both as an antiseptic and disinfectant is :  
 [1] Aspirin [2] Chloroxylenol [3] Bithional [4] Phenol
- Q.24** The PSLV rocket proposes to use :  
 [1] Only solid propellants [2] Only monoliquid propellants  
 [3] Only biliquid propellants [4] Both solid biliquid propellants
- Q.25** An example of Vat dye is :  
 [1] Indigo [2] Alizarin [3] Malachite green [4] Martius yellow
- Q.26** Alizarin a mordant dye is used in :  
 [1] Cotton dyeing [2] Printing [3] Painting [4] Chromium lakes for wool dyeing
- Q.27** Which of the following is an azodye :  
 [1] Methyl orange [2] Phenolphthalein [3] Malachite green [4] Methylene blue
- Q.28** Which one of the following is not used as fuel in rocket propellants ?  
 [1] Liquid hydrazine [2] Liquid hydrogen [3] Kerosene oil [4] Liquid oxygen
- Q.29** Which of the following is an anthraquinone dye ?  
 [1] Indigo [2] Malachite green [3] Aniline yellow [4] Alizarin
- Q.30** Which of the following groups would you introduce into a drug or dye to make it water soluble ?  
 [1]  $-NO_2$  [2]  $-Cl$  [3]  $-SO_3H$  [4]  $-OH$
- Q.31** Which of the following pair is of auxochrome :  
 [1]  $-NH_2$ ,  $-NO_2$  [2]  $-N=N-$ ,  $-NR_2$  [3]  $-N=O$ ,  $-OH$  [4]  $-NHR$ ,  $-OH$
- Q.32** The "lakes" are :  
 [1] Acid dyes [2] Azo dyes [3] Mordant dyes [4] Metal salt of dyes
- Q.33** Fluorescein can be prepared from phthalic anhydride and :  
 [1] Phenol [2] Catechol [3] Resorcinol [4] Aminophenol
- Q.34** Regular use of which of the following fertilizers increases the acidity of soil ?  
 [1] Potassium nitrate [2] Urea  
 [3] Superphosphate of lime [4] Ammonium sulphate

## Answer Key

### Exercise

Qus.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	4	3	2	4	1	1	2	3	1	3	4	4	1	2	4	1	2	4	4	2
Qus.	21	22	23	24	25	26	27	28	29	30	31	32	33	34						
Ans.	3	1	4	4	1	3	1	4	4	3	4	4	3	4						