

Class: 12
Subject: chemistry
Topic: Chemistry in everyday life
No. of Questions: 25

1. Which of the following is a natural dye?

- a. Aniline blue
- b. Crystal violet
- c. Phenolphthalein
- d. Alizarin

Sol.(d)Alizarin is a natural dye.

2. Which of the following dyes has a nitro group?

- a. Indigo
- b. Phenolphthalein
- c. Martius yellow
- d. Melachite

Sol.(c)Martius yellow contains a nitro group.

3. Which of the following represents an example of azo dye?

- a. Martius yellow
- b. Alizarin
- c. Orange-I
- d. Phenolphthalein

Sol.(c)Orange-I is an azo dye.

4. For binding dye molecule with fibre, a mordant dye makes use of

- a. metal ion
- b. acid
- c. alkali
- d. wooden vat

Sol.(a)Metal ion is used for binding a mordant dye.

5. Which of the following may be used as antipyretic as well as analgesic?

- a. Aspirin
- b. Alkaloid codein
- c. Morphine
- d. Chloroform

Sol.(a)Aspirin is antipyretic as well as analgesic.

6. Which of the following analgesics is not habit-forming?

- a. Morphine
- b. Aspirin
- c. Codein
- d. Heroin

Sol.(b)Aspirin is not habit-forming.

7. Which of the following diseases is not caused by bacteria?

- a. Pneumonia
- b. Dysentery
- c. Tuberculosis
- d. Diphtheria

Sol.(b) Dysentery results from viral infections, bacterial infections, or parasitic infestations

8. Which of the following is viruses born disease?

- a. Pneumonia
 - b. Malaria
 - c. Diphtheria
 - d. Influenza
- D

Influenza is caused by viruses.

9. Which of the following is not an antibiotic?

- a. Piperazine
- b. Penicillin
- c. Streptomycin
- d. Chloramphenicol

Sol.(a)Piperazine is not an antibiotic.

10. Which of the following antibiotics is used to cure typhoid?

- a. Penicillin
- b. Chloramphenicol
- c. Tetracycline
- d. Streptomycin

Sol.(b)Chloroamphenicol is used to cure typhoid.

11. The substance used in the birth control pills is

- a. tetracycline
- b. sulphadiazine
- c. mestranol
- d. piperazine

Sol.(c)Mestranol is used in birth control pills.

12. Which of the following is an example of a double-base propellant?

- a. Polyurethane, ammonium perchlorate and magnesium
- b. Alcohol and oxygen
- c. Liquid N_2O_4 and acrylic rubber
- d. Nitromethane

Sol.(b)Alcohol and oxygen are used as double base propellant.

13. Which of the following is used as antioxidant in food preservation?

- a. Sodium benzoate
- b. Sodium sulphite
- c. Sorbic acid
- d. Salts of propanoic acid

Sol.(b) fact

14. Boric acid used in talcum powder serves as

- a. perspiration absorber
- b. masking enlarge pores
- c. antiseptic
- d. cooling agent

Sol.(c) Boric acid acts as antiseptic

15. Dish washing detergents commonly contain

- a. sodium alkyl benzene sulphonate
- b. cationic detergent
- c. anionic detergent
- d. nonionic detergent

Sol.(d) Dish washing detergents contains non ionic detergents.

16. Allergy in the body is caused by the production of

- a. vitamin
- b. hormone
- c. histamine
- d. enzymes

Sol.(c)histamine production leads to allergy.

17. Which of the following is used in cancer therapy?

- a. Co
- b. Ni
- c. Pt
- d. Pd

Sol.(a) Fact

18. Penicillin is

- a. a hormone
- b. an analgesic
- c. an antibiotic
- d. an antibody

Sol.(c) Penicillin is antibiotic.

19. Which of the following is an antipyretic?

- a. Luminal
- b. Seconal
- c. Phenacetin
- d. Equanil

Sol. (c) fact

20. Which of the following is a vat dye?

- a. Indigo
- b. Malachite green
- c. Orange-I
- d. Azo dye

Sol.(a)Indigo is a vat dye.

21.What are chromophore & chromogen? What is necessary for column chromophores or column bearing substance?

Sol. The presence of chromophore is not sufficient for colour. To make a substance coloured, the chromophore has to be conjugated with an extensive system of alternate single and double bonds as exists in aromatic compounds. A coloured compound having a chromophore is known as chromogen.

22 What are auxochromes?

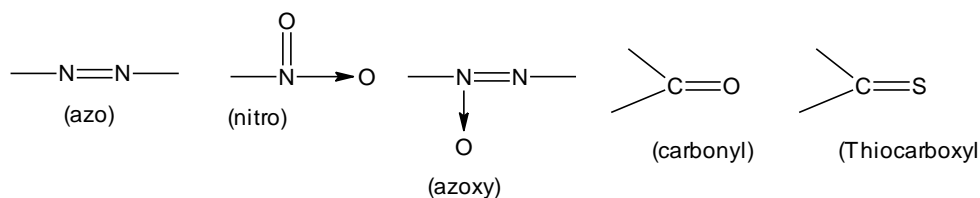
Sol. Certain groups, while not producing colour themselves, when present alongwith a chromophore in an organic substance intensify the colour. Such colour assisting groups are called auxochromes. The auxochromes are acidic or basic functional groups. Example

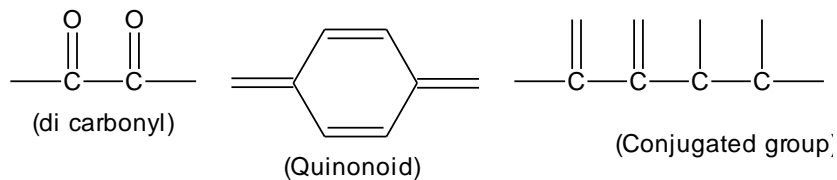
Acidic \rightarrow $-\text{OH}$ (Hydroxy), $-\text{SO}_3\text{H}$ (Sulphonic), $-\text{COOH}$ (Carboxylic)

Basic \rightarrow $-\text{NH}_2$ (Amino), $-\text{NHR}$ (alkyl acid), $-\text{NR}_2$ (dialkyl amine)

23. Which groups are responsible for colour?

Sol.The colour of the organic compound is due to the presence of certain multiple bonded groups called chromophores.





24. What are hard soaps and soft soaps? Give examples of soaps

Sol. Sodium salts of long chain fatty acids are known as hard soaps. They are prepared from cheap oils and fats and sodium hydroxide. They contain free alkali and are used for washing purpose. Potassium salts of long chain fatty acids are known as soft soaps. Soft soaps are prepared from good oils and potassium hydroxide. They do not contain free alkali, produce more lather and are used as toilet soaps, shaving creams and shampoos.

Example $C_{17}H_{35}COO^-Na^+$ \longrightarrow sodium stearate

$C_{15}H_{31}COO^-Na^+$ \longrightarrow sodium palmitate

25. What are the advantages of liquid propellants over solid propellants?

Sol. The main advantages of liquid propellants are

- They give a better thrust than solid propellants
- Their thrust can be controlled by regulating the flow of propellants.