

**Chemistry in Everyday Life**

2011

1. Which one of the following is employed as antihistamine? [CBSE AIPMT]

- |                      |                    |
|----------------------|--------------------|
| 1. Omeprazole        | 2. Chloramphenicol |
| 3. Depenyl hydramine | 4. Norethindrone   |

2. Which one of the following has antiseptic property? [Kerala CEE]

- |                    |                       |
|--------------------|-----------------------|
| 1. Dichloromethane | 2. Trichloromethane   |
| 3. Triiodomethane  | 4. Tetrachloromethane |

3. Terfenadine is commonly used as a/an [Kerala CEE]

- |                 |                       |                  |
|-----------------|-----------------------|------------------|
| 1. Tranquilizer | 2. Antihistamine      | 3. Antimicrobial |
| 4. Antibiotic   | 5. Antifertility drug |                  |

4. Which of the following is pheromone? [Guj.CET]

- |             |               |        |            |
|-------------|---------------|--------|------------|
| 1. Linalool | 2. Disparlure | 3. BHA | 4. Alitame |
|-------------|---------------|--------|------------|

5. Match metal ion (List I) with colour (List II) in presence of Alizarin [Guj.CET]

- | List-I |           | List-II |        |
|--------|-----------|---------|--------|
| I.     | $Sr^{2+}$ | A)      | Blue   |
| II.    | $Mg^{2+}$ | B)      | Pink   |
| III.   | $Al^{3+}$ | C)      | Violet |

IV.  $Ba^{2+}$  D) Red

1. I-A, II-D, III-C, IV-B

2. I-B, II-A, III-D, IV-C

2. I-C, II-B, III-A, IV-d

4. I-D, II-C, III-B, IV-A

2010

6. Which one of the following is employed as a tranquilizer drug?

[CBSE AIPMT]

1. Mifepristone

2. Promethazine

3. Valium

4. Naproxen

7. The chemical name of aspirin is

[CPMT, WB JEE]

1. Methyl Benzoate

2. Hydroxyl Benzoic Acid

3. Acetyl Salicylic Acid

3. Ethyl Salicylate

8. Potassium metabisulphite is a (an)

[MHT CET]

1. Preservative

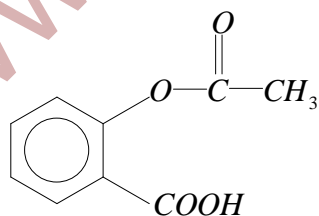
2. Antioxidant

3. Artificial Sweetener

4. Both (a) and (b)

9. The following compound is used as

[RPMT]



1. An anti-inflammatory compound

2. Analgesic

3. Hypnotic

4. Antiseptic



19. Select the detergent that is used to prepare cosmetics. [Guj.CET]

1. DDBS
2. Polyethylene glycol
3. Cetyltrimethylammonium chloride
4. LAS

20. Which type of dyes are not used do dye nylon and polyester fibers? [Guj.CET]

1. Vat dyes
2. Basic dyes
3. Disperse dyes
4. Insoluble azo dyes

2009

21. Assertion: Sodium-2-dodecyl benzenesulphonate is a biodegradable detergent.

Reason: Detergents having highly branched chains are biodegradable.

[AIIMS]

1. Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
2. Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
3. Assertion is true but Reason is false.
4. Both Assertion and Reason are false.

22. The role of phosphate in detergent power is to [CPMT]

1. Control pH level of the detergent water mixture.
2. Remove  $Ca^{2+}$  and  $Mg^{2+}$  ions from the water that causes the hardness of water.
3. Provide whiteness to the fabrics.

4. From solid detergent as phosphate-less detergent are liquid in nature.

**23. A dye that imparts different colours to the fabric with different metal ions is called** **[Kerala CEE]**

- |                |                 |            |
|----------------|-----------------|------------|
| 1. Mordant dye | 2. Disperse dye | 3. Vat dye |
| 4. Direct dye  | 5. Acid dye     |            |

**2008**

**24. Which of the following is a local anesthetic?** **[AMU]**

- |             |             |                   |                 |
|-------------|-------------|-------------------|-----------------|
| 1. Diazepam | 2. Procaine | 3. Chlorophenicol | 4. Penicillin-G |
|-------------|-------------|-------------------|-----------------|

**25. Which of the following is not true for antibiotics?** **[BHU]**

1. Tetracycline is one of the broad spectrum antibiotics which is effective against a large number of harmful micro-organisms.
2. Streptomycin is highly effective against micro-organisms which cause tuberculosis.
3. Penicillin has a narrow spectrum and certain persons are sensitive to it.
4. Penicillin may be administered without testing the patient's sensitivity to it.

**26. The functional groups present in 'salol' are** **[Punjab PMET]**

- |                      |                        |
|----------------------|------------------------|
| 1. $-NH_2$ and $-OR$ | 2. $-OH$ and $-COR$    |
| 3. $-OH$ and $-COR$  | 4. $-NH_2$ and $-COOR$ |

**27. Which of the following is used as an antibiotic?** **[DUMET]**

- |                  |                |
|------------------|----------------|
| 1. Ciprofloxacin | 2. Paracetamol |
| 3. Ibuprofen     | 4. Tocopherol  |

**28. Which of the following statement is not true? [Kerala CEE]**

1. Some disinfectants can be used as antiseptic at low concentration.
2. Sulphadiazine is a synthetic antibacterial.
3. Pheromones provide chemical means of establishing communication.
4. Aspirin is analgesic and antipyretic
5. Norethindrone is a pheromone.

**29. The environmental friendly method of killing harmful insects is through the use of [Kerala CEE]**

1. Insecticides
2. Sex Attractants
3. Sex Hormones
4. Pesticides
5. Antibiotics

**30. Tranquillisers are also known as [MHT CET]**

1. Psychosomatic drugs
2. Psychotherapeutic drugs
3. Psychosystolic drugs
4. None of the above

**31. Azo dye is prepared by the coupling of phenol and [AMU]**

1. Diazonium Chloride
2. o-Nitroaniline
3. Benzoic Acid
4. Chlorobenzene

**32. Benzaldehyde condenses with N,N-dimethylaniline in presence of anhydrous  $ZnCl_2$  to give [DUMET]**

1. Michler's Ketone
2. Azo Dye
3. Malachite Green
4. Buffer Yellow

2007

33. Chloramine-T is a [AFMC]

1. Disinfectant      2. Antiseptic      3. Analgesic      4. Antipyretic

34. Heart partients can be given [DUMET]

1. Monosaturated Fatty Acid      2. Trans Fatty Acid  
3. Polyunsaturated Fatty Acid      4. Polysaturated Fatty Acid

35. Which of the following is used as a 'morning after pill'? [Kerala CEE]

1. Notethindrone      2. Ethynylestradiol      3. Mifepristone  
4. Bithional      5. Promethazine

36. Paracetamol is an [JCECE]

1. Analgesic      2. Antipyretic      3. Both (a) and (b)      4. None of these

37. Which one of disperse dye? [AFMC]

1. Congo red      2. Alizarin      3. Celliton      4. None of these

38. The 'saponification value' of an oil or fat is measured in term of [AIIMS]

1.  $NH_4OH$       2. NaOH      3. KOH      4.  $C_6H_5OH$

39. Rayon is [AIIMS]

1. Natural silk      2. Artificial silk  
3. Natural plastic or rubber      4. Synthetic plastic

40. Which of the following process will give soap? [DUMET]

1. Hydrolysis      2. Saponification      3. Neutralisation      4. Acidification

41. An insoluble dye is reduced to a soluble colourless leuco form by an alkaline reducing agent. The fibre is soaked in the dye solution and then exposed to air to develop the colour. The dye is [Kerala CEE]

1. Mordant dye      2. Vat dye      3. Azo dye  
4. Direct dye      5. Disperse dye

42. Detergents are known to pollute rivers and waterways. However, detergents can be made biodegradable and pollution free by taking [Kerala CEE]

1. Cyclic Hydrocarbon Chain      2. Shorter Hydrocarbon Chain  
3. Hydrocarbon with more branching      4. Benzenoid Hydrocarbons

43. Select the basic dye from the following [Guj.CET]

1. Congo Red      2. Methyl Red      3. Methyl Orange      4. Malachite Green

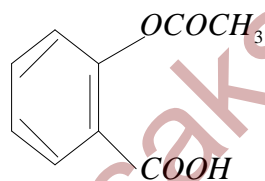
KEY

1) 2	2) 3	3) 2	4) 4	5) 4	6) 3	7) 3	8) 4	9) 2	10) 2
11) 3	12) 1	13) 3	14) 2	15) 4	16) 1	17) 2	18) 3	19) 3	20) 1
21) 4	22) 2	23) 1	24) 2	25) 4	26) 4	27) 1	28) 5	29) 2	30) 2
31) 1	32) 3	33) 2	34) 3	35) 3	36) 3	37) 3	38) 3	39) 2	40) 2
41) 2	42) 3	43) 4							



SOLUTIONS

1. Diphenyl hydramine is employed as antihistamine.
2. Triiodomethane or iodoform has antiseptic property and it is applied to wounds.
3. Terfenadine is an antihistamine. Antihistamine interferes with the natural action of histamine by competing with histamine for binding sites of receptor where histamine exerts its effect.
4. Disparlure is an example of pheromone (sex attractants)
6. I-D, II-C, III-B, IV-A
6. Valium is used as a tranquilizer drug.
7. The chemical formula of aspirin is



Thus, it is chemically acetyl salicylic acid.

8. Potassium meta bisulphite,  $K_2S_2O_5$ , is a white crystalline solid with pungent odour of sulphur. It is used as an antimicrobial preservative, antioxidant and bleaching agent in food.

10.	<b>Type of drugs</b>	<b>Work</b>
	Analgesics	Relieve pain

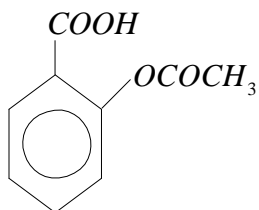
Antipyretics

Lower body temperature

Tranquilizers

For treatment of stress and mental diseases

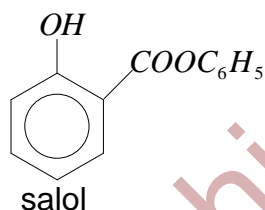
11. Aresenic drugs such as salvarsan are used for the treatment of syphilis.
13. Among the given sugars, sucrose is the natural sugar while other are artificial. Among artificial sugars, alitame is about 2000 times sweeter than cane sugar.
14. The chemicals that are used to bring down body temperature in high fever, are called antipyretics, e.g., paracetamol, analgin etc.
15. The structure of 2-acetoxy benzoic acid is



It is used as an analgesic (i.e., pain relieving drug) under the name aspirin.

16. Antibiotics have either cidal (killing) effect or static (inhibitory) effect on microbes. Erythromycin is a bacteriostatic antiseptic.
17.  $KMnO_4$  is used as an antiseptic
18. As soaps are the sodium and potassium salts of higher fatty acids, thus  $C_{17}H_{35}COONa$  sodium stearate is soap.
19. Cetyltrimethyl ammonium chloride is a cationic detergent. It is used to prepare cosmetic because it possesses germicidal properties.
20. Vat dyes are not used to dye nylon and polyester fibers but used to dye cotton fibers. Basic dyes disperse dyes and insoluble azo dyes however, are used to dye nylon and polyesters.

21. Detergents with straight chains (unbranched chains) are biodegradable. Since, sodium-2dodecylbenzenesulphonate has branched chain, it is a non-biodegradable detergent.
22. The role of phosphate in detergent power is to remove  $Ca^{2+}$  and  $Mg^{2+}$  ion from the water that causes the hardness of water.
23. Mordant dyes are used for dyeing fabrics in the presence of metal ions. In case of such dyes, the metals ion acts as binding agent between dye and fabric. A single mordent dye imparts different colours to the fabrics in the presence of different metal ions.
26. Salol is phenyl salicylate. The functional group present I salol are – OH and – COOR. Its structure is as



27. Ciprofloxacin is used as antibiotic while paracetamol, ibuprofen and tocopherol respectively, are antipyretic, pain killer and vitamin E.
28. Norethindrone is not a pheromone. It is a progestin hormone. It is used for treating certain menstrual and uterine problems. It works by altering the lining of uterus.
29. Sex attractant pheromones have been used for pest control (i.e., to kill harmful insects). This method is environment friendly.
34. Polyunsaturated fatty acid is given to heart patients.
35. Mifepristone is used as a 'morning after pill'.
36. Paracetamol is used as an antipyretic as well as analgesic.

37. Celliton is a disperse dye. Disperse dyes are usually applied in the form of dispersion of finely divided dye in a soap solution in the presence of phenol, cresol, benzoic acid etc. They are mainly used to dye Dacron, nylon, synthetic fiber.
38. Saponification value is the number of milligrams of KOH required to neutralize the fatty acid resulting from the complete hydrolysis of 1 g of oil or fat.

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