

Chemistry in Everyday Life

16.3 Therapeutic Action of Different Classes of Drugs

1. Among the following, the narrow spectrum antibiotic is
(a) chloramphenicol (b) penicillin G
(c) ampicillin (d) amoxycillin.
(NEET 2019)
2. Mixture of chloroxylenol and terpineol acts as
(a) antiseptic (b) antipyretic
(c) antibiotic (d) analgesic.
(NEET 2017)
3. Which of the following is an analgesic?
(a) Streptomycin (b) Chloromycetin
(c) Novalgin (d) Penicillin
(NEET-I 2016)
4. Bithional is generally added to the soaps as an additive to function as a/an
(a) buffering agent (b) antiseptic
(c) softener (d) dryer.
(2015, Cancelled)
5. Antiseptics and disinfectants either kill or prevent growth of microorganisms. Identify which of the following statements is not true.
(a) Dilute solutions of boric acid and hydrogen peroxide are strong antiseptics.
(b) Disinfectants harm the living tissues.
(c) A 0.2% solution of phenol is an antiseptic while 1% solution acts as a disinfectant.
(d) Chlorine and iodine are used as strong disinfectants.
(NEET 2013)
6. Dettol is the mixture of
(a) chloroxylenol and bithionol
(b) chloroxylenol and terpineol
(c) phenol and iodine
(d) terpineol and bithionol.
(Karnataka NEET 2013)
7. Chloroamphenicol is an
(a) antifertility drug
(b) antihistamine
(c) antiseptic and disinfectant
(d) antibiotic-broad spectrum. (Mains 2012)
8. Which one of the following is employed as Antihistamine?
(a) Chloramphenicol
(b) Diphenylhydramine
(c) Norethindrone
(d) Omeprazole (2011)
9. Which one of the following is employed as a tranquilizer drug?
(a) Promethazine (b) Valium
(c) Naproxen (d) Mifepriston (2010)
10. Which one of the following is employed as a tranquilizer?
(a) Naproxen (b) Tetracycline
(c) Chlorpheniramine (d) Equanil (2009)
11. Chloropicrin is obtained by the reaction of
(a) steam on carbon tetrachloride
(b) nitric acid on chlorobenzene
(c) chlorine on picric acid
(d) nitric acid on chloroform. (2004)
12. Aspirin is an acetylation product of
(a) *m*-hydroxybenzoic acid
(b) *o*-dihydroxybenzene
(c) *o*-hydroxybenzoic acid
(d) *p*-dihydroxybenzene. (1998)
13. Which of the following can possibly be used as analgesic without causing addiction and mood modification?

- (a) Diazepam
(b) Tetrahydrocannabinol
(c) Morphine
(d) *N*-Acetyl-para-aminophenol. (1997)

14. Which one of the following statements is not true?
(a) Ampicillin is a natural antibiotic.
(b) Aspirin is both analgesic and antipyretic.
(c) Sulphadiazine is a synthetic antibacterial drug.
(d) Some disinfectants can be used as antiseptics. (1994)
15. Diazo coupling is useful to prepare some
(a) pesticides (b) dyes
(c) proteins (d) vitamins. (1994)

16.4 Chemicals in Foods

16. The artificial sweetener stable at cooking temperature and does not provide calories is
(a) saccharin (b) aspartame
(c) sucralose (d) alitame. (Odisha NEET 2019)

17. Artificial sweetener which is stable under cold conditions only is
(a) saccharine
(b) sucralose
(c) aspartame
(d) alitame. (2014)

16.5 Cleansing Agents

18. Which of the following is a cationic detergent?
(a) Sodium lauryl sulphate
(b) Sodium stearate
(c) Cetyltrimethyl ammonium bromide
(d) Sodium dodecylbenzene sulphonate (NEET 2020)
19. Which of the following forms cationic micelles above certain concentration?
(a) Sodium dodecyl sulphate
(b) Sodium acetate
(c) Urea
(d) Cetyltrimethylammonium bromide (2004)

ANSWER KEY

1. (b) 2. (a) 3. (c) 4. (b) 5. (a) 6. (b) 7. (d) 8. (b) 9. (b) 10. (d)
11. (d) 12. (c) 13. (d) 14. (a) 15. (b) 16. (c) 17. (c) 18. (c) 19. (d)

Hints & Explanations

1. (b) : Penicillin G has a narrow spectrum. Chloramphenicol is a broad spectrum antibiotic. Ampicillin and amoxycillin are synthetic modifications of penicillins. These have broad spectrum.

2. (a) : Dettol which is a well known antiseptic is a mixture of chloroxylenol and α -terpineol in a suitable solvent.

3. (c) : Streptomycin, chloromycetin and penicillin are antibiotics while novalgin is an analgesic.

4. (b)

5. (a) : Dilute solutions of boric acid and hydrogen peroxide are weak antiseptics.

6. (b) : Dettol is the mixture of chloroxylenol and α -terpineol.

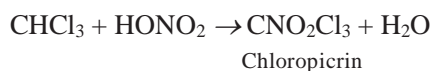
7. (d)

8. (b) : Diphenylhydramine is employed as antihistamine drug.

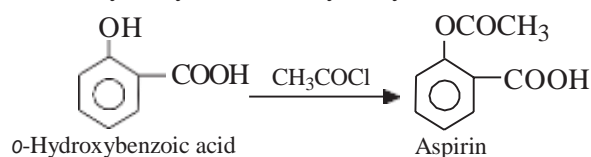
9. (b) : Valium is a tranquilizer.

10. (d) : Equanil is used for the treatment of stress, mild and severe mental diseases *i.e.*, as a tranquilizer.

11. (d) : When chloroform is treated with concentrated nitric acid, its hydrogen is replaced by nitro group.



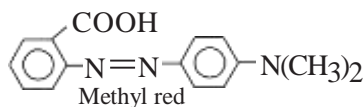
12. (c) : Aspirin is acetyl salicylic acid, which is formed by acetylation of *o*-hydroxybenzoic acid.



13. (d) : *N*-Acetyl-para-aminophenol (or paracetamol) is an antipyretic which can also be used as an analgesic to relieve pain without addition and mood modification.

14. (a) : Ampicillin is a modification of penicillin and thus is a synthetic antibiotic.

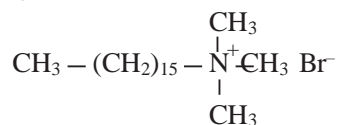
15. (b) : Azo dyes are derived by coupling of a phenol adsorbed on the surface of a fabric with a diazonium salt. Dyes can be prepared by diazo coupling. For example,



16. (c) : Sucralose is trichloro derivative of sucrose. Its appearance and taste is like sugar. It is stable at cooking temperature and it does not provide calories.

17. (c) : Aspartame is stable under cold conditions and unstable at cooking temperature.

18. (c) : Cetyltrimethyl ammonium bromide is a cationic detergent.



19. (d) : Cetyltrimethylammonium bromide is a popular cationic detergent.