

SOLUTION TEST-A

1. Aspartame is a methyl ester of the aspartic acid and phenylalanine dipetide. The other two are carbohydrate based sweetener.

The correct answer is (i)

2. Chloromycetin is an antibiotic
Chloroxylenol is an antiseptic

The correct answer is (ii)

3. Sodium lauryl sulphate → anionic detergent
n-Hexyl trimethyl ammonium chloride → Cationic detergent
Pentaerythryl stearate → non-ionic detergent

The correct answer is (ii)

4. The reason is wrong.

Soaps do not work in hard water. Soaps react with magnesium and calcium ions present in hard water to form scum.

The correct answer is (iii)

5. The antacids only neutralises the excess acid produced in the stomach. They do not destroy the root cause of production of acids in the stomach.

The correct answer is (iv)

6. Butylated hydroxyanisole is an antioxidant. It retards the action of oxygen on the food and helps in its preservation.
7. Paracetamol is an antipyretic. It help in lowering the body temperature is case of high fever.
8. Antiseptics are the chemicals which either kill or prevent the growth of microorganism. Disinfectants also kill microorganism but also affects the living human tissues. 0.2% solution of phenol is an antiseptic while its 1% solution is a disinfectant.

9. (i) Saccharin
(ii) Equanil (tranquiliser)
(iii) Narcotic analgesics (morphine)
(iv) Chloroamphenicol

10. (i) Excess use of NaHCO_3 as an antacid makes the stomach alkaline and trigger the formation of more HCl in the stomach.

(ii) SO_2 act as an antioxidant.

11. (i) Alitame is a high potency artificial sweetener.

(ii) In empty stomach, the aspirin gets hydrolysed to form salicylic acid which causes bleeding in the stomach and ulcer formation.

(iii) Sodium benzoate acts as a food preservative.

12. (i) **Antihistamines** are anti-allergic drugs and are used to treat allergy e.g., skin rashes.
Example: Chlorophenramine.

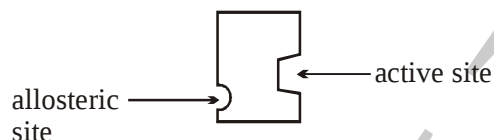
(ii) **Antifertility drugs** are used to control population. These drugs controls the female menstrual cycle and ovulation.

Example: Norethindrone

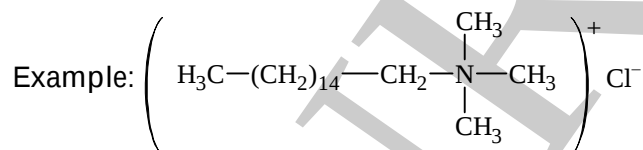
(iii) Non-narcotic analgesics

These drugs are used for relieving pain. Example. Aspirin, Ibrufen.

13. (i) Terpeneol
- (ii) Tincture of iodine is a 2–3% solution of iodine in $\text{H}_2\text{O} + \text{C}_2\text{H}_5\text{OH}$ mixture. It is used as an antiseptic.
- (iii) Cationic detergent cetyltrimethyl ammonium chloride.
14. (i) The drug when attacks at the enzyme and binds at some other site instead of active site. Then this different site is called as allosteric site.



- (ii) Bacteriostatic drugs are the type of antibiotics which inhibit the growth of bacteria.
Example: Chloroamphenicol, Tetracycline.
- (iii) Antipyretics are the chemical substances used to bring down the body temperature in case of high fever. Their use often leads to perspiration.
Example: paracetamol, phenacetin.
15. (a) **Cationic detergents** are those detergents in which the larger part of the molecule is positively charged. These are mostly chlorides or acetates of quaternary amines.



Cetyl trimethyl ammonium chloride.

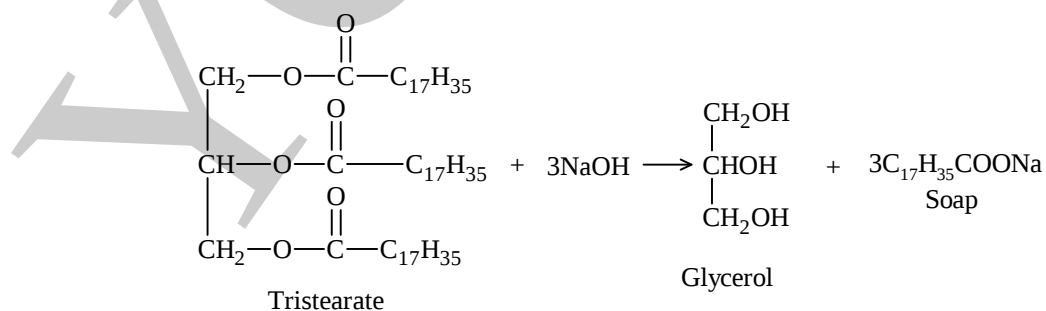
These detergents are used as germicides.

Anionic detergents are those detergents in which the larger part of the molecule is negatively charged. These are the sodium salts of the long chain sulphonic acid.

Example: Sodium steryl sulphonate $\text{CH}_3(\text{CH}_2)_{16}\text{CH}_2\text{OSO}_3^-\text{Na}^+$

These are used in laundry.

- (ii) Soap is prepared by the alkaline hydrolysis of vegetable fat or oil called triglycerides.



- (iii) Soap cannot be used with hard water as soap forms a curdy white precipitate of calcium / magnesium called Scum.

