# Very Short Answer Questions

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## Very Short Answer Questions (PYQ)

**Q.1. What is tincture of iodine?**

**[*CBSE (AI) 2008*]**

**Ans.** A 2-3 per cent solution of iodine in alcohol water mixture is known as tincture of iodine. It is used as an antiseptic.

**Q.2. Differentiate between disinfectants and antiseptics.**

**[*CBSE (AI) 2012*]**

**Ans.** Disinfectants are applied to non-living objects whereas antiseptics are applied to living tissues.

**Q.3. What is meant by 'narrow spectrum antibiotics'?**

**[*CBSE (F) 2012*]**

**Ans.** Antibiotics which are mainly effective against Gram-positive or Gram-negative bacteria are known as narrow spectrum antibiotics, *e.g*., penicillin G.

**Q.4. Define antihistamines with an example.**

**[*CBSE (F) 2014*]**

**Ans.** The drugs which interfere with the natural action of histamine by competing with histamine for binding of receptor where histamine exerts its effect are called antihistamine *e.g*., brompheniramine, terfenadine, cetirizine etc.

**Q.5. Which one of the following drugs is an antibiotic:** **[*CBSE (F) 2014*]**

**Morphine, Equanil, Chloramphenicol, Aspirin**

**Ans.** Chloramphenicol

**Q.6. Write the name of an antacid which is often used as a medicine.**

**[*CBSE (F) 2009*]**

**Ans.** Ranitidine (Zantac)

## Very Short Answer Questions (OIQ)

**Q.1. Which site of an enzyme is called allosteric site?**

**[*NCERT Exemplar*]**

**Ans.** Sites different from active site of enzyme where a molecule can bind and affect the active site is called allosteric site. Some drugs may also bind at this site.

**Q.2. Why is drug metabolism a major consideration in drug design?**

**Ans.** Most drugs and their active metabolites are rendered inactive or less active due to metabolism. A drug should be so designed that it reaches the target without being metabolised.

**Q.3. Why is it important to understand the mechanism of drug action and metabolic pathways in the biological systems?**

**Ans.** In order to improve the drug activity and to minimise side effects, one should understand the mechanism of drug action.

**Q.4. What are competitive inhibitors?**

**Ans.** The drugs which compete with the natural substrate or coenzyme for active site and thus inhibit the enzyme activity are called competitive inhibitors.

**Q.5. Name two types of chemical messengers.**

**Ans.** Neurotransmitters and hormones.

**Q.6. What are receptors?**

**Ans.** Proteins which are crucial to communication system in the body are called receptors.

**Q.7. Where are receptors located?**

**[*NCERT Exemplar*]**

**Ans.** Receptors are embedded in cell membrane.

**Q.8. What are agonists?**

**Ans.** Drugs that mimic the natural messenger by switching on the receptor are called agonists.

**Q.9. What are antagonists?**

**Ans.** Drugs that bind to the receptor site and inhibit its natural function are called antagonists.

**Q.10. What are pathogens?**

**Ans.** Pathogens are organisms that cause diseases.

**Q.11. Name two narcotics which are used as analgesics.**

**Ans.** Morphine and codeine are used as analgesics.

**Q.12. Name a drug used in mental depression.**

**Ans.** Equanil or barbituric acid derivatives such as seconal, veronal, luminal, etc.

**Q.13. What are antiseptics? Give an example.**

**[*NCERT Exemplar*]**

**Ans.** Chemical substances which prevent the growth of microorganisms or kill them but are not harmful to living tissues are called antiseptics. For example, dettol, savlon, etc.

**Q.14. Name the chemicals responsible for the antiseptic properties of dettol.**

**Ans.** Chloroxylenol and terpineol.

**Q.15. Which type of drugs come under antimicrobial drugs?**

**[*NCERT Exemplar*]**

**Ans.** Antiseptics, antibiotics and disinfectants.

**Q.16. What is the mode of action of antimicrobial drugs?**

**[*NCERT Exemplar*]**

**Ans.** Antimicrobial drugs can kill the microorganism such as bacteria, virus, fungi or other parasites. They can, alternatively, inhibit the pathogenic action of microbes.

**Q.17. Mention the pharmacological effect of most sulphonamides.**

**Ans.** Sulphonamides are antibacterial.

**Q.18. Name the antibiotic used specifically for treatment of typhoid fever.**

**Ans.** Chloramphenicol.

**Q.19. Give the name of one broad spectrum antibiotic.**

**Ans.** Tetracycline is broad spectrum antibiotic.

**Q.20. What is a bacteriostatic drug? Give examples.**

**Ans.** A drug which inhibits or arrests the growth of the disease-causing organism is called a bacteriostatic drug, *e.g*., erythromycin, tetracycline, chloramphenicol, etc.

**Q.21. Give one example of a (*i*) bactericidal antibiotic (*ii*) bacteriostatic antibiotic.**

**Ans.** (*i*) Penicillin (*ii*) Tetracycline.

**Q.22. What is an antipyretic? Give an example.**

**Ans.** Chemicals which are used to bring down the body temperature during high fever are called antipyretics. For example, paracetamol, aspirin, etc.

**Q.23. What is the nature of an antacid?**

**Ans.** Substances which reduce the release of excess HCl by preventing the interaction of histamine with the receptors present in the stomach wall are called antacids. The most commonly used antacids are cimetidine and ranitidine.

**Q.24. Name an antacid which prevents the formation of acid in the stomach.**

**Ans.** Cimetidine or ranitidine.

**Q.25. What is the harmful effect of hyperacidity?**

**[*NCERT Exemplar*]**

**Ans.** It can cause ulcer in stomach.

**Q.26. Name an artificial sweetener which is derivative of sucrose.**

**[*NCERT Exemplar*]**

**Ans.** Sucralose.

**Q.27. What is aspartame and what is its use?**

**Ans.** It is the methyl ester of the dipeptide derived from phenylalanine and aspartic acid. It is used as an artificial sweetener.

**Q.28. Name a few artificial sweeteners.**

**Ans.** Saccharin, aspartame, alitame, etc.

**Q.29. Name two α-amino acids which form a dipeptide which is 100 times more sweet than cane sugar.**

**[*NCERT Exemplar*]**

**Ans.** Aspartic acid and phenylalanine.

**Q.30. What are antioxidants?**

**Ans.** Antioxidants are important and necessary food additives that help in food preservation by retarding the action of oxygen on food. These are more reactive

towards oxygen than the food materials they are protecting. For example, butylated hydroxyl toluene (BHT) and butylated hydroxyl anisole (BHA).

**Q.31. Define soap.**

**Ans.** Soap is sodium or potassium salt of fatty acids, *e.g*., sodium palmitate.

**Q.32. How are transparent soaps manufactured?**

**[*NCERT Exemplar*]**

**Ans.** Dissolving soap in ethanol followed by evaporating the excess solvent.

**Q.33. Why is glycerol added to shaving soaps?**

**Ans.** Glycerol is added to shaving soaps to prevent rapid drying.

**Q.34. Give an example of an alkylbenzenesulphonate detergent.**

**Ans.** Sodium 4-(2-dodecyl) benzenesulphonate.

**Q.35. What is the chemical composition of cationic detergents?**

**Ans.** Mostly acetates or chlorides of quaternary amines.

**Q.36. The cleansing action of synthetic detergents is not affected by hard water. Mention the reason for the same.**

**Ans.** The anions of synthetic detergents do not precipitate in the presence of $Ca^{2+}$ and $Mg^{2+}$ ions.

**Q.37. Why are detergents preferred over soaps?**

**Ans.** Unlike soaps, detergents can be used even in hard water because like sodium salts, calcium and magnesium salts of sulphonic acids are soluble in water.

**Q.38. Pick out the odd one from the following on the basis of their medicinal properties: Chloroxylenol, Phenol, Chloramphenicol, Bithional.**

**Ans.** Chloramphenicol is a broad spectrum antibiotic whereas others are antiseptics.

**Q.39. Which one of the following is a food preservative?**

**Equanil, Morphine, Sodium benzoate**

**Ans.** Sodium benzoate.

**Q.40. Aspirin is pain relieving antipyretic drug but can be used to prevent heart attack. Explain.**

**[*NCERT Exemplar*] [*HOTS*]**

**Ans.** Aspirin prevents platelet coagulation and thus has antiblood clotting action. Therefore, it can prevent blood clotting in heart.

**Q.41. How do the drugs like brompheniramine and terfenadine (seldane) act as antihistamines?**

**[*HOTS*]**

**Ans.** They interfere with the natural action of histamine by competing with histamine for binding sites of receptor where histamine exerts its effect.

**Q.42. Between sodium hydrogencarbonate and magnesium hydroxide which is a better antacid and why?**

**[*NCERT Exemplar*] [*HOTS*]**

**Ans.** Magnesium hydroxide is a better antacid because being insoluble it does not allow the pH to increase above neutral. Hydrogencarbonate being soluble, its excess can make the stomach alkaline and trigger the production of even more acid.

# Short Answer Questions-I

## Short Answer Questions-I (PYQ)

**Q.1. What are food preservatives? Name two such substances.**

**[*CBSE (AI) 2012*]**

**Ans.** Food preservatives are the chemical substances which are added to food materials to prevent their spoilage and to retain their nutritive value for long periods. Preservatives prevent the rancidity of food and inhibit the growth of microorganisms or kill them. Two such substances are sodium benzoate and salts of ascorbic acid.

**Q.2. State a reason for each of the following statements:**

**Q. Soaps do not work in hard water.**

**Ans.** In hard water, soaps get precipitated as calcium and magnesium soap which being insoluble in water stick to the clothes as gummy mass.

**Q. The use of the sweetener aspartame is limited to cold foods and drinks.**

**[*CBSE (F) 2012*]**

**Ans.** This is because aspartame is unstable at cooking temperature.

## Short Answer Questions-I (OIQ)

**Q.1. Which site of an enzyme is called allosteric site? Explain its role in enzyme inhibition.**

**Ans.** Site different from active site of an enzyme where a drug molecule can bind is called allosteric site. Binding of drug at the allosteric site changes the shape of the active site in such a way that natural substrate cannot recognise it. Because of this the chemical change is inhibited.

**Q.2. List two major classes of antibiotics with examples of each class.**

**Ans.**

| (a) Bactericidal | (b) Bacteriostatic |
|---|---|
| **i.** Penicillin | **i.** Erythromycin |
| **ii.** Aminoglycosides | **ii.** Tetracycline |

| | |
|---|---|
| **iii.** Ofloxacin | **iii.** Chloramphenicol |

The full range of microorganisms attacked by an antibiotic is called its spectrum. Based on spectrum, antibiotics can be divided in two classes:

- **a.** Broad spectrum antibiotics *e.g*., chloramphenicol
- **b.** Narrow spectrum antibiotics *e.g*., penicillin G.

**Q.3. Explain the following lines giving one example of each type:**

**Q. Antiseptics**

**Ans.** Antiseptics are the chemical substances which prevent the growth of microorganism or may even kill them but are not harmful to living human tissues, *e.g*., dettol, soframycin, boric acid, hydrogen peroxide etc.

**Q. Antibiotics**

**Ans.** Antibiotics are the chemical substances produced wholly or partly by chemical synthesis, which in low concentrations, either kill or inhibit the growth of microorganisms by intervening in their metabolic processes. A few examples of antibiotics are chloramphenicol, oφλoxacin, penicillin.

**Q.4. Why are certain drugs called enzyme inhibitors?**

**[*NCERT Exemplar*]**

**Ans.** Enzymes have active sites that bind the substrate for effective and quick chemical reaction. The functional groups present at the active site of enzyme interact with functional groups of substrate via ionic bonding, hydrogen bonding, van der Waals interaction, etc. Some drugs interfere with this interaction by blocking the binding site of enzyme and prevent the binding of actual substrate with enzyme. This inhibits the catalytic activity of the enzyme, therefore, these are called inhibitors.

**Q.5. What are the functions performed by histamine in the body?**

**[*NCERT Exemplar*]**

**Ans.** Histamine is a potent vasodilator. It contracts muscles in the gut and bronchi. It relaxes some other muscles, *e.g.*, in the walls of blood vessels. Histamine is also responsible for congestion in the nose associated with common cold and allergies. Also, histamine stimulates the release of pepsin and hydrochloric acid in the stomach.

**Q.6. What is the advantage of using antihistamines over antacids in the treatment of acidity?**

**[*NCERT Exemplar*] [*HOTS*]**

**Ans.** Antacids control only the symptoms and not the cause. They work by neutralising the acid produced in the stomach. They do not control the cause of production of more acid. Antihistamines are the drugs that suppress the action of histamine, which is the chemical responsible for stimulation of secretion of pepsin and HCl in the stomach. Antihistamines influence and prevent the binding of histamine with the receptors present in the stomach wall resulting in lower acid production and therefore, better treatment.

**Q. 7. Give one important use each of the following in Pharmacy.**

**Q. Equanil**

**Ans.** Equanil is a tranquilizer. It is used for removing depression and hypertension.

**Q. Morphine.**

**Ans.** Morphine is an alkaloid. It is used as an analgesic.

**Q.8. How do antidepressant drugs counteract feeling of depression?**

**[*NCERT Exemplar*]**

**Ans.** Antidepressant drugs inhibit the enzyme which catalyses the degradation of noradrenaline. Thus, noradrenaline which acts as a neurotransmitter is slowly metabolised and continues to activate its receptor for a longer period of time. This activation of receptor for a long time counteracts the effect of depression.

**Q.9. If soap has high alkali content it irritates skin. How can the amount of excess alkali be determined? What can be the source of excess alkali?**

**[*NCERT Exemplar*]**

**Ans.** Acid–base titration can be used to determine the excess amount of alkali in soap. The excess alkali left after hydrolysis of oil can be the source of alkalinity in soap.

**Q.10. Why do soaps not function in hard water, for washing clothes? How are synthetic detergents better than soaps for this purpose?**

**Ans.** Hard water contains calcium and magnesium ions. Therefore, in hard water soap gets precipitated as calcium and magnesium soap which being insoluble stick to the cloth as gummy mass. Hence, soap cannot be used with hard water.

$$\underset{\text{Soap}}{2C_{17}H_{35}COO^{-}Na^{+}} + CaCl_2 \rightarrow 2NaCl + \underset{\substack{\text{Insoluble calcium}\\ \text{stearate (Soap)}}}{(C_{17}H_{35}COO)_2Ca}$$

On the other hand, calcium and magnesium salts of detergents are soluble in water so they easily form lather with hard water.

**Q.11. Answer the following questions:**

**Q. How do tranquilizers and analgesics work?**

**Ans.** Tranquilizers and analgesics work by altering the message transfer mechanism from nerve to receptor.

**Q. How does the branching of hydrocarbon chain of synthetic detergents affect their bio- degradability?**

**[*NCERT Exemplar*]**

**Ans.** Less branching leads to easy biodegradability.

**Q.12. Give reasons for the following:**

**Q. Sulpha drugs work like antibiotics but they are not antibiotics.**

**Ans.** This is because sulpha drugs are purely synthetic while antibiotics may be either wholly or partially obtained from microorganisms.

**Q. Soaps are biodegradable whereas detergents are non-biodegradable.**

**Ans.** Soap molecules have straight hydrocarbon chains which are easily degraded by bacteria present in the sewage water. On the other hand, detergent molecules have branched hydrocarbon chains which are either not attacked or slowly attacked by bacteria present in sewage water.

**Q.13. What is the medicinal use of narcotic drugs?**

[*NCERT Exemplar*]

**Ans.** Since narcotic drugs relieve pain and produce sleep, these are chiefly used for the relief of post-operative pain, cardiac pain and pain of terminal cancer and in child birth.

**Q.14. What is the scientific explanation for the feeling of depression?**

**[*NCERT Exemplar*]**

**Ans.** A person suffers from depression when he has low levels of noradrenaline. Noradrenaline is a neurotransmitter that plays a role in mood changes. Low levels of noradrenaline lower the signal sending activity and make the person suffer from depression.

# Short Answer Questions-II

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## Short Answer Questions-II (PYQ)

**Q.1. Explain the following terms giving one example of each type:**

**Q. Antacids**

**Ans. Antacids:** Chemical substances which remove excess acid in the stomach and raise the pH to appropriate level, *e.g*., sodium hydrogencarbonate, a mixture of aluminium and magnesium hydroxide, ranitidine, etc.

**Q. Disinfectants**

**Ans. Disinfectants:** These are the chemical substances which kill microorganisms or stop their growth but are harmful to human tissues, *e.g*., phenol (1%), chlorine in concentration of 0.2 to 0.4 ppm in aqueous solution, $SO_2$, etc.

**Q. Enzymes**

**[*CBSE Delhi 2012*]**

**Ans. Enzymes:** Enzymes are globular proteins with high molecular mass ranging from 15,000 to 1,000,000 g $mol^{-1}$, which form colloidal solution in water. A number of reactions that occur in the body of animals and plants to maintain the life processes are catalysed by enzymes, therefore enzymes are termed as biochemical catalysts.

**Q.2. Explain the following terms with one suitable example for each:**

**Q. A sweetening agent for diabetic patients.**

**Ans.** Artificial sweetening agents are chemical substances which are sweet in taste but do not add calories to our body. For example, saccharin. Its use is of great value to diabetic persons as it is excreted from the body through urine as such.

**Q. Enzymes**

**Ans.** Enzymes are catalysts of biological origin which accelerate various cellular reactions without themselves undergoing any apparent change during the course of action. Enzymes are highly specific in their action on substrate. Almost all the enzymes are globular proteins. Example: Lysozyme

**Q. Analgesics**

**[*CBSE Delhi 2011, (F) 2011*]**

**Ans.** Analgesics are chemical compounds which are used for relieving pain. Analgesics relieve pain by acting on central nervous system or on peripheral pain mechanism, without significantly affecting consciousness. There are two types of analgesics:

Narcotics — Morphine, cocaine, heroin

Non-narcotics — Aspirin, ibuprofen, etc.

**Q.3. Describe the following giving one example for each:**

**Q. Detergents**

**Ans. Synthetic Detergents:** These are the cleansing agents which have all properties of soaps, but actually do not contain any soap. These can be used both in soft and hard water as they give foam even in hard water. Synthetic detergents are of three types, namely anionic, cationic and non-ionic.

i. **Anionic detergents:** These are so named because large part of their molecules are anions and it is the anionic part of the molecule which is involved in the cleansing action. These are sodium salt of sulphonated long chain alcohols or hydrocarbons. For example, sodium lauryl sulphate, sodium dodecylbenzene sulphonate, etc. Anionic detergents are used in household work and in toothpastes.

ii. **Cationic detergents:** These are so called because large part of their molecules are cations and it is the cationic part of the molecule which is involved in the cleansing action. Cationic detergents are quaternary ammonium salts of amines with acetates, chlorides or bromides as anions. Cetyltrimethylammonium bromide is a cationic detergent and used in hair conditioners. Cationic detergents have germicidal properties and are expensive, therefore, these are of limited use.

iii. **Non-ionic detergents:** Non-ionic detergents do not contain any ion. These are esters of high molecular mass alcohols. One such detergent is formed when stearic acid reacts with polyethyleneglycol. Liquid dishwashing detergents are non-ionic type.

- The problem in the use of detergents is that if their hydrocarbon chain is highly branched then bacteria cannot degrade them easily. Slow degradation of detergents leads to their accumulation and this causes water pollution. Unbranched chain can be biodegraded more easily and hence pollution is prevented.

**Q. Food preservatives**

**Ans. Food Preservatives:** These are the chemical substances which are added to the food materials to prevent their spoilage due to microbial growth. The most commonly

used preservative include table salt, vegetable oil, sugar, potassium metabisulphite and sodium benzoate.

**Q. Antacids**

**[*CBSE Delhi 2011, (F) 2011*]**

**Ans. Antacids:** Chemical substances which remove the excess acid in the stomach and raise the pH to appropriate level, *e.g*., sodium hydrogencarbonate, a mixture of aluminium and magnesium hydroxide, ranitidine, etc.

**Q.4. What are the following substances? Give one example of each one of them:**

**Q. Tranquilizers**

**Ans.** Tranquilizers are a class of chemical compounds used for the treatment of stress, fatigue, and mild or even severe mental diseases. These relieve anxiety, stress, irritability or excitement by inducing a sense of well-being, *e.g*., iproniazid, chlordiazepoxide, equanil, luminal, etc.

**Q. Food preservatives**

**Ans.** Food preservatives are the chemical substances which are added to food materials to prevent their spoilage due to microbial growth and to retain their nutritive value for long periods. Preservatives prevent the rancidity of food and inhibit growth or kill the microorganisms. The most common preservatives used are sugar, vegetable oil, sodium benzoate, salts of ascorbic acid and propanoic acid.

**Q. Synthetic detergents**

**[*CBSE Delhi 2012*]**

**Ans.** Synthetic detergents are cleansing agents, which have all the properties of soaps but actually do not contain any soap. These can be used in both soft water and hard water as they produce foam even in hard water. These are mainly classified into three categories:

- Anionic detergents, *e.g*., sodium dodecylbenzene sulphonate
- Cationic detergents, *e.g.*, cetyltrimethyl ammonium bromide
- Non-ionic detergents, *e.g*., polyethylene glycol stearate

**Q.5. Explain the following types of substances with one suitable example, for each case:**

**Q. Cationic detergents**

**Ans. Cationic detergents:** These are so called because large part of their molecules are cations and it is the cationic part of the molecule which is involved in the cleansing action. Cationic detergents are quaternary ammonium salts of amines with acetates, chlorides or bromides as anions. Cetyltrimethylammonium bromide is a cationic detergent and used in hair conditioners. Cationic detergents have germicidal properties and are expensive, therefore, these are of limited use.

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**Ans. Food Preservatives:** These are the chemical substances which are added to the food materials to prevent their spoilage due to microbial growth. The most commonly used preservative include table salt, vegetable oil, sugar, potassium metabisulphite and sodium benzoate.

**Q. Analgesics**

**[*CBSE (F) 2009*]**

**Ans. Analgesic:** Drugs which reduce or abolish pain without causing impairment of consciousness, mental confusion, incoordination or paralysis or some other disturbances of nervous system are called analgesics. These are classified as follows:

i. **Non-narcotic analgesics:** These drugs are non-addictive. Aspirin and paracetamol are important examples of non-narcotic analgesics. These drugs are effective in relieving skeletal pain such as that due to arthritis. These drugs have many other effects such as reducing fever and preventing platelet coagulation.
ii. **Narcotic analgesics:** These are the drugs which when administered in small doses relieve pain and produce sleep. Alkaloids like morphine, codeine and heroin belong to the class of narcotic analgesics. These are chieφλy used for the relief of postoperative pain, cardiac pain and pains of terminal cancer, and in child birth.

## Short Answer Questions-II (OlQ)

**Q.1. Answer the following questions:**

**[*NCERT Exemplar*]**

**Q. Which class of drugs is used in sleeping pills?**

**Ans.** Tranquilizers.

**Q. What is the commonality between the antibiotic arsphenamine and azodye?**

**Ans.** Arsphenamine possesses —As=As— linkage that resembles —N=N— linkage in azodyes.

**Q. Pickles have a long shelf-life and do not get spoiled for months. Why?**

**Ans.** Plenty of salt and cover of oil act as preservative. These do not allow bacteria to thrive on them.

**Q.2. Answer the following questions:**

**[*NCERT Exemplar*]**

**Q. Dishwashing soaps are synthetic detergents. What is their chemical nature?**

**Ans.** They are non-ionic detergents.

**Q. What is the basic difference between antiseptics and disinfectants?**

**Ans.** Antiseptics are applied to living tissues whereas disinfectants are applied to non-living objects.

**Q. Which category of the synthetic detergents is used in toothpaste?**

**Ans.** Anionic detergent.

**Q.3. Answer the following questions:**

**[*CBSE Sample Paper 2016*]**

**Q. Pick out the odd one from among the following on the basis of their medicinal properties mentioning the reason: Luminal, Seconal, Phenacetin, Equanil.**

**Ans.** Phenacetin is an antiseptic, while the rest are tranquilizers.

**Q. Give an example of a substance that can act as a disinfectant as well as antiseptic depending upon its concentration. (Specify concentration)**

**Ans.** 0.2% solution of phenol acts as an antiseptic whereas 1% solution of phenol acts as disinfectant.

**Q. Name any two macromolecules chosen as drug targets.**

**Ans.** Biomolecules such as carbohydrates, proteins, lipids and nucleic acids.

**Q.4. What are the following substances? Give one example of each type.**

**Q. Antacids**

**Ans. Antacids:** Chemical substances which remove the excess acid in the stomach and raise the pH to appropriate level, *e.g*., sodium hydrogencarbonate, a mixture of aluminium and magnesium hydroxide, ranitidine, etc.

**Q. Anionic detergents**

**Ans. Anionic detergents:** These are so named because large part of their molecules are anions and it is the anionic part of the molecule which is involved in the cleansing action. These are sodium salt of sulphonated long chain alcohols or hydrocarbons. For example, sodium lauryl sulphate, sodium dodecylbenzene sulphonate, etc. Anionic detergents are used in household work and in toothpastes.

**Q. Antihistamines**

**Ans. Antihistamines:** Antihistamines are the drugs which interfere with the natural action of histamine by competing with histamine for binding sites of receptor where histamine exerts its effects. Brompheniramine, terfenadine, pheniramine maleate (avil), cetrizine and chlorpheniramine are some examples of antihistamines.