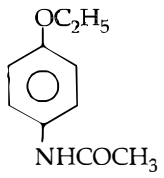
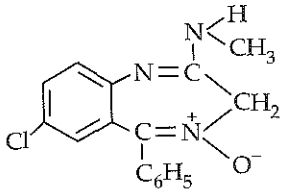
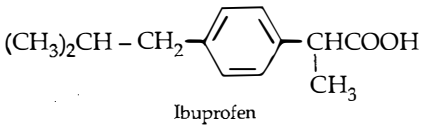
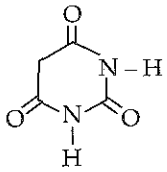
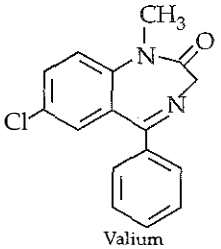
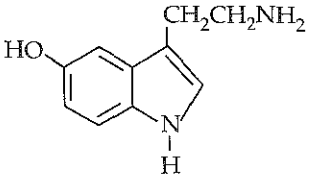

Phenacetin
(4-ethoxyacetanilide)

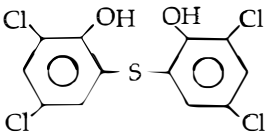

Chlorodiazepoxide

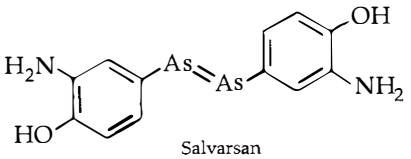

Ibuprofen

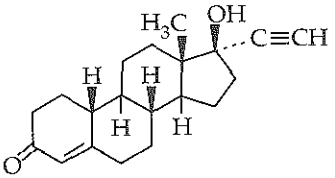

Barbituric acid

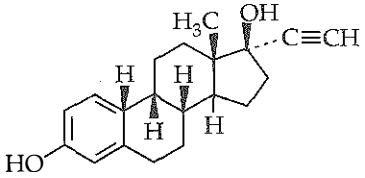

Valium

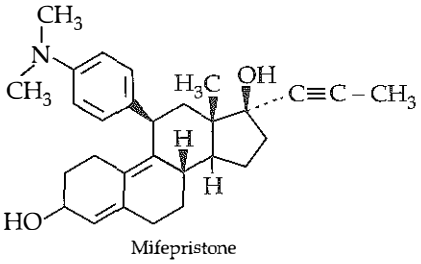

Serotonin

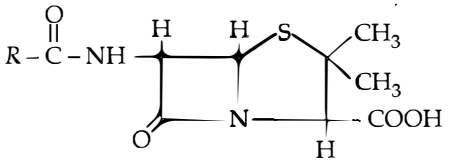

Bithional

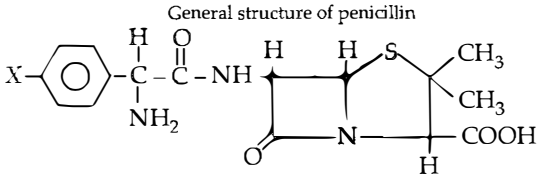

Salvarsan

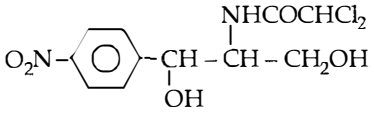

Norethindrone


Ethynylestradiol (novestrol)


Mifepristone


General structure of penicillin


X = H for ampicillin; X = OH for amoxycillin


Chloramphenicol

CHEMICALS IN FOOD

- **Preservatives** are the chemical substances which are added to the food materials to prevent their spoilage and to retain their nutritive value for long periods. These preservatives prevent the rancidity of food and inhibit the growth or kill the micro organisms.
  - The preservation of food by adding sufficient amount of salt to it is called **salting.** Salt prevents the water from being available for microbial growth.
  - The microbial growth in food materials can also be prevented by adding certain chemical substances. The most common preservative used is sodium benzoate (C_6H_5COONa). It is metabolised by conversion to hippuric acid, $C_6H_5CONHCH_2COOH$ which ultimately is excreted through urine.
  - Certain food preservatives such as BHA and BHT are used for edible oils, also act as antioxidants.
- **Artificial sweetening agents :** These are chemical compounds which give sweetening effect to the food and enhance its odour and flavour. *e.g.* saccharin, aspartame, alitame, etc.

Artificial sweetener	Sweetness value in comparison to cane sugar
Aspartame	180
Sucralose	650
Alitame	2000

- **Antioxidants :** These are the chemical substances which prevent oxidation and subsequent spoilage of the food. These act as sacrificial materials, *i.e.,* they are more reactive towards oxygen than the materials they are protecting. They also reduce the rate of involvement of free radicals in the ageing process.

CLEANSING AGENTS

- **Soaps :** They are sodium or potassium salts of higher fatty acids like stearic acid, oleic acid and palmitic acid. Soaps are formed by heating fat with aqueous sodium hydroxide solution. The reaction is called **saponification**.