

QUESTIONS FOR THE TOPIC “CARDIOSTEROIDS”

1. Definition of the terms: “Steroidal compound”, “Cardiac glycoside”, “Genin”, “Deoxysugar”, “Hydrolysis”.
2. Structures: cholesterol, cardenolide, bufadienolide, digitoxose, acetyldigitoxose, purpurea glycoside, digitoxin, lanatoside C, convallotoxin, K-strophanthoside, adonitoxin.
3. Describe the proper ring configuration in cardiac glycosides.
4. Describe the structure-activity correlation of cardiac glycosides depending on the radical at C₁₀.
5. Describe the structure-activity correlation of cardiac glycosides depending on the radical at C₁₇.
6. Describe the structure-activity correlation of cardiac glycosides depending on the sugar part.
7. Distribution of Cardiac glycosides.
8. Physical and chemical properties of Cardiac glycosides.
9. Effect of different hydrolysis types on cardiac glycosides.
10. Extraction of cardiac glycosides.
11. Identification of cardiac glycosides: reactions for steroidal core/ for aglycone/ for sugars.
12. Quantitative determination of cardiac glycosides.
13. Pharmacological effect of cardiac glycosides.
14. Medicinal plants, plant material and families: Purple Foxglove, Grecian Foxglove, Lily-of-the-Valley, Grey Wallflower, Strophanthus (3 Species), Adonis, Oleander, Squill, Hellebore.