

**PHARMACOGNOSY - III**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw diagrams wherever necessary.

**Essay**

**(3x10=30)**

1. Define glycosides and classify them. Explain the chemistry and biosynthetic pathway of cardio active glycosides
2. Explain in detail the world wide trade in medicinal plants and its role in the development of national economy
3. What are the applications of transgenic plants. Add a note on gene mapping of plants

**Short notes**

**(14x5=70)**

4. Chemistry of sesquiterpenes with example
5. Explain the pathway for the biosynthesis of atropine
6. Role of NMR spectroscopy in elucidation of structure
7. Define explants and explain the reagents used for sterilization of explants
8. Root tip culture
9. Define herbal nutraceuticals giving specific examples
10. Medicinally important lignans
11. Sources and the uses of pentacyclic triterpenoids
12. In-situ conservation of medicinal plants
13. Chemical evaluation of crude drugs
14. Chemistry and biogenesis of ephedrine
15. Isolation and culture of plant protoplasts
16. Herbs used in the development of herbal cosmetics
17. Methods of adulteration of crude drugs

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