

**QP Code: 104331**

**Reg No: .....**

**First Year M.Pharm Degree Examinations (Supplementary)- November 2012  
(Pharmaceutical Chemistry)**

**Paper IV - Chemistry of Natural Products**

**Time: 3 hrs**

**Maximum Marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays:**

**(2x20 =40)**

1. Outline the general isolation and purification methods of morphine and quinine. Elucidate the structure of any one of these alkaloids.
2. How does the analytical methods of GLC, HPLC, HPTLC, and counter current distribution help in the separation of cardiac glycosides.

**Short Essays:**

**(6x10=60)**

3. What are carotenoids. How do you bring the conversion of beta carotene to vitamin A.
4. How do you evaluate the herbal drugs for antiulcer and antioxidant properties.
5. Explain the therapeutic potential of marine natural products.
6. How do you elucidate the structure of xanthotoxins and psoralene.
7. What are the guidelines laid by WHO for evaluation of safety and efficacy of herbal medicines.
8. Discuss the chemistry of natural products having cosmetic value with examples.

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