

QP Code: 3314

Reg.No:.....

**M.Pharm Part I Degree Examinations – June 2012  
(Pharmaceutical Chemistry)  
Paper IV – Chemistry of Natural Products**

**Time:3hrs**

**Max marks:100**

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

**Essays:**

**(2x20=40)**

1. How do you evaluate herbal drugs for hepato protective, anti – inflammatory and analgesic properties with respect to WHO guidelines.
2. How does the  $IR^1$ HNMR,  $^{13}C$ NMR and mass structural data help in structural elucidation of natural products. Elucidate the structure of ergosterol.

**Short essays:**

**(6x10=60)**

3. What are flavonoids and explain the chemistry of quercetin.
4. Outline the synthesis of progesterone from diosgenine.
5. How do you elucidate the structure of citral and  $\alpha$ -terpineol.
6. Explain the bio – markers and fingerprinting of herbal drugs with suitable examples.
7. Comment on isolation and characterization of important nutraceuticals.
8. Explain the role of natural products in new drug development.

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