

QP Code: 107331

Reg No: .....

**First Year M.Pharm Degree Examinations August 2017**  
**(Pharmaceutical Chemistry)**

**Paper III – Chemistry of Natural Products**

**Time: 3 hrs**

**Maximum Marks: 100**

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

**Essays:**

**(2x20 =40)**

1. Explain in detail the identification of biomarkers and fingerprinting of herbal drugs
2. Discuss briefly WHO guidelines for evaluation of safety and efficacy of herbal medicines

**Short Essays:**

**(6x10=60)**

3. Discuss briefly the structural determination of psoralene
4. Explain the chemistry of quercetin
5. Discuss the chemistry of any one natural products having cosmetic value
6. Outline the synthesis of progesterone from diosgenin
7. Enumerate and explain all the qualitative reactions for the detection of plant constituents
8. Explain Hofmann's exhaustive methylation technique with special reference to Morphine

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