

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**M.PHARM. DEGREE EXAMINATION – December 2018  
Second Semester**

**BRANCH: PHARMACEUTICAL ANALYSIS**

**HERBAL AND COSMETIC ANALYSIS**

Time : Three hours

Maximum: 75 marks

**SECTION –A**

I. Answer any **THREE** questions: **(3 x 15 = 45)**

1. Describe the problems in the validation of herbal therapies. Discuss the pharmacodynamic and pharmacokinetic issues of herbal medicine.
2. Enumerate different types of adulterations/ substitutions of herbal drugs with appropriate examples. Explain the different causes and measures to avoid adulterations.
3. Discuss the WHO guidelines for the safety monitoring of natural medicine.
4. Explain in detail the general methods of analysis of raw materials used in cosmetic manufacture as per BIS.

**SECTION –B**

II. Answer any **THREE** questions: **(3 x 10 = 30)**

5. Describe the drug development process for ayurvedic formulations as per WHO guidelines.
6. Discuss the significance and procedure in determining the heavy metal contents and microbial contaminations in herbal formulations.
7. Explain in detail the adulterant screening methods using modern analytical instruments.
8. Discuss the method of analysis of hair products and skin creams according to BIS.

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