

**B.PHARM**  
**(SEM-VIII) THEORY EXAMINATION 2017-18**  
**STANDARDIZATION OF HERBAL DRUGS**

*Time: 3 Hours*

*Total Marks: 100*

**Note: 1.** Attempt all Sections.

**SECTION A**

**1. Attempt *all* questions in brief. 2 x 10 = 20**

- a. What do you mean by adulteration?
- b. Differentiate between morphology and morphography.
- c. Give example of two plant drugs that can be assayed by spectrofluorimetry.
- d. Which method is used to determine moisture content in volatile oil containing drugs?
- e. What are the components of ash?
- f. Name the apparatus used for the determination of volatile oil content in vegetable drugs.
- g. Give the formula used for the determination of maximum residue limits.
- h. What are the problems associated with standardization of herbal drugs?
- i. Name some modern techniques used to separate phytoconstituents.
- j. Name the chemicals used to induce hyperglycemia in laboratory animals.

**SECTION B**

**2. Attempt any *three* of the following: 10 x 3 = 30**

- a. Write in detail about microscopical evaluation of crude drugs.
- b. Highlight the importance of standardization in quality control. Describe various parameters of standardization of herbal drugs as per WHO guidelines.
- c. What do you mean by characterization? Give a comparative study between chemical and physical characterization of phytoconstituents.
- d. Give a detail account on quality control parameters to be fixed for herbal formulations where lead compound(s) are not available.
- e. Give a detail account on screening of plant extract for anti-inflammatory activity.

**SECTION C**

**3. Attempt any *one* part of the following: 10 x 1 = 10**

- (a) Define evaluation. Write in detail about organoleptic and physical evaluation of crude drugs.
- (b) What are the standards applicable to fixed and volatile oils. Discuss in detail.

**4. Attempt any *one* part of the following: 10 x 1 = 10**

- (a) Explain in detail about the problems associated with standardization of vegetable drugs and their formulations.

- (b) What are the various factors that should be taken care of to obtain better quality of herbal formulations? Elaborate in detail.

**5. Attempt any *one* part of the following: 10 x 1 = 10**

- (a) Explain the methods used to isolate phytoconstituents from fresh and dried plant material.
- (b) Discuss in detail about super critical fluid extraction technique and discuss its merits and demerits over soxhlation method.

**6. Attempt any *one* part of the following: 10 x 1 = 10**

- (a) What are lead compounds? Discuss the significance of lead molecules in phytochemical estimation in various herbal formulations as well as in raw materials.
- (b) What parameters has to be studied to fix standard of Asavaand Arishta?

**7. Attempt any *one* part of the following: 10 x 1 = 10**

- (a) Give the screening methods to screen plant extracts for Antibacterial activity.
- (b) Give a detail account on screening of Antifertility herbs.