



गुरु घासीदास विश्वविद्यालय, बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur
A Central University established by the Central University Act 2009 No. 25 of 2009



D.PHARMA



Department of Pharmacy



DIPLOMA IN PHARMACY (PART -I)

1.1 PHARMACEUTICS -I
THEORY (75 hours)

1. Introduction of different dosage forms. Their classification with examples- their relative applications. Familiarization with new drug delivery systems.
2. Introduction to Pharmacopoeias with special reference to the Indian Pharmacopoeia
3. Metrology-Systems of weights and measures. Calculations, including conversion from one to another system. Percentage calculations and adjustments of products. Use of alligation method in calculations isotonic solutions
4. **Packing of Pharmaceuticals:** Desirable features of a container-types of containers. Study of glass and plastics as materials for containers and rubber as material for closures-their merits and demerits. Introduction to aerosol packaging
5. **Size reduction:** Objectives and factors affecting size reduction, methods of size reduction-Study of Hammer mill, Ball mill, Fluid Energy Mill and Disintegrator.
6. **Size separation:** Size separation by sifting. Official Standard for powders. Sedimentation methods of size separation. Construction and working of cyclone separator.
7. **Mixing and Homogenisation:** Liquid mixing and powder mixing. Mixing of semisolids. Study of Silverson Mixer-Homogeniser, Planetary Mixer, Agitated powder mixer, Triple Roller Mill, Propeller Mixer, Colloid Mill and Hand Homogeniser. Double cone mixer.
8. **Clarification and Filtration:** Theory of filtration. Filter media. Filter aids and selection of filters. Study of the following filtration equipments- Filter Press, Sintered Filters, Filter Candles, Metafilter
9. **Extraction and Galenicals:**
(a) Study of percolation and maceration and their modification, continuous hot extraction - Applications in the preparation of tinctures and extracts
(b) Introduction to Ayurvedic dosage forms
10. **Heat Processes & Evaporation:** Definition Factors affecting evaporation -Study of evaporating still and Evaporating Pan
11. **Distillation:** Simple distillation and Fractional distillation; Steam distillation and vacuum distillation. Study of vacuum still, preparation of Purified Water I.P. and water for injection I.P. Construction and working of the still used for the same.

HEAD
S.L.T. Institute of Pharm. Sciences
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Bilaspur (C.G.)