Pharmaceutical Technology 1.

Topic list 2022/2023 autumn semester

1. Definition of medicine, dosage form
2. Excipients of pharmaceutical preparations
3. Classification of pharmaceutical preparations
4. The role and the subject of pharmaceutical technology
5. Pharmaceutical technological processes, operations and procedures
6. Solubility, permeability and dissolution of active substances
7. Classification of materials (according to origin, definition of API, excipients)
8. Conventional and biological medicines (definitions)
9. Microbiological classification of medicines
10. Parameters affecting the dissolution of active ingredients, the pharmaceutical technological significance of physical chemical properties of active substances
11. The dissolution rate, promotion (facilitation) of dissolution
12. Solvents of pharmaceutical preparations
13. Solubility increasing excipients (ie. cyclodextrins, surfactants, …)
14. Meaning and pharmaceutical technological significance of HLB
15. Aqueous solution-type preparations, stocks solutions
16. Syrups, flavoring agents
17. Elixirs, mixtures, concentrated aromatic water
18. Colloidal solutions, their significance in pharmaceutical technology
19. Liquid dosage forms: drops (peroral and external drops)
20. Pharmaceutical technological operations: theory of heat transfer
21. Pharmaceutical technological operations: heat exchangers, the heat reduction technology and its pharmaceutical technological relevance
22. Pharmaceutical technological operations: distillation and evaporation
23. Pharmaceutical technological operations: mixing of liquids
24. Pharmaceutical technological operations: mixing of solids
25. Theory and practice of filtration
26. Sedimentation, centrifugation theory and practice
27. Process of extraction

28. Process of extrusion
29. Equipments for extraction
30. Classification of extracts
31. Aseptic preparation
32. Importance of sterile pharmaceutical preparations, theory of sterility
33. Classification and application possibilities of procedures of sterilization
34. Heat sterilization methods
35. Exemption of pyrogens and pyrogen tests
36. General aspect of preparations of injections and infusions, examinations
37. Injections, infusions: definitions, classifications, quality requirements
38. Classification of infusions, aspects of preparation of infusion mixtures
39. Special infusions: volume replacement, osmotherapy, dialysis
40. Special infusions: possibilities of parenteral nutritions

Materials:

Lecture slides, notes

The Theory and Practice of Pharmaceutical Technology (Dr. Dévay Attila) – e-book (https://gytk.pte.hu/dokumentum/16632)