Name of Course	Pharmaceutics-I (General, Physical And Dispensing) (Written)
Marks	100 Marks
Introduction	Pharmaceutics-I (General, Physical, and Dispensing) is an essential course of study for pharmacy students. The course introduces the fundamental concepts of pharmacy and the different areas of practice in the field. The course focuses on physical chemistry principles, such as surface tension, viscosity, ionization, pH, and buffers, and their applications in pharmacy. Students also learn about different processes in pharmacy and their applications, including distillation, evaporation, and sublimation. Additionally, the course introduces various dosage forms and the basic principles of compounding and dispensing. Students learn about prescription handling, filling, interpretation, labeling, and the extemporaneous dispensing of different dosage forms. The course also covers aseptic dispensing and TPN dispensing, as well as incompatibility issues. By the end of the course, students will have a solid understanding of the basic principles of pharmacy and be prepared to work in a variety of pharmacy settings.
Learning Outcome	At the end of the course of Pharmaceutics-I (General, Physical, and Dispensing), students should be able to: 1. Understand the basics of various branches of pharmacy and their applications in the pharmaceutical industry and healthcare. 2. Understand the history of pharmacy and the contributions of Muslim scientists to the field of pharmacy. 3. Familiarize themselves with the official books used in pharmacy and their importance in the practice of pharmacy. 4. Understand the fundamental concepts of surface tension, viscosity, ionization, pH, pH indicators, buffers, isotonic solutions, and their applications in pharmacy. 5. Develop an understanding of the various physical processes involved in pharmacy, including adsorption, calcination, centrifugation, crystallization, decantation, deliquescence, desiccation, distillation, efflorescence, elutriation, evaporation, exsiccation, fusion, ignition, levigation, lyophilization, sublimation, trituration, and vaporization. 6. Gain knowledge of various dosage forms and their preparation methods. 7. Develop skills for compounding and dispensing, including the handling and interpretation of prescriptions, calculations for compounding and dispensing, containers and closures, and labeling. 8. Understand the principles of extemporaneous dispensing of solutions, suspensions, emulsions, creams and ointments, pastes and gels, suppositories and pessaries, powders and granules, and oral unit dosage forms. 9. Understand the basics of aseptic dispensing and TPN dispensing. 10. Gain knowledge of incompatibility and its effects on the quality and stability of pharmaceutical preparations.

Curriculum
1. Introduction of Pharmacy in relation to Hospital Pharmacy, Clinical Pharmacy, Retail Pharmacy, Industrial Pharmacy, and Forensic Pharmacy. 2. History of pharmacy with special reference to the contribution of Muslim scientists to Pharmacy. 3. An introduction of various official books used in Pharmacy. 4. Surface Tension, Viscosity, Ionization, pH, pH indicators, buffers, Isotonic solutions, and their applications in Pharmacy. 5. Introduction and application to the following processes in Pharmacy Adsorption, Calcination, Centrifugation, Crystallization, Decantation, Deliquescence, Desiccation, Distillation, Efflorescence, Elutriation, Evaporation, Exsication, Fusion, Ignition, Levigation, Lyophillization, Sublimation, Trituration, Vaporization, 6. Introduction to Various Dosage Forms 7. Basic Principles of Compounding and Dispensing Including: 8. Weights and Measures. Calculations for compounding and Dispensing. Containers and closures. Prescription-Handling, Filling, Interpretation. Labeling. 9. Extemporaneous Dispensing of Solutions, suspensions, emulsions, creams and ointments, pastes and gels, suppositories and pessaries, powders and granules, oral unit dosage form. 10. Introduction to Aseptic Dispensing and TPN Dispensing 11. Introduction to Incompatibility

Name of Course	Pharmaceutics-I (General, Physical And Dispensing) (Practical)
Marks	100 Marks
Introduction	Pharmaceutics-I (General, Physical, and Dispensing) is an essential course of study for pharmacy students. The course introduces the fundamental concepts of pharmacy and the different areas of practice in the field. The course focuses on physical chemistry principles, such as surface tension, viscosity, ionization, pH, and buffers, and their applications in pharmacy. Students also learn about different processes in pharmacy and their applications, including distillation, evaporation, and sublimation. Additionally, the course introduces various dosage forms and the basic principles of compounding and dispensing. Students learn about prescription handling, filling, interpretation, labeling, and the extemporaneous dispensing of different dosage forms. The course also covers aseptic dispensing and TPN dispensing, as well as incompatibility issues. By the end of the course, students will have a solid understanding of the basic principles of pharmacy and be prepared to work in a variety of pharmacy settings.
Learning Outcome	At the end of the course of Pharmaceutics-I (General, Physical, and Dispensing), students should be able to: 1. Understand the basics of various branches of pharmacy and their applications in the pharmaceutical industry and healthcare. 2. Understand the history of pharmacy and the contributions of Muslim scientists to the field of pharmacy. 3. Familiarize themselves with the official books used in pharmacy and their importance in the practice of pharmacy. 4. Understand the fundamental concepts of surface tension, viscosity, ionization, pH, pH indicators, buffers, isotonic solutions, and their applications in pharmacy. 5. Develop an understanding of the various physical processes involved in pharmacy, including adsorption, calcination, centrifugation, crystallization, decantation, deliquescence, desiccation, distillation, efflorescence, elutriation, evaporation, exsiccation, fusion, ignition, levigation, lyophilization, sublimation, trituration, and vaporization. 6. Gain knowledge of various dosage forms and their preparation methods. 7. Develop skills for compounding and dispensing, including the handling and interpretation of prescriptions, calculations for compounding and dispensing, containers and closures, and labeling. 8. Understand the principles of extemporaneous dispensing of solutions, suspensions, emulsions, creams and ointments, pastes and gels, suppositories and pessaries, powders and granules, and oral unit dosage forms. 9. Understand the basics of aseptic dispensing and TPN dispensing. 10. Gain knowledge of incompatibility and its effects on the quality and stability of pharmaceutical preparations.

Curriculum
1. Experiments to demonstrate some of the physicochemical processes like simple distillation, steam distillation, crystallization, and Dialysis. 2. Preparation of Buffer solutions and isotonic solutions 3. Determination of %age composition of solutions by specific gravity method. 4. Partition-coefficient, surface tension, viscosity 5. A practical introduction to prescription, interpretation, and Labeling. Dispensing of various dosage forms.