

B. PHARMACY FIRST YEAR FIRST SEMESTER EXAMINATION-2025**Subject: Pharmaceutics-I**

Time: 3 hours Full Marks: 75

Answer any five questions taking at least one from each group

Group: A

1. Define suspensions. Classify suspensions. What are the different vehicles used solution dosage form? What is the difference between enemas and douches? Discuss collodions. 2+3+3+3+4=15
2. Write short notes on any three of the following 5×3=15
 - a) Flocculated and deflocculated suspensions
 - b) Simple syrup IP.
 - c) Classification of suppositories
 - d) Suppository molds.

Group: B

3. What is papyrus ebers?. Give the importance of Late Col. R. N. Chopra Drug enquiry committee. Define dosage forms. Write about the following dosage forms and differentiate them from each other: (a) Tincture and solution, (b) Cataplasm and bandage, (c) linctus and expectorant, (d) cream and ointments, (e) insufflations and snuffs. 1+2+2+(2×5)=15
4. Define a prescription. Discuss the various parts of a prescription with their importance. Give the meaning of the words in English: Modo dictum, T.i.d., omnibora, capiendus. Define posology. Calculate the dose of a child of 4 years old when adult dose is 300 mg. What are extra-pharmacopoeia? Give an example. In which Pharmacopoeia, veterinary products have been included as an addendum? 2+7+2+1+1+1+1= 15
5. Define emulsion. Write different methods to identify emulsion types. What is phase inversion? Write the causes of it. Please see the following formula of an emulsion and calculate the percentage of the emulsifying agents (Span 80, HLB 4.3 and Tween 80, HLB 15) required for it.
Liquid paraffin-35% (HLB 12)
Bees wax-1% ((HLB 10)
Cetyl alcohol-1% (HLB 15)
Emulsifying agent-7%
Water q.s. 100% 2+6+1+2+4 =15

Group: C

6. Write details on the factors affecting skin drug permeability. 15
7. i) (a) Why yellow soft paraffin is used in ophthalmic preparation instead of white soft paraffin?
(b) Why paste is more stiff than ointment?
(c) Why glycerol is used in jellies?
(d) What is lanolin?
(e) Define antiseptic.
ii) Write the advantages of water soluble bases. 5×2+5=15

Group: D

8. Answer any 3 of the following:
 - i) A solution contains 5 ppm (parts per million) of an impurity. Convert this strength into % (w/w).
 - ii) Calculate the amount of NaCl in 10 microliter of a 1 M solution.
 - iii) By Alligation Alternate method calculate how many parts of 80%, 60%, 40% & 30% alcohol be mixed together to get 50% alcohol?
 - iv) Find the concentration of sodium chloride required to render a 1.5% solution of procain hydrochloride iso-osmotic with blood plasma. [The freezing point of 1% (w/v) solution of procain hydrochloride is -0.122°C, and that of a 1% (w/v) solution of NaCl is -0.576°C]. 5×3=15
9. A) Answer any three of the following:
 - i) What do you mean by sensitivity of an analytical balance?
 - ii) How will you supply 10 capsules each containing 600 micrograms of Hyoscine hydrobromide?
 - iii) Alcohol dilution & related percentage & volume charges.
 - iv) Mechanism involved in reverse osmosis.
- B) Give classical examples of different kinds of incompatibilities in prescription, along with their remedies. 3×3+6= 15