

B.Pharm. 1st year 1st semester Examination, Session 2021-22

Sub: Pharmaceutics I Ref: Ex/BP 103T

Total Marks 100 Time 3 hr

Each question carries 20 marks. Answer any 05 questions taking at least ONE from each group.

Group A

1. Answer any 4 of the following: (4*5)
 - a) What is the difference between a gargle and a mouth wash?
 - b) Define syrup. Why syrups have self-preservative action? (3+2)
 - c) Discuss about formulation of solutions.
 - d) What is a suppository? What are the different types of suppositories? (2+3)
 - e) What are the pharmaceutical applications of suspensions?
2. a) Discuss (with examples) on the mechanisms by which a drug is released from a suppository base. What are the various properties that an ideal suppository base should have? (4+6)
b) Write about the various formulation aspects of a suspensions? Why we try to prepare a flocculated suspension? (6+4)

Group B

3. Write in detail about the mechanism of dermal drug penetration. Enumerate the factors influencing dermal drug penetration.
4. Differentiate paste and ointment. Why white soft paraffin not recommended for use in ophthalmic preparations? Describe the evaluation parameters of semi-solid dosage forms.

Group C

5. a) A solution contains 15ppm (parts per million) active ingredients. Convert this strength into % W/V.
b) A solution that contains 819mg of NaCl/200ml has how many mEq of Na⁺ and Cl⁻?
c) By alligation Alternate methods calculate how much ml of 90% alcohol to be mixed with 500 ml of 30% alcohol to produce 70% alcohol.
d) Find the concentration of sodium chloride required to render a 1.5% solution of procaine hydrochloride iso-osmotic with blood plasma. (The freezing point of 1% w/v solution of procaine hydrochloride is -0.122°C, and that of a 1% w/v solution of NaCl is -0.576°C. (5*4)
6. a) Explain the following: (5*2)
 - i) Sensitivity of an analytical balance.

- ii) Minimum weighable amount
- iii) Alcohol dilution
- iv) Reverse osmosis
- v) Incompatibility in prescription

b) Give two classical examples of physical, chemical and therapeutical incompatibilities and suggest their remedies. (10)

Group D

7. What was the late R N Chopra's drug engineering committee in 1930? Give its importance. When was the Drug and Cosmetics Act adopted? What do you mean by extra Pharmacopoeia? What is Papyrus Ebers? Which edition of Indian Pharmacopoeia had an addendum for veterinary products? What do you mean by dosage form? What is a cataplasm? What is a tincture? What is posology? An adult dose of a drug is 600mg. Calculate its dose in a 6-year-old child by two different methods. The weight of the child is 5kg. Calculate the dose.

$$1+2+1+2+2+1+2+2+2+2+3=20$$

8. What is a prescription? Write about the various parts of a prescript and their importance. Give the meaning of the following terms
B.i.d , Capiendus, Omnibora, Quotidie.
What do you mean by emulgent? Write its role in stabilizing an emulsion. Classify emulgent with examples. What are HLB values? Give HLB values for o/w and w/o emulsions.

$$2+7+2+2+2+3+2=20$$

or

Define emulsion. How will you identify various emulsion types? Write the wet gum method of preparation of a primary emulsion. How will you prevent creaming industrially? Write about cracking and phase inversion of an emulsion and their prevention procedures.

$$2+6+4+3+5=20$$