Ref. No.: EX/BP103/2024

B. PHARMACY FIRST YEAR FIRST SEMISTER EXAMINATION-2024

Subject: Pharmaceutics-I

Time: 3 hours Full Marks: 75

Answer any five questions taking at least one from each group

Group: A

Q1. Define a prescription. Describe the different parts. Write the English meaning of the flowing terms: ante cibos, cochleare, maneque, collutorium

What is posology? Give any four reasons for the variation of doses between a child and an adult of the same drug. Give four reasons for the variation of the doses between the adults of the same age group.

The adult dose of a drug is 300 mg/day. Calculate the dose of the drug for the patient of 10 years, and a patient of 6 Kg body weight. 1+4+2+1+2+2+2 = 15

Q2. (a) Who compiled Kitab al-Saydalah? Give its importance. Who established Bengal Chemical and Pharmaceutical works and in which year? What is its importance? What do you mean by extra pharmacopoeia? Write the names of different types of liquid dosages forms. What do you mean by phase inversion? Give two reasons for phase inversion. Why is glycerine not added as viscosity inducer for preventing creaming of an emulsion? Give the reasons for cracking of an emulsion.

(b) Formula of an emulsion preparation is given below

Liquid paraffin	38%
Wool fat	2%
Cetyl alcohol	1%
Emulgent	8%
Water q. s. to	100 %

Using Span 80 and Tween 80 blend, provide the right formula of the emulsion.

1+1+1+1+1+1+2+1+1+1+2+2 = 15

Group B

Q3. Define solutions. Classify solution dosage form according to the route of administration. What are the advantages of the solution dosage form? What is the difference between gargle and mouth wash? Discuss elixirs. 2+4+3+2+4=15

Q4. Write short notes on any three of the following 5*3=15

a) Flocculated and deflocculated suspensions
b) Sedimentation parameters
c) Classification of suppositories
d) Fatty suppository base.

[Turn over

Group C

Q. 5. i) What will be the final strength (v/v) of ethanol when 1 liter 100% ethanol (v/v) is mixed with 1 liter 100% water? (considering the temperature remains constant & there is no loss due to volatility).

ii) A solution that contains 372.6 mg of KCl/100 ml has how many mEq of K+ & Cl-?

iii) By Alligation Alternate method calculate how much ml of 90% alcohol to be mixed with 500 ml of 30% alcohol to produce 70% alcohol. 5X3=15

Q.6. A) Explain the following:

i) Sensitivity of an analytical balance & its importance in dispensing.

ii) Minimum weighable amount in an analytical balance & it's significance.

iii) Reverse osmosis (3x3)

2. B) Give two classical examples of each of physical, chemical & therapeutical incompatibilities & suggest their remedies. (6)

Group: D

Q7. i. Classify semisolid with example of each class.

ii. Write a formula of a semisolid and explain the different part of it.

iii. Discuss the method of evaluation of semisolid. 5+5+5=15

Q8. i. Discuss the mechanism and factor influencing the dermal penetration.

ii. Differentiate between cream and gel.

iii. Give example of each one i. gelling agent ii. Preservative iii. Humectant iv. Antioxidant v. perfume vi. Penetration enhancer. 5+5+5=15

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