

22/08/2025

Total marks: 75

Duration: 3 Hours

- N.B.: 1. All questions are compulsory.  
2. Figures to the right indicate full marks.

- Q. 1. Multiple Choice Questions (Answer all of the following) 20**
- 1 The B. Pharm course was first started in India in 1937 at..... 1
    - a) Madras Medical College
    - b) Banaras Hindu University
    - c) Punjab University
    - d) Bombay University
  - 2 ..... is known as the father of pharmacy education in India. 1
    - a) Prof. Mahadeva Lal Schroff
    - b) P. C. Ray
    - c) Col. R. N. Chopra
    - d) Dr. B.N. Ghosh
  - 3 Grittiness in topical dosage form is related to ..... 1
    - a) Particle size
    - b) Polymorphism
    - c) Solubility
    - d) Surface area
  - 4 Which of the following dosage forms delivers the API to the GI tract? 1
    - a) Rectal suppository
    - b) Nasal sprays
    - c) Vaginal pessaries
    - d) Eye drops
  - 5 Which part of the prescription contains names and quantities of the prescribed ingredients? 1
    - a) Superscription
    - b) Subscription
    - c) Inscription
    - d) Signa
  - 6 Fried's rule for calculating the approximate child's dose is given as 1
    - a) Dose of child = Age (in months) x 150 / Adult dose
    - b) Dose of child = Age (in months) x 20 / Adult dose
    - c) Dose of child = Age (in months) x Adult dose / 150
    - d) Dose of child = Age (in months) x Adult dose / 20
  - 7 1 pound = ..... ounces 1
    - a) 24 ounces
    - b) 12 ounces
    - c) 60 ounces
    - d) 20 ounces

- 8 Crystalline substances that liberate water of crystallisation during trituration are called ..... 1
- Effervescent powder
  - Efflorescent powder
  - Hygroscopic powder
  - Deliquescent powder
- 9 The use of alcohol as a solvent in liquids for internal use should be limited to ..... 1
- Below 5%
  - Below 10%
  - Below 15%
  - Below 20%
- 10 ..... are sweet, viscous liquid dosage forms of medicaments meant for cough relief 1
- Linctus
  - Lozenges
  - Inhalations
  - Tablets
- 11 In suspension rate of settling is ..... to viscosity 1
- Equal
  - Directly proportional
  - Inversely proportional
  - Not related
- 12 Emulsions containing fixed oil have oil, water and gum in a ratio of ..... 1
- 4:2:1
  - 2:2:1
  - 2:4:2
  - 3:2:1
- 13 Cocoa butter should exist in ..... 1
- $\alpha$
  - $\beta$
  - $\gamma$
  - $\mu$
- 14 Vaginal suppositories are called as ..... 1
- Cones
  - Bougies
  - Pessaries
  - None of the above
- 15 Camphor and Menthol, when triturated together, undergo liquification. This is a type of ..... incompatibility. 1
- Physical
  - Chemical
  - Both a and b
  - Therapeutic

- 16 Incompatibility occurs due to the mixing of ..... 1  
 a) Homogenous substances  
 b) Agonist substances  
 c) Antagonistic substances  
 d) Compatible substances
- 17 Identify the type of base generally used for preparing vanishing cream 1  
 a) Absorption bases  
 b) Water removable bases  
 c) Hydrocarbon bases  
 d) Oily bases
- 18 Hydrocarbon ointment bases and PEG bases are prepared by ..... 1  
 a) Levigation  
 b) Mixing  
 c) Fusion  
 d) Congealing
- 19 Drugs with molecular weight ..... daltons can permeate rapidly through skin 1  
 a) > 400  
 b) < 400  
 c) > 300  
 d) > 500
- 20 Ointments prepared by anhydrous lanolin are referred to as ..... ointments 1  
 a) Oleaginous  
 b) Emulsifying  
 c) Absorption  
 d) Water soluble

**Q. II. Answer any TWO of the following questions. 20**  
 a) Classify Powders. Explain in detail powders for external use. 10  
 b) Explain in detail the monophasic liquid dosage forms meant for internal use. 10  
 c) Explain the mechanism of dermal penetration of drugs. Discuss in detail various tests used to evaluate semisolid dosage forms. 10

**Q. III. Answer any SEVEN of the following questions. 35**  
 a) What is the rationale for the development of dosage forms? 5  
 b) 25 mg of a drug can be given to an adult. What will be the dose of the drug for: a) 9-month-old child 5  
     b) A 16-year-old girl.  
 c) In what proportions may a manufacturing pharmacist mix 20%, 15%, 5% and 3% zinc oxide ointments to produce a 10% ointment? 5  
 d) Explain eutectic mixtures. 5  
 e) Differentiate between gargles and mouthwashes. 5  
 f) What are the various methods of preparing emulsions? Explain any one in detail. 5  
 g) What are various types of suppository bases? Give the advantages and disadvantages of the cocoa butter suppository base. 5  
 h) Explain chemical incompatibilities with suitable examples. 5  
 i) Write a short-note on creams as a dosage form. 5

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