

( 3Hours )

( Total Marks: 70 )

Please check whether you have the right question paper.

- N.B.:**
- 1) All questions are compulsory.
  - 2) Figure to the right indicate full marks.
  - 3) Draw neat labelled diagram wherever applicable.
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1.
    - a) Justify: Drug has to be dispensed in suitable dosage form. 2
    - b) Define absorption and Excretion. 2
    - c) Calculate quantity of dextrose required to prepare 250 ml of 5% dextrose solution. 1
    - d) What is importance of Rheology? 1
    - e) Elaborate on Linctus and Elixirs. OR 4  
Give a note on Artificial syrup.
    - f) Explain Oral Rehydrating Solution. 2
    - g) Give pharmaceutical applications of complexes. 2
    - h) Explain Hixson- Crowell law. 1
  
  2.
    - a) Discuss advantages and Limitations of Rectal route of administration. 3
    - b) Write a note on Homeopathy system of medicine. 2
    - c) Give importance of Partition coefficient in preformulation studies of liquid orals. 2
    - d) What is a primary package? Elaborate on containers for packaging of liquid dosage forms. 3
    - e) Enlist different methods of analysis of Complexes. 1
  
  3.
    - a) Explain GMP with respect to Buildings. 2
    - b) Discuss in brief Pseudoplastic flow of liquids. 2
    - c) Give a note on Turbine Mixers. 2
    - d) List the derived properties of powder and explain determination of any 2 properties. OR 4  
Explain determination of particle size by Sieve analysis.
    - e) State Fick's first law of Diffusion. 1
  
  4.
    - a) Define terms (any three): Elixir, Liniments, Dusting powder, Ointment. 3
    - b) From the following formula calculate quantity of each ingredient required to make 750 g of ointment. 2
      - i) Zinc oxide 0.4 % W/W
      - ii) Calamine 0.2 % W/W
    - c) Discuss buffers used in formulation of monophasic liquid dosage forms. 2
    - d) Explain particle size separation by Cyclone separator. 2
    - e) Explain intrinsic dissolution rate. 2

- 5. a) Discuss historical background of pharmacy profession in India. 2
  - b) Explain measurement of flow of liquids using Ostwald viscometer. 2
  - c) Discuss principle and working of any one Filtration equipment. 3
  - d) Give an account of size reduction mills based on principle of impact. 4
  
  - 6. a) What is Pharmacopoeia? Give an account of British Pharmacopoeia. 3
  - b) Explain in brief factors affecting bioavailability. 2
  - c) Describe Quality control tests for monophasic liquid dosage form. 4
- OR
- Outline the steps in large scale manufacturing of monophasic liquid dosage form.
- d) Give different designs of blenders for powder mixing. 2