

QP Code : 21785

(3 Hours)

[Total Marks : 70

- N. B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.
(3) Draw neat labelled diagrams wherever applicable.

1. (a) Explain concept of 'drug' and 'dosage form'. 2
(b) Explain the fate of drug after absorption. 2
(c) How much quantity of alcohol is required to prepare 200 ml of 30% v/v alcohol? 1
(d) Define 'viscosity' and 'fluidity'. 1
(e) What are syrups? Enlist various methods used for preparation of syrup. Explain any one method in detail. 4
- OR
- (e) Explain solutions prepared by chemical reaction with the example of chlorinated surgical soda solution. 4
(f) Explain dry syrup in detail. 2
(g) Enlist the types of complexes. 2
(h) Explain the term 'Intrinsic Dissolution'. 1
2. (a) Give reasons for the following : 3
(i) Drugs having first pass metabolism can be given rectally.
(ii) Parenteral route is used in case of emergency.
(b) Write a note on Ayurveda. 2
(c) Explain role of complexation in solubilization. 2
(d) What is secondary packing? Explain advantages and limitations of plastic as packing material. 3
(e) Enlist methods used for analysis of complexes. 1
3. (a) Give GMP requirements for manufacturing area. 2
(b) Write a note on dilatant fluids. 2
(c) Describe in detail working of turbine mixer. 2
(d) Give different methods for particle size measurement and explain coulter-counter method in detail. 4
(e) Enlist various methods for measurement of diffusion. 1

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4. (a) Define the following (any **three**) :- 3
(i) Throat paint (ii) Emulsion
(iii) Elixirs (iv) Linctus.
- (b) Calculate the quantities required to prepare 400 ml solution containing 2
Neomycin sulphate 0.1% w/v
Phenyl mercuric nitrate 0.002% w/v
- (c) Discuss selection of vehicle and organoleptic additives used in liquid 2
oral products.
- (d) Name various techniques for size separation and explain elutriation 2
method in detail.
- (e) Give Noyes-whitney equation and explain the terms. 2
5. (a) Write a note on historical background of the profession of pharmacy 2
in India in brief.
- (b) Explain technique used for the measurement of flow of Newtonian 2
fluids.
- (c) Give various medias of filtration. Explain membrane filter in detail. 3
- (d) Enlist different methods for size reduction. Explain the construction 4
and principle of operation of ball mill or hammer mill.
6. (a) Write a note on development of United States Pharmacopoeia. 2
(b) Explain the term 'bioavailability'. 2
(c) Give quality control tests for liquid oral dosage form. 4
- OR**
- (c) Discuss the packaging materials used for liquid oral dosage forms. 4
(d) Write a note on powder mixing. 3