

Time : 3 Hours

Marks : 80

- N B :**
- 1. All questions are compulsory.**
  - 2. Figures to the right indicate full marks**
  - 3. Draw neat labeled diagram whenever necessary.**

- 1 (a) What is the need of dosage form? 2
- (b) Comment on ancillary packs. 2
- (c) Differentiate between gargles and mouthwashes. 2
- (d) Define- Partition coefficient, Polymorph 2
- (e) Give applications of mixing process 2
- (f) Define Shelf life. Give reason for checking liquid state stability of a pharmaceutical product. 4
- (g) Discuss natural nonabsorbable suture 2
- (h) Write in brief on hydrolyzed gelatin-based products 4
- 2 (a) What are different mixing mechanisms? Explain turbine mixers. 4
- (b) Give an account of a size reduction mill which works on principle of impact. 4
- OR**
- Explain Cyclone Separator equipment for size separation.
- (c) Discuss white cell concentrate 4
- 3 (a) Give brief overview of global status of Indian Pharmaceutical Industry 2
- (b) Enlist the factors affecting filtration. 4
- OR**
- Comment on nasal drops and ear drops
- (c) Discuss large scale manufacturing of ORS powders 4
- (d) Classify sutures and ligatures 2

- 4 (a) Mention the different editions of Indian Pharmacopoeia. 2  
(b) Write a note on plastic as a packaging material 4  
(c) Discuss packaging and labelling of dusting powders 4  
(d) Explain fractionation of plasma 2
- 5 (a) Discuss the techniques of solubility enhancement. 4  
(b) Describe working of plate and frame filter press 2  
(c) Enlist and explain any two principal mechanisms in solid- solid mixing. 2  
(d) Comment on sterilization of catgut 4
- OR**
- Explain fractionation of plasma
- 6 (a) Write a note on alternative systems of medicine with respect to Homeopathy. 2
- OR**
- Write a note on Syrup IP
- (b) Define dosage forms. Classify various dosage forms with examples. 4  
(c) Explain size separation by sieving. 2  
(d) Elaborate on manufacture of dextran 4
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