

- N.B. :** (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.
(3) **All** questions carry **equal** marks.
(4) Draw **diagrams** wherever **necessary**.

1. (a) Discuss base for eye ointments. 3
(b) Write on 'packaging' and 'labelling' of eye drops. 4
 2. With the help of activity/process flow chart, explain in brief, manufacturing of injectable solution containing thermolabile drug. Label the flow chart with quality of air required for each activity. 7
 3. (a) Discuss need of disinfection of lens and formulation considerations for lens care products. 4
(b) Discuss 'Clarity and Particulate testing' for injectable solutions. 3
 4. Discuss manufacturing and sterilisation of Catgut. 7
 5. Write short notes on :- 7
 - (a) HEPA filters and laminar air flow
 - (b) Principle of freeze drying.
 6. (a) Give a brief account of official insulin injections. 3
(b) List methods of preparation of water for injection and discuss storage of water for injection. 4
 7. (a) State source of dextran. Write a note on official dextran formulation. 4
(b) Write a note on whole human blood. 3
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