



- Notes :
1. All questions carry equal marks.
  2. Illustrate your answers wherever necessary with the help of neat sketches.
  3. Que. 1 is compulsory & solve **any four** from following.

1. Solve **any four** from followings. 16
  - a) Differentiate between primary and secondary packaging.
  - b) Give significance of pilot plant study.
  - c) State the safety measure in pharma Industries.
  - d) Write about propellant.
  - e) Draw neat label diagrams of different containers and explain.
  - f) Give concept of optimization.
2. a) Explain pilot plant scale up for ointment. 8  
b) Write in brief organization and personnel requirement for GMP. 8
3. Describe evaluation of pharmaceutical Aerosol. 16
4. a) Explain Hydrolytic resistance test for glass containers. 8  
b) Write in brief closures used in pharmaceutical packaging. 8
5. Write a short note on **any two**. 16
  - a) Optimization parameter.
  - b) Blister packaging & strip packaging.
  - c) Regulatory objective of cGMP.
6. Explain Formulation aspect of Pellets. 16
7. Write a short note on **any two**. 16
  - a) Hazards due to mechanical equipment & its safety measurement.
  - b) Production and process of cGMP.
  - c) Cold fill process.

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