

(2 Hours)

[Total Marks: 40]

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

- Q1. a. State what is meant by – primary packaging and secondary packaging. Give two examples of each 1M  
 b. State any two defects observed in glass containers. 1M  
 c. Explain the issues related to biocompatibility of plastics 2M  
 d. Enlist various types of aerosol valves. 1M  
 e. Mention/State basic components of Blister Packs. 1M  
 f. Enlist types of labels 1M  
 g. Give one example of child resistant cap. 1M  
 h. State any two Q.C. tests for paper and paper board. 2M
- Q2. a. Discuss the different types of glass w.r.t. chemical composition. 3M  
 b. Discuss sterilization of plastic containers. 3M
- OR**
- b. Elaborate on sterilization of rubber closures. 3M
- Q3. a. Explain in detail fabrication processes for plastics. 3M  
 b. Describe in detail printing processes of labels 3M
- Q4. a. Elaborate on cans and collapsible tubes for pharmaceuticals. 3M  
 b. Write a note on Packaging and the ICH guidelines 3M
- OR**
- b) Elaborate on photostability testing 3M
- Q5. a. Elaborate on coatings and laminates 3M  
 b. Describe Strip packaging process w.r.t. materials used and machinery. 3M
- OR**
- b) Elaborate on shrink wrapping and stretch wrapping processes in packaging. 3M
- Q6. a. Give the functions of a package. 2M  
 b. Elaborate on ancillary packaging materials. 2M  
 c. Write on elastomeric closures for parenteral products. 2M