

[Time: 3 Hours]

[ Marks:70]

Please check whether you have got the right question paper.

- N.B:**
1. All questions are **compulsory**.
  2. Draw neat labeled diagrams wherever necessary.

- Q.1**
- a) Discuss the use of lactose as a tablet diluent. 2
  - b) List the attributes of an ideal film coating material. 2
  - c) What are the various methods of sealing hard gelatin capsule shells? 2
  - d) Give the various types of propellants used in aerosol systems. 2
  - e) Write in brief on buccal tablets. 2
  - f) Illustrate layout for a tablet section. 2
  - g) How is spray pattern testing of aerosols carried out? 2
  - h) Enlist the materials used for packaging of capsules. 1
- Q.2**
- a) Describe the evaluation tests to assess the mechanical strength of tablets. 4
  - b) Write a short note on strip packaging of solid oral dosage forms. 4
  - c) Explain the formulation of solution type aerosol systems. 3
- Q.3**
- a) Explain the process of sugar coating of tablets. 4
  - b) Describe the extraction of gelatin from bones with the help of a flow chart. 3
  - c) Discuss the valve and actuator assembly used in aerosol packaging. 4
- Q.4**
- a) Write a note on 'physics of tablet compression'. 4
  - b) Describe the large scale manufacture of soft gelatin capsules using rotary die process. 4
  - c) Write on 'manufacturing of aerosols'. 3
- Q.5**
- a) Elaborate on 'bulk characterization' as preformulation study on tablets. 4
  - b) Explain the 'immersion sword' type of coating system with a neat diagram. 3
  - c) Discuss the problems in capsule filling and suggest suitable remedies for the same. 4
- Q.6**
- a) Explain any one equipment for large-scale wet granulation process. 4
  - b) Describe the applications of film coated tablets 4
  - c) Discuss in details, the disintegration test I.P. for gelatin capsules. 3