

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

1. (a) Define tablets. Give the advantages and disadvantages of tablets. 3
 (b) What is the need for coating of tablets? 3
 (c) Describe the various defects in Hard Gelatin Capsule shells. 3
 (d) What are two phase and three phase aerosol systems? 3
 (e) What are orodispersible tablets? How do they differ from soluble tablets? 3
2. (a) Enlist official quality control tests for tablets and differentiate between 'content of active ingredient' and 'uniformity of content' tests. 4
 (b) Explain blister packaging. 4
 (c) Describe the formulation of dispersion type of product concentrate of aerosols. 3
3. (a) What are the defects observed in sugar coating of tablets? Suggest remedies for the same. 4
 (b) Discuss the different types of gelatin used in capsules. 2
 (c) Enlist the materials used for construction of aerosol containers. Describe any two in detail. 5
4. (a) With the help of a diagram describe the working of a rotary tablet press. 4
 (b) Write a note on fill formulation for soft gelatin capsules. 4
 (c) List the quality control tests on aerosols. Describe any two. 3
5. (a) What is the effect of polymorphism and crystal habit on tableting behaviour? 2
 (b) Describe in detail the process variables and efficiency parameters for perforated pan coating. 3
 (c) Describe the steps involved in hard gelatin capsule filling machine based on the principle of direct filling. 6
6. (a) Write a note on various granulation techniques and describe rapid mixer granulator. 5
 (b) Describe development and optimization of film coating of tablets. 4
 (c) Draw a layout for a typical capsule manufacturing facility. 2