

1. (a) Explain the properties and selection of antioxidants and hydrocolloids in pharmaceutical preparations. 8  
(b) Write a note on organoleptic agents. 6
- OR**
- (c) Describe advantages and disadvantages of hard and soft gelatin capsules. 4  
(d) Describe manufacture and quality control tests for soft gelatin capsule. 10
2. (a) What are suspensions? Explain different types of additives used in the preparation of suspensions. 7  
(b) Discuss in brief the formulation of suspension. How will you evaluate the suspensions? 7
- OR**
- (c) What are emulsions? Discuss in brief about the formulation of emulsions. 8  
(d) What are the different types of identification tests for emulsion? 4  
(e) What are multiple emulsion? 2
3. (a) Explain in detail quality control tests for the uncoated tablets with the specifications stated in pharmacopeia? 7  
(b) Describe various problems encountered during tablet compression. 7
- OR**
- (c) What do you mean by tablet coating? Write about types and rationale of different coating processes. 7  
(d) Describe in detail sugar coating process. 7
4. (a) Explain environmental conditions required for the preparation of parenteral preparations. 7  
(b) Describe in brief the various tests which are required to be done for the evaluation of parenteral products. 7
- OR**
- (c) Explain formulations and manufacture of ophthalmic ointments. 8  
(d) Explain quality control of eye ointments. 6
5. Write in detail quality control tests of aerosols and how are the stability studies of aerosol formulations carried out. 14
- OR**
- (a) Explain various packaging materials used in primary and secondary packaging. 4  
(b) Explain different types of packaging materials used in parenteral preparation. 10

\*\*\*\*