

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B: 1. All questions are compulsory.
2. Figures to the right indicate full marks.

- Q.1 a) Define surface tension and comment on kinetic stability of dispersed systems. **03**
 b) Enlist quality evaluation tests for emulsions. **02**
 c) What are penetration enhancers and give two examples. **02**
 d) Write a note on Ointment bases. **03**
 e) Give the desirable features of suppositories. **02**
 f) Define Aerosols and give advantages of Aerosols. **03**
 g) Write a note on containers for Aerosol systems. **03**
 h) Classify cosmetics with suitable examples. **02**
- Q.2 a) Give an account of excipients and additives used in Suspensions. **04**
OR
 Give the steps involved in large scale manufacturing of suspensions and elaborate on any one equipment. **04**
 b) Discuss in detail quality evaluation of semisolids. **04**
 c) Explain in detail manufacturing of Aerosols. **04**
- Q.3 a) Elaborate on quality control of suspensions. **04**
OR
 Discuss in detail stress testing of emulsions. **04**
 b) Explain in detail methods to evaluate skin penetration. **03**
 c) Write on advantages and disadvantages of Cocoa butter as suppository base. **03**
 d) Justify use of antioxidants in cosmetics and give suitable examples. **02**
- Q.4 a) Write a note on DLVO theory. **03**
 b) Elaborate on formulation additives in Emulsions. **04**
 c) Discuss the role of preservatives in semisolids. **02**
 d) Write a note on Sensorial evaluation of cosmetics. **03**
- Q.5 a) Classify Emulsifiers in detail giving suitable examples. **03**
 b) Elaborate on rheological aspects of semisolids. **03**
 c) What are the different Aerosol formulation systems? Explain any one in detail. **03**
OR
 Discuss valves and actuators used in aerosols.
 d) Write a note on BIS specifications for cosmetics. **03**
- Q.6 a) Distinguish between flocculated and deflocculated systems. **03**
 b) Explain in detail quality control tests of suppositories. **04**
 c) Write a note on Dry Powder Inhalers. **03**
 d) Give two examples of Colours and Perfumes used in cosmetics **02**
OR
 Enlist stability testing parameters of cosmetics **02**