

Day : Thursday
Date : 02/05/2019

Time : 10.00 A.M. TO 01.00 P.M.
Max. Marks : 60

S-2019-4396

N. B.:

- 1) **Q. No. 1 and 5 are COMPULSORY.** Attempt any **TWO** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-I

- Q.1** Answer the following: (Any **FIVE**) (10)
- a) Explain the different components of layout designs.
 - b) Define the term wettability.
 - c) Write importance of GMP in relation to documentation.
 - d) What is role of buffers in liquid dosage form? Give examples.
 - e) Which factors determine the dose accuracy of suspension?
 - f) What is mechanism of suspending agents?
- Q.2** a) Discuss importance of physical characteristics study of drug in preformulation for formulation development. (07)
- b) A suspension of a drug with slight solubility in aqueous phase having pKa of 8 has failed to comply sedimentation requirement after one year of storage. What are the possible reasons and remedies to solve this problem? (03)
- Q.3** a) Explain formation of an emulsion, various compounding methods and its stability aspects. (07)
- b) Suggest suitable antioxidants each for oral liquid having acidic, neutral and alkaline pH. (03)
- Q.4** Write short note on any **TWO** of the following: (10)
- a) Formulation of suspension
 - b) Solid –state stability
 - c) Emulsifying agents

SECTION-II

- Q.5** Answer the following: (Any **FIVE**) (10)
- a) Define and classify gels.
 - b) What are quality characteristics of eye brow pencil?
 - c) Mention ideal properties of drug that govern skin permeation.
 - d) Enlist various materials used in deodorants
 - e) Why creams are preferred over ointments?
 - f) What are ideal properties for lipstick?
- Q.6** a) Explain the concept of percutaneous absorption and various factors affecting it. (07)
- b) Write about permanent hair colorants. (03)
- Q.7** a) Discuss different types of shampoos. (07)
- b) Explain brushless shaving preparation. (03)
- Q.8** Write short note on any **TWO** of the following: (10)
- a) Moisturizers
 - b) Anti- Sunburn products
 - c) Eye shadow