

SUBJECT: PHARMACEUTICAL TECHNOLOGY - I

Day : Saturday  
Date : 17/11/2018

W-2018-4087

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

**N. B.:**

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

**SECTION-I**

- Q.1** Answer the following: (Any **FIVE**) (10)
- a) Give the flow chart for solid (tablet) manufacturing process.
  - b) Explain the factors influencing absorption of weakly acidic or basic drugs.
  - c) Define Quality assurance and Quality control.
  - d) What do you mean by diffusible and in diffusible suspension?
  - e) Write reasons for phase inversion of emulsion.
  - f) Write approaches used to improve palatability of unpleasant drug in elixir formulation.
- Q.2** a) What are emulsions? Discuss methods to identify types of emulsions and various signs of instability of emulsions. (07)  
b) Suggest with reason a suitable buffer for suspension containing bentonite as a structured vehicle (03)
- Q.3** a) Discuss importance of drug-excipient compatibility study and flow property of a drug substance in formulation development. (07)  
b) Discuss sedimentation properties of suspension having Zeta potential value (03)  
a)  $\pm 10$  mV      b)  $\pm 28$  mV      and      c)  $\pm 50$  mV
- Q.4** Write short note on any **TWO** of the following: (10)
- a) Biopharmaceutical Classification System
  - b) Suspending agents
  - c) Methods for preparation of emulsion

**SECTION-II**

- Q.5** Answer the following: (Any **FIVE**) (10)
- a) Define and classify dermatological formulations.
  - b) What are different steps in manufacturing of lipsticks?
  - c) What are requirements of hair dyes?
  - d) Describe significance of hydrophilic-lipophilic nature of drug in transdermal permeation.
  - e) What are ideal characteristics for anti-sunburn product?
  - f) Enlist various pathways of skin penetration of drug.
- Q.6** a) Discuss the various factors affecting the selection of semisolid base. (07)  
b) Explain various film formers used in nail lacquers. (03)
- Q.7** a) Discuss in detail wet shaving preparations. (07)  
b) Explain liquid lipsticks. (03)
- Q.8** Write short note on any **TWO** of the following: (10)
- a) Anti-acne products
  - b) Depilatories
  - c) Evaluation of semisolids