

Day : Thursday  
Date : 02/05/2019

Time : 10.00 A.M. TO 01.00 P.M.  
Max. Marks : 80

S-2019-4444

**N.B.:**

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in the **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

**SECTION – I**

- Q.1** A) Answer **ANY FIVE** of the following: [10]  
i) Mention properties and applications of hard, soft and liquid paraffin.  
ii) What are type A and type B gelatins?  
iii) Why creams are preferred over ointments?  
iv) What are various sizes of hard gelatin capsules?  
v) Define pastes and classify them according to the base used.  
vi) Draw a flow chart of commercial process of conversion of collagen to gelatin.
- Q.2** a) Discuss about formulation of hard gelatin capsule. [08]  
b) Enumerate the functions of penetration enhancers present in a semisolid formulation with suitable examples. [07]
- Q.3** a) Discuss about industrial filling of hard gelatin capsules. [08]  
b) What are absorption bases? Explain the characteristics and the composition of absorption base. [07]
- Q.4** Write short notes on **ANY THREE** of the following: [15]  
a) Methods for preparation of ointments.  
b) Manufacturing process of soft gelatin capsules.  
c) Concept of percutaneous absorption.  
d) Quality control parameters for capsules

**SECTION – II**

- Q.5** A) Answer **ANY FIVE** of the following: [10]  
i) Enlist various commonly used diluents in tablets.  
ii) Mention different components of aerosols.  
iii) What do you mean by porosity of granules?  
iv) Give the flow chart for wet granulation process.  
v) What is angle of repose? Mention its significance.  
vi) What are advantages of directly compressible additives?
- Q.6** a) Discuss in detail the sugar coating process for tablet. [08]  
b) Discuss IPQC tests for granules and tablets. [07]
- Q.7** a) Discuss in detail compression of tablet. [08]  
b) Discuss application and testing of metered dose inhalers. [07]
- Q.8** Write short notes on **ANY THREE** of the following: [15]  
a) Dispersible tablets.  
b) Fluidized bed granulation.  
c) Propellants used in aerosols.  
d) Pharmaceutical granules.