

SUBJECT: PHARMACEUTICAL ANALYSIS-III

Day: Thursday
Date: 15/11/2018

W-2018-4086

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

N.B:

- 1) **Q. No. 1 and Q. No. 5** are **COMPULSORY**. Out of remaining solve **ANY TWO** questions each from Section-I and Section-II.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answer to the both section should be written in **SEPARATE** answer book.
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SECTION-I

- Q.1** Attempt **ANY FIVE** of the following: (10)
- a) Give the types of papers used in Paper chromatography.
 - b) What do you mean by Chromatography and Partition coefficient?
 - c) What information you get from the Retardation factor value?
 - d) What are the advantages of Chromatography over other techniques?
 - e) Give the principle of Paper chromatography.
 - f) How to separate amino acids by paper chromatography?
- Q.2** a) Describe in detail various development techniques in Paper chromatography. (07)
b) Give the various methods of column packing in Column chromatography. (03)
- Q.3** a) What do you understand by column efficiency and how it is expressed? (07)
b) Give classification of chromatography based on mode of separation. (03)
- Q.4** Write short notes on **ANY TWO** of the following: (10)
- a) Aids of Visualization in Paper chromatography
 - b) Adsorbents used in Column chromatography
 - c) Applications of Paper Chromatography

SECTION-II

- Q.5** Attempt **ANY FIVE** of the following: (10)
- a) Enlist the carrier gases used in Gas chromatography.
 - b) How to separate cations by using Ion exchange chromatography.
 - c) What do you mean by derivatization in Gas chromatography?
 - d) Explain the term HETP with suitable example.
 - e) Give the different adsorbents used in Gel permeation chromatography.
 - f) Give the procedure for the regeneration of resins.
- Q.6** a) Enlist and discuss the detectors used in Gas chromatography. (07)
b) Give the assay procedure for the determination of Atropine sulphate. (03)
- Q.7** a) Discuss in detail the types of resins used in Ion exchange chromatography. (07)
b) Give the advantages and limitation of Ion exchange chromatography. (03)
- Q.8** Write short notes on **ANY TWO** of the following: (10)
- a) Columns used in Gas chromatography
 - b) Applications of Gel permeation chromatography
 - c) Flow meter and flow regulator used in Gas chromatography