

Total No. of Questions : 6]

SEAT No. :

P1458

[5049]-602

[Total No. of Pages : 2

T. Y. B. Pharmacy

PHARMACEUTICAL ANALYSIS - IV

(2013 Pattern) (Semester - VI)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two Sections should be written in separate answer books.*
- 3) *Figures to the right indicate full marks.*

SECTION - I

Q1) What is chromatography? Explain the rate and plate theory. Write the applications of column chromatography. **[10]**

OR

Explain the factors influencing HPTLC Separation. Discuss the instrumentation and applications of HPTLC system.

Q2) Attempt any five of the following: **[15]**

- a) Write principle of paper chromatography.
- b) Discuss different types of DSC techniques.
- c) Discuss various chromatographic performance parameters.
- d) Give the classification of planar chromatography.
- e) Discuss the column packing techniques.
- f) Write the methods for TLC plate preparation.
- g) Compare between TLC and HPTLC.

Q3) Write a note on any two of the following: **[10]**

- a) Adsorbents used in TLC.
- b) Instrumentation of electrophoresis.
- c) Two dimensional TLC.
- d) Electrophoresis.

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SECTION - II

Q4) Elaborate the process of Equipment Qualification. **[10]**

OR

Explain pharmaceutical applications of Radiochemical methods.

Q5) Attempt any five of the following: **[15]**

- a) Explain the term Installation Qualification with suitable examples.
- b) How is LOD calculated as per ICH guidelines?
- c) State system suitability parameters with the limits.
- d) Write principle of Thermogravimetry.
- e) What are types of crucibles in TGA?
- f) Explain the effect of geometry material of sample holder on TGA results.
- g) How can moisture content in sample be determined using DTA?

Q6) Write a note on any two of the following: **[10]**

- a) Intermediate Precision.
- b) Linearity and Range.
- c) Neutron Sources.
- d) Polymorphism.

