

B. Pharm.
(SEM IV) THEORY EXAMINATION 2017-18
PHARMACEUTICAL ANALYSIS-II

Time: 3 Hours**Total Marks: 100**

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20
- a. Define titration
 - b. Discuss interference due to water in nonaqueous titrations.
 - c. What is the effect of dilution in case of conductance measurement?
 - d. Explain two-dimensional paper chromatography.
 - e. What is the use of guard column in case of RP-HPLC?
 - f. Name any two Karl-Fischer reagents.
 - g. What is the difference between normal phase chromatography and reverse phase chromatography?
 - h. Define the term levelling effect.
 - i. Discuss demasking agents.
 - j. Write down the Nernst equation.

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30
- a. Explain nonaqueous titration of weak acid with weak bases. What are the advantages of nonaqueous titration?
 - b. Explain the types of complexometric titrations. Discuss about masking and demasking agents.
 - c. Derive Nernst equation giving effect of concentration of electrolyte on potential of electrode.
 - d. What is the theory and principle of flash chromatography? Discuss its pharmaceutical applications.
 - e. Write short note on radioimmunoassay.

SECTION C

3. Attempt any *one* part of the following: 10 x 1 = 10
- a. Enlist the names of drugs which are analyzed by nonaqueous titration. Discuss the pharmaceutical importance of nonaqueous titration.
 - b. What is the principle of complexometric titrations? Discuss about various indicators which is used in complexometric titrations.
4. Attempt any *one* part of the following: 10 x 1 = 10
- a. Explain the basic principle and instrumentation of conductometry.
 - b. Discuss potentiometric titration. How would titrate solution of weak base and strong acid?
5. Attempt any *one* part of the following: 10 x 1 = 10
- a. Explain the basic principle and theory of TLC. Discuss about the pharmaceutical application of TLC.
 - b. What is the basic principle of HPLC? Discuss about various types of detectors used in HPLC?
6. Attempt any *one* part of the following: 10 x 1 = 10
- a. What do you mean by diazotization titrations? Why low temperature is mandatory for diazotization titrations?
 - b. Discuss about preparation and standardization of Karl-Fischer reagent
7. Attempt any *one* part of the following: 10 x 1 = 10
- a. What is the basis of nitrogen estimation by Kjeldahl's method?
 - b. Discuss theory and principle of polarographic analysis. What are the advantages of polarographic method?