

**UKA TARSADIA UNIVERSITY**

Maliba Pharmacy College

M. Pharm. Pharmaceutical Analysis 1<sup>st</sup> Semester Internal Examination December 2013**040060102 Pharmaceutical Analysis-I**

Time: 10:30 a.m. To 1:30 p.m.

Max. Marks: 70

Date: 06/12/2013

**Instructions:**

- Attempt all questions.
- Make suitable assumptions wherever necessary.
- Figures to the right indicate full marks.
- Draw diagrams/figures wherever necessary.

**Q.1] Define the following: (any six)****[6 x 1 = 6]**

- 1) Hot stage microscopy
- 2) Sieve diameter
- 3) Volume surface diameter
- 4) Calibration
- 5) Diffraction
- 6) Prospective validation
- 7) Atomization

**Q.2 Answer the following: (any eight)****[8 x 3 = 24]**

- 1) Write the use of following reagents in pharmaceutical analysis: Para dimethyl amino benzaldehyde, Ninhydrin and 2,3,5 triphenyl tetrazolium salt
- 2) Explain the assay principle for cinchona alkaloids.
- 3) Write the identification tests for digitoxin and digoxin.
- 4) Explain the working of any one crystalline membrane electrode with suitable diagram
- 5) Explain the principle of nitrite titration.
- 6) Explain principle for quantitative estimation of aldehyde and ketone.
- 7) Explain the concept of equivalent sphere and state its significance.
- 8) Write the general identification tests for alkaloids.
- 9) What is ISE? Write its classification.

**Q.3] Answer in detail: (any eight)****[8 x 5 = 40]**

- 1) Explain the procedure for calibration of UV-Visible Spectrophotometer.
- 2) What is Bragg's law? Write applications of XRD.
- 3) Describe the analytical methods for estimation of sodium and potassium.
- 4) Explain the principle and procedure involved in quantitative estimation of esters.
- 5) Discuss the role of titrimetric methods in analysis of drugs and dosage forms with suitable examples.
- 6) Describe the principle and procedure involved in the use of N<sub>1</sub>-naphthyl ethylene diamine in pharmaceutical analysis.
- 7) Describe the methods for determination of halogens.
- 8) Describe the principle and procedure involved in analysis of pharmaceutical dosage forms containing sulphonamides.
- 9) Discuss the applications of instrumental methods for drug metabolism and pharmacokinetics study with suitable examples.