

(2)

- (a) Explain principle, methodology and applications of base digestion. 10
- (b) Explain the following : 5×2
- (i) F-tests
- (ii) Significant figures

Unit-II

2. (a) What is Extraction ? Discuss the methods of extraction. 10
- (b) Discuss technique and applications of HPLC. 5
- (c) Discuss the classification of chromatography. 5

OR

- (a) Discuss technique and application of Thin-layer chromatography. 10
- (b) Explain efficiency and selectivity of extraction. 5
- (c) Define the term counter current extraction and retardation factor. 5

Unit-III

3. (a) Discuss the principle, instrumentation and application of DTA. 10

(3)

- (b) Explain Automated methods. 5
(c) Discuss the principle and instrumentation of FIA. 5

OR

- (a) Discuss the principle, methodology and application of Flow Injection Analysis. 10
(b) Discuss the principle, instrumentation of DSC method. 5
(c) Discuss the factors affecting DTA. 5

Unit-IV

4. (a) Discuss the principle, instrumentation and application of conductometry. 10
(b) Explain the following : 5×2
(i) Dropping mercury electrode
(ii) Polarized electrode

OR

- (a) Discuss the principle, instrumentation and application of pH potentiometry. 10
(b) Explain the following : 5×2
(i) Cyclic voltammetry
(ii) Micro electrode