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Total No. of Pages : 02

Total No. of Questions : 13

B.Pharm (2017 &amp; Onwards) (Sem.-1)

**PHARMACEUTICAL ANALYSIS-I**

Subject Code : BP-102T

M.Code : 74645

Time : 3 Hrs.

Max. Marks : 75

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

**SECTION-A****1. Explain briefly :**

- (a) Define accuracy and precision.
- (b) What is a significant figure?
- (c) What is a mixed indicator? Give an example.
- (d) Define formal potential.
- (e) What is common ion effect?
- (f) What is co-precipitation? How it can be minimized?
- (g) What is the pH of 0.01 M solution of HCl?
- (h) Why an aqueous solution of sodium acetate is alkaline?
- (i) Write balanced chemical equation for reaction between  $\text{Ce}(\text{SO}_4)_2$  and Oxalic acid.
- (j) Differentiate between iodimetry and iodometry.



**SECTION-B**

2. Explain in detail the theories of indicator action. How do you select an appropriate indicator for a titration?
3. Write about principle, balanced chemical equations and general calculations for standardization of  $\text{Na}_2\text{S}_2\text{O}_3$ . Give application of  $\text{Na}_2\text{S}_2\text{O}_3$  in estimation of  $\text{CuSO}_4$ .
4. (a) Differentiate between co-precipitation and post-precipitation. How these can be minimized?  
(b) Explain the principle involved, chemical reactions, procedure and general calculations for gravimetric estimation of barium as  $\text{BaSO}_4$ .

**SECTION-C**

5. Define a buffer solution. How it works? Derive the equation to calculate its pH.
6. Explain Mohr's method in detail.
7. Write an account on various internal indicators used in redox titrations.
8. How do you prepare a 0.1M solution of Ceric ammonium sulfate? Explain its standardization giving balanced chemical equations and general calculation.
9. Explain the concept of masking and demasking with examples and one application.
10. Give a detailed account on assay of ephedrine hydrochloride.
11. What is the principle of conductometric titrations? Explain their applications.
12. Give the construction and working of calomel electrode with the help of neat diagram.
13. Define error. Discuss various types of errors and methods to minimize these.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**