



J-014-1041003 Seat No. _____

M. P. M. (Sem. I) (CBCS) Examination

June / July - 2019

BP - 102 : Pharmaceutical Analysis - I

Faculty Code : 014
Subject Code : 1041003

Time : Hours] [Total Marks : 75

Instructions : (1) Figure to the right indicates marks.

(2) Draw neat and clean diagrams as required.

1 Answer the following questions : **20**

- (1) Comment on: Complexometric titration is performed in acidic condition.
 - (2) Enlist different method of expressing units of concentration.
 - (3) What is a metal indicator? Give examples of it.
 - (4) Write limitations of mohr's method in precipitation titration.
 - (5) Discuss indicators used in fajan's method of precipitation titration.
 - (6) What is difference between redox potential and standard reduction potential?
 - (7) What is difference between titration and standardization?
 - (8) What are spectator ions? Explain with examples.
 - (9) Give examples of indicators used in non-aqueous titration.
 - (10) Enlist different types of solvents used in non-aqueous titration with examples.

2 Answer the following questions : (Any Two) 20

- (1) Classify acid base titration. Discuss theory involved in titration of strong acid vs weak base.
- (2) Discuss chemical method of end point determination in precipitation titration.
- (3) Discuss basic principle of polarography. Write Ilkovic equation and discuss construction and working of dropping mercury electrode.

3 Answer the following questions : (Any Seven) 35

- (1) Discuss levelling & differentiating effect in non aqueous titration.
 - (2) Write name of methods to write oxidation-reduction reaction. Discuss ion electron balance method.
 - (3) Define error. Discuss different methods of minimizing errors.
 - (4) Enlist different techniques in gravimetry analysis. Discuss post precipitation and coprecipitation.
 - (5) What is difference between potential and conductance? Give examples of reference and indicator electrodes. Discuss construction and working of reference electrode.
 - (6) What is difference between indicator and self indicator? Give examples of self indicator. Discuss KMnO_4 as a self indicator in redox titration.
 - (7) Discuss requirements and properties of primary standard compound.
 - (8) Discuss reactions and properties of EDTA.
 - (9) What is pharmaceutical analysis? Discuss its scope and application.
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