



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.