**J-014-003205** Seat No. _____

# Master of Pharmacy Management (MPM)
# (Sem. II) (CBCS) Examination
## June / July - 2019
## Pharmaceutical Analysis - II

**Faculty Code : 014**
**Subject Code : 003205**

Time : **3** Hours] [Total Marks : **80**

**Instructions :**

(1) Answer and tie up both sections separately.

(2) Figure to the right indicates marks.

(3) Answer the **three** (**3**) questions from each section.

(4) Question one (**1**) and question five (**5**) are compulsory.

(5) Draw neat and clean diagrams as required.

## SECTION – 1

**1** Answer any **seven** out of ten : **14**

1) Explain the advantages and disadvantages of DME (Dropping Mercury Electrode).

2) Give principle of amperometric titration.

3) Explain construction of calomel electrode with diagram.

4) What is $R_f$ value. Enlist different factor affecting $R_f$ value.

5) Give advantages and limitation of instrumental analytical methods.

6) Give the methods of rejuvenation of glass electrode.

7) Explain different factor affecting liquid-liquid extraction.

8) Define any two : 1) Retention time, 2) Diffusion current, 3) Void volume.

9) Explain in brief : Components of chromatography.

10) Differentiate between normal phase and reverse phase chromatography.

2 Answer the following question(s) : **13**

1) What is chromatography? Enlist different ways to classify chromatography. Write detail classification of chromatography according to mode of separation. **7**

2) Write a note on : Elution in column chromatography. **6**

3 Answer the following question(s) : **13**

1) Write a note on oxygen combustion flask method. **7**

2) Define extraction. Discuss in detail about continuous extraction process. **6**

4 Answer the following question(s) : **13**

1) What is the basic principle of conductometer? Explain in detail about electrode & its function in conductometer. **7**

2) Discuss instrumentation of polarimeter in detail. **6**

## SECTION – 2

5 Answer any **two** out of **three** questions : **14**

1) Enlist different types of development techniques in paper chromatography & write in detail about two dimensional development technique. **7**

2) Enlist different techniques for application of adsorbent on the plate & write in detail about any two techniques. **7**

3) What DSC curve measure? Explain in details : Factor affecting DSC Curve. **7**

6 Answer the following question(s) : **13**

1) Explain different visualizing techniques in chromatography. **7**

2) Discuss different factors affecting column efficiency. Write in brief : monitoring of the column. **6**

7 Answer the following question(s) : **13**

1) Define potentiometry. Explain different types of titration in potentiometry. **7**

2) Discuss instrumentation and applications of thermogravimetric analysis. **6**

8 Answer the following question(s) : **13**

1) What is difference between polarimetry and polarography? Write in detail about principle and instrument set up for polarography? **7**

2) Write a note on amperometry or biamperometry titration. **6**