MCQ-014-003606 Seat No. _____

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

May / June - 2018

Pharmaceutical Analysis - IV

(External)

Faculty Code : 014
Subject Code : 003606

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

Instruction :
(1) Answer and tie up both the sections separately.
(2) Figure to the right indicates marks.
(3) Answer the three (03) questions from each section.
(4) Question one (01) and question five (05) are compulsory.
(5) Draw neat and clean diagrams as required.

SECTION – I

1 Answer the following : (any **seven**) **14**

(a) What is the principle of HPTLC ?
(b) Which type of Stationary phase and Mobile phase are used in chiral chromatography ?
(c) What is Retardation Factor? Enlist the factors responsible for variation in Rf.
(d) What is the importance of time programming in GC ?
(e) What is the advantage of hyphenated techniques ?
(f) Mention the plate theory used for HPLC.
(g) What are the applications of Flash chromatography ?
(h) Comment: RP-HPLC is method of choice for separation of polar compound.
(i) What are the limitations of HPTLC ?
(j) Explain the van Demeter equation.

2 Answer the following :

(a) Write a informative note on Affinity chromatography and gel permeation chromatography. **7**
(b) Write a note on Radio immuno assay (RIA). **6**

3 Answer the following :

(a) Write a informative note on hyphenated techniques LC-NMR and CE-MS. **7**

(b) Mention the difference between. **6**

(a) GSC and GLC

(b) UHPLC and HPLC

4 Answer the following :

(a) Give the instrumentation, application and advantages of HPTLC. **7**

(b) Mention the different types of devices used in measurement of radio activity. **6**

SECTION – II

5 Answer the following : (any **two**) **14**

(a) Write a note on Isotope dilution analysis in radiochemical method. Morden use of radioactive isotope.

(b) Write a note on detectors used in Gas chromatography.

(c) Explain in detail about :

(a) ELISA

(b) LC-MS

6 Answer the following :

(a) Draw flow diagram of HPLC. Enlist the different component of it. Write a note on stationary phase used in it. **7**

(b) Write a note on Supercritical fluid chromatography. **6**

7 Answer the following :

(a) Difference between general and special detectors used in HPLC. Write about the detail category of each one. **7**

(b) Write a short note on Liquid scintillation system. **6**

8 Answer the following :

(a) Draw the Flow diagram of GC. What is the principle of it ? Enlist the different component of GC. Write a informative note on column used in GC. **7**

(b) Explain HETP, peak asymmetry factor, retention volume, resolution. **6**