THIRD YEAR PHARM. D (SUPPLEMENTARY) : SUMMER - 2018

SUBJECT : PHARMACEUTICAL ANALYSIS

Day : **Tuesday** | **S-2018-4062** | Time : **10.00 AM to 01.00 PM**
Date : **03/07/2018** | Max. Marks : **70**

N. B. :

1) **Q.No.1** and **Q. No.5** are **COMPULSORY**. Out of the remaining questions attempt **Any TWO** from each section.
2) Answers to both the sections should be written in **SEPARATE** answer book.
3) Figures to the right indicate **FULL** marks.

SECTION - I

Q.1 **a)** Solve **Any FOUR** of the following : **(08)**

i) Define- Distribution co-efficient, Resolution.

ii) Write about types of ion exchange resins.

iii) Write about amperometric electrodes.

iv) Write factors affecting mobility of ions in conductance measurement.

v) Write about Saccharimeter.

b) Write about Quality management and audits. **(03)**

Q.2 Enlist all the detectors used in GC. Explain in detail any two. Write about applications of GC. **(12)**

Q.3 **a)** Classify chromatographic methods. Explain different modes of paper chromatography. **(07)**

b) Write theories of chromatography and explain types of papers used in paper chromatography. **(05)**

Q.4 Write short notes on **Any THREE** of the following : **(12)**

a) Compare between HPLC and HPTLC.

b) Amperometric titrations

c) Applications of Ion exchange chromatography

d) Polarographic apparatus.

P.T.O.

SECTION - II

Q.5 **a)** Solve **Any FOUR** of the following : **(08)**

i) State Bragg's Law.

ii) Write types of burners used in flame.

iii) State applications of flurimetry.

iv) Classify thermal methods of analysis.

v) Write about ideal thermogram.

b) Write difference between ESR and NMR. **(03)**

Q.6 Write theory involved in ESR spectroscopy. Explain instrumentation of ESR spectrophotometer with a neat and labeled diagram. **(12)**

Q.7 **a)** Discuss general components in mass spectrophotometer with functioning of each part in detail. **(07)**

b) Write theory involved in NMR spectroscopy. **(05)**

Q.8 Write short notes on **Any THREE** of the following : **(12)**

a) Compare between DSC and DTA

b) Transitions in UV

c) Detectors used in IR

d) Instrumentation of flame photometer

* * * * *