

Paper Id: **150725**

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B. PHARM
(SEM VII) THEORY EXAMINATION 2019-20
PHARMACEUTICAL ANALYSIS –III
(Pharmaceutical Analysis and Quality Assurance)

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

a.	Define chromophores with suitable examples.
b.	Discuss the different light sources used in UV-visible spectroscopy.
c.	What do you mean by molecular ion peak?
d.	Differentiate shielding and deshielding effect.
e.	Explain concept of TQM.
f.	Name different validation parameters.
g.	Explain the term quenching.

SECTION B**2. Attempt any three of the following:****7 x 3 = 21**

a.	Explain different types of electronic transitions in UV Visible spectroscopy.
b.	What is the importance of ionization technique in mass spectroscopy? Explain any two ionization techniques.
c.	Discuss different modes of molecular vibrations in IR spectroscopy.
d.	Write a note on scanning electron microscopy.
e.	Define quality audit and types of quality audit.

SECTION C**3. Attempt any one part of the following:****7 x 1 = 7**

(a)	Give instrumentation of double beam spectrophotometer with suitable diagram.
(b)	Explain Beer-Lambert law and its limitation.

4. Attempt any one part of the following:**7 x 1 = 7**

(a)	Write a note on FTIR.
(b)	Give application of IR spectroscopy in pharmaceutical analysis.

5. Attempt any one part of the following:**7 x 1 = 7**

(a)	Describe chemical shift and factors affecting chemical shift.
(b)	Describe with suitable diagram instrumentation of NMR.

6. Attempt any one part of the following:**7 x 1 = 7**

(a)	Give principle of mass spectrometry and also describe McLafferty rearrangement.
(b)	Write a note on gel electrophoresis.

7. Attempt any one part of the following:**7 x 1 = 7**

(a)	Describe principle, instrumentation and application of flame photometry.
(b)	Write a note on batch manufacturing and master formula record.