

B.Pharm 6th Semester Exam., 2018**PHARMACEUTICAL ANALYSIS—III**

Time : 3 hours

Full Marks : 70

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

SECTION—A1. Fill in the blanks (any seven) : $2 \times 7 = 14$

- (a) Nernst glower is the source for IR.
- (b) The longest peak in mass spectroscopy is base peak.
- (c) In UV spectroscopy, the cuvette is made up of quartz.
- (d) Schedule M is pharmaceuticals.
- (e) Validation is defined as the process of establishing documented evidence that the data generated from the testing process are accurate and reliable.
- (f) Quenching is the process of deactivating an excited molecule.

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(g) The range of chemical shift in proton NMR is _____.

(h) ELISA is _____.

(i) The name of any two mass analyzers are _____ and _____.

(j) The IR range is _____.

T = 20 e¹⁰

SECTION—B

Answer any four questions

2. (a) What is Lambert-Beer law? Derive Lambert-Beer law. 7

(b) Write the instrumentation of UV-visible spectrophotometer. 7

3. (a) What is quenching? Explain various factors affecting quenching. 7

(b) What are fluorescence and phosphorescence? Explain. 7

4. Give the principle of IR spectroscopy and write in detail about sampling techniques in IR spectroscopy. 14

5. (a) What is chemical shift? Write various factors affecting chemical shift. 7

(b) Write a note on C13 NMR. 7

6. Give the instrumentation of mass spectroscopy and write a note on fragmentation. 14

7. What is emission spectroscopy? Write a note on the principle and instrumentation of flame photometry. 14

8. What is absorption spectroscopy? Write the principle and instrumentation of AAS. 14

9. Define validation. Write its various types and explain why it is important in pharmaceutical industries. 14

12/12/2014
10/12/2014