

Final Year B.Pharm-Sem-VIII (2011 course): SUMMER-2018

SUBJECT : PHARMACEUTICAL ANALYSIS - VI

Day : Monday
Date : 23-04-2018

Time : 2:00 P.M. TO 5:00 P.M.
Max. Marks : 80

S-2018-3983

N.B.:

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

SECTION - I

- Q.1** Attempt **ANY FIVE** of the following: [10]
- a) What do you mean by Pecisscional frequency?
 - b) Write the basic principle of Atomic absorption spectroscopy.
 - c) Write the limitations of flame photometry.
 - d) Explain double resonance.
 - e) What is $n + 1$ rule in NMR?
 - f) Write the ^1H NMR chemical shift value for COOH, CHO, Acetylene and Cyclopropane.
- Q.2** a) Explain chemical shift. Write the factors affecting chemical shifts. [08]
b) Discuss Spin - Spin Coupling in detail. [07]
- Q.3** Explain the instrumentation of Atomic absorption Spectroscopy and discuss the interferences involved. [15]
- Q.4** Write a note on **ANY THREE** of the following: [15]
- a) Burners in flamephotometry
 - b) Shielding and deshielding
 - c) Differences between Atomic absorption spectroscopy and flame emission spectroscopy
 - d) Integration in NMR

SECTION - II

- Q.5** Attempt **ANY FIVE** of the following: [10]
- a) What is concept of Immunoassay?
 - b) What do you mean by method sensitivity?
 - c) Define Validation.
 - d) Explain the term base peak in MS.
 - e) What is principle of TGA?
 - f) Enlist any four mass analyzers.
- Q.6** Classify mass analyzers, describe principle, working, instrumentation, advantages and applications of TOF mass analyzers. [15]
- Q.7** Classify thermal methods of analysis and describe types, theory, instrumentation and applications of DSC. [15]
- Q.8** Write a note on **ANY THREE** of the following: [15]
- a) Types of ELISA technique
 - b) Sector mass analyzer
 - c) Instrumentation and applications of RIA techniques
 - d) Analytical method stability

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