BACHELOR OF PHARMACY (B. PHARM.) (CBCS - 2015 COURSE)
Final Year B. Pharm. Sem-VIII :SUMMER- 2022
SUBJECT : PHARMACEUTICAL ANALYSIS-VI (T UE)

Day : Thursday
Date : 14-07-2022

S-13728-2022

Time : 02:00 PM-05:00 PM
Max. Marks : 60

N.B.:

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

SECTION-I

Q.1 Answer any **FIVE** questions: **(10)**

a) Write the number of signals, chemical shift values and multiplicities for ethanol.
b) Define chemical equivalence in NMR. Give example.
c) Why TMS is used as standard in NMR.
d) Write the applications of flame photometry
e) What is atomizer? Write the types of atomizers.
f) Write the principle of AAS.

Q.2 Explain the principle of NMR. Discuss chemical shift and factors affecting chemical shifts in NMR. **(10)**

Q.3 Discuss the principle and instrumentation of flame photometry. **(10)**

Q.4 Write short notes on any **TWO** of the following: **(10)**

a) Mechanism of Atomization
b) Spin- spin splitting
c) Applications advantages and disadvantages of AAS

SECTION-II

Q.5 Answer any **FIVE** questions: **(10)**

a) What is analytical method robustness?
b) Define process validation.
c) What you understand from the term LC- MS?
d) Write the Bragg's Law.
e) What are the advantages of Mass spectroscopy technique?
f) Write the principle of DSC.

Q.6 Classify thermal methods of analysis and describe theory, instrumentation and applications of TGA technique. **(10)**

Q.7 Classify mass ionization sources, describe principle, instrumentation, working and advantages of TOF Mass analyzers. **(10)**

Q.8 Write short notes on any **TWO** of the following: **(10)**

a) Theory and applications of XRD
b) DTA Instrumentation
c) Mc Lafferty rearrangement in MS

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