

29/03/22

Total No. of printed pages = 2

BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara
Guwahati - 781017

MPH 101 T

Roll No. of candidate

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

2022

M.Pharm. 1st Semester (End-Term) Examination

Pharmaceutics

MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

(New Regulation w.e.f. 2017-18)

Full Marks - 75

Time - Three hours

The figures in the margin indicate full marks
for the questions.

- A. Answer *all* : (10 × 2 = 20)
1. Define Spin-Spin coupling.
 2. What do you understand by metastable ions?
 3. What is Coupling constant?
 4. What is Column chromatography?
 5. What is ELISA?
 6. What is chemical shift?
 7. What is the principle of Paper chromatography?
 8. What is electrophoresis?
 9. List out any two applications of X-ray diffraction.
 10. Differentiate between paper and column chromatography.

[Turn over

B. Answer any *seven*.

(7 × 5 = 35)

11. Discuss the various applications of IR spectroscopy.
12. Explain with neat illustration the instrumentation of HPLC.
13. Discuss the solvent effect in UV-visible spectroscopy.
14. Write short notes on: Paper electrophoresis.
15. Discuss the principle and applications of Thin Layer Chromatography.
16. Write a detailed note on RIA (Radio immuno assay).
17. Write a short note on Ion-exchange chromatography.
18. Give a brief outline of principles of FT-NMR and ¹³C-NMR.
19. Briefly explain about Iso electric focusing.

C. Answer any *two*.

(2 × 10 = 20)

20. Describe the principle and instrumentation of UV-Visible spectroscopy.
21. Give a diagram of a common mass spectrometer, describe its various units. Discuss the application of mass spectroscopy.
22. Write an account on: (a) Bioluminescence assays (b) Zone electrophoresis.