

Roll No.

Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (Sem.-8)  
**PHARMACEUTICAL ANALYSIS – III**

Subject Code : BPHM-802

M.Code : 72297

Date of Examination : 05-07-22

Time : 3 Hrs.

Max. Marks : 80

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.

**SECTION-A**

1. Answer briefly :

- a. Define Bragg's Law.
- b. Wagging in IR.
- c. Define Finger print region.
- d. Hysochromic Shift.
- e. Nitrogen rule and its significance.
- f. Hydrogen bonding in IR.
- g. Difference between Heteroannular and Homoannular.
- h. Prism.
- i. Grating monochromators.
- j. Name two UV detectors.
- k. Time of Flight.

- l. What are hysochromic and hypochromic shifts?
- m. What do you mean by molecular Ion peak in Mass spectra?
- n. Deutrium exchange and its application.
- o. Full form of MALDI and its relevance.

### SECTION-B

2. Explain Spin Spin coupling and coupling constant and their significance in NMR.
3. Discuss the various factors affecting fluorecence intensity.
4. Give the principle and working of any two Fluorometric detectors.
5. Short note on powder method of diffraction and its significance.
6. Define and derive Beer lambert law.

### SECTION-C

7. Give the principle, working and applications of IR spectroscopy.
8. Explain different types of ionization methods in mass spectrophotometry.
9. Give a detailed account of Raman spectroscopy.
10. Discuss in detail the instrumentation of Flame photometry. Comment on its qualitative and quantitative applications.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**