Bachelor of Pharmacy (B.Pharm) Sixth Semester

BP603 - Pharmaceutical Analysis-III

P. Pages : 1 **GUG/W/18/1178**

Time : Three Hours * 0 8 9 1 * Max. Marks : 80

Notes : 1. Q. No. **1** is compulsory and Solve **any four** from remaining.
2. All questions carry equal marks.

1. Solve **any four** from remaining. **16**

a) Explain Excitation and Emission spectra in Fluorescence Spectroscopy.

b) Describe the determination of Quinine Sulphate by Fluorescence spectroscopy.

c) Give the Applications of flame photometry.

d) Elaborate the Absorption Law and Limitation in UV-spectroscopy.

e) Write in details the factor influencing vibrational frequency in IR.

2. a) What is the principle of flame photometry? Discuss in brief about its Instrumentation. **8**

b) Give the principle of Fluorescence spectroscopy? What are the different factors that affect Fluorescence? **8**

3. a) What is the theory of Colorimetry? Discuss in brief its Instrumentation and Applications. **8**

b) Write a note on Turbidimetry. **8**

4. a) Discuss instrumentation of double beam UV spectrophotometer in detail. **8**

b) Write principle of UV spectroscopy. What is bathochromic and hypsochromic shift? **8**

5. a) Explain Instrumentation of IR Spectrophotometer in detail. **10**

b) Give Sampling techniques and sample holders in IR spectroscopy. **6**

6. What is the principle of polarography? Write in details about Normal and differential polarography. Explain the current – potential relationship, polarization and choices of Electrodes? Give a brief note on the Application of polarography in pharmaceuticals. **16**

7. a) Give Ilkovic equation and Elaborate half wave potential, diffusion current and Residual current. **8**

b) Write about the fundamental modes of vibrations in diatomic molecule and Heat detectors of IR. Explain the Application of IR spectroscopy. **8**

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