

# **2012 scheme**

**QP CODE: 412006**

**Reg. No: .....**

## **Final Year B.Pharm Degree Supplementary Examinations December 2021 Pharmaceutical Analysis – II**

**Time: 3 Hours**

**Total Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers*
- *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw Diagrams wherever necessary.*

**Essays**

**(3x10=30)**

1. Describe the construction and working principle of standard hydrogen electrode. Write the scope of potentiometric titration's in analysis of compounds.
2. Define absorptivity and molar extinction coefficient. With examples describe methods for quantitative analysis of compounds by ultra-violet spectrophotometry.
3. Outline separation principles by HPLC. Explain importance and applications of bonded phase supports

**Short notes**

**(14x5=70)**

4. Write conductometric titration curve for estimation of a mixture of strong acid and weak acid by titration with strong base explaining the mode of determining their end points.
5. Explain chemical ionization techniques in mass spectrometry.
6. Describe the differences between the two analytical validation parameters - Precision and Accuracy.
7. Explain the working principle and applications of electrophoresis.
8. State Braggs Law. Write its significance in analysis of crystalline substances.
9. Explain the working principle of turbidimetry. Add a note on applications of Turbidimetry.
10. With examples, explain the principle of separation and detection by GLC.
11. Explain Bathochromic shift and Hypochromic shift.
12. Explain the importance of using Photomultiplier Tubes (PMT) in fluorimeters. How is Thiamine analysed by fluorimetry.
13. Explain the working principle of prism and grating monochromators used in Spectrophotometers.
14. Explain diffusion current. Write Ilkovic equation and explain the terms involved in it.
15. Describe the salient features of validation and its types.
16. With appropriate examples, explain shielding and de-shielding effects in NMR spectroscopy.
17. How is atomic absorption spectrometer used in analysis of specific ions. Write any two of its applications

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