

# **2012 scheme**

**QP CODE: 412006**

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

## **Final Year B.Pharm Degree Supplementary Examinations December 2022 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. Explain the rate and plate theory in detail with suitable formula and diagram. (2+8)
2. Explain the construction and working of sources of light, Monochromators and any one detectors of UV Visible spectrophotometer. (2+4+4)
3. a) List the interferences in flame photometry. Explain the oxide formation interferences with an example  
b) Explain the theory of UV/Visible spectroscopy with energy level diagram. (5+5)

**Short notes**

**(14x5=70)**

4. Explain the glass electrode.
5. Explain the conductometric titration for the mixture of strong acid and weak acid Vs strong base
6. List the applications of thermal analysis in Pharmacy.
7. Write and explain the Ilkovic equation. Write its use.
8. Explain the amperometric titration curve when chloride is reacted with silver ions.
9. Explain the factors affecting electrophoresis in brief.
10. Differentiate Nephelometry and Turbidometry.
11. Define the term validation and explain the analytical method of validation.
12. Define the term GLP. Discuss terms involved in GLP in brief.
13. Explain the IR spectrum of acetyl salicylic acid and acetaminophen
14. List merits and demerits of Radio Immuno Assay.
15. Which class of below compounds is most likely to give a fragment ion at  $m/z = M-18$  and why.
16. Name the indicator and reference electrode for the potentiometric titrations for the following
  - i) Non aqueous titration of sodium benzoate Vs perchloric acid
  - ii) Iron (II) Vs Ce (IV)
  - iii) Sodium chloride Vs Silver nitrate
  - iv) Estimation of drug containing free primary aromatic amino group
  - v) Metal ion Vs disodium edetate
17. Ibuprofen, paracetamol and chlorzoxazone potassium are separated in a LC column with retention times of 2.92, 3.25 and 12.11 minutes and base widths of 0.1, 0.2 and 0.4 minutes respectively. An unretained peak occurs at 2.27 minutes. Calculate the resolution between Ibuprofen and paracetamol, paracetamol and chlorzoxazone potassium, Ibuprofen and chlorzoxazone potassium.

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