QP CODE: 302326 **Reg. No: ……..**

Third Year Pharm D Degree Supplementary Examinations February 2017

Pharmaceutical Analysis

Time: 3 Hours **Total Marks: 70**

- Answer all Questions.
- Draw Diagrams wherever necessary.

Essays **(3x10=30)**

1. With a neat diagram explain the construction and working of gas chromatography instruments covering the carrier gases, stationary phase, types of columns and an over view of detectors.
2. Explain the principles of conductometric titration and different types of conductometric titration curves with examples
3. Explain the working of various detectors used in UV-visible spectrophotometers. Explain the terms with example; electronic transition, chromophore, auxochrome, bathochromic shift, hypsochromic shift, hyperchromic effect and hypochromic effect.

Short notes **(8x5=40)**

4. Overview of ICH and ICH guidelines
5. Visualization techniques used in TLC and paper chromatography
6. Classification of chromatographic techniques, Rf value and retention time
7. Dropping mercury electrode including advantages and disadvantages
8. Construction and working of flame photometer
9. Detectors used in IR spectrophotometer
10. Theory, principles and application of differential scanning calorimetry
11. Karl Fischer titration and detection of end point in Karl Fischer titration.

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