[LA 814] **APRIL 2012** **Sub. Code: 3814**

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

THIRD YEAR

PAPER II – PHARMACEUTICAL ANALYSIS

Q.P. Code: 383814

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions in the same orde

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Explain the theory of IR absorption? Draw and label IR spectrometer giving details on its components. How is IR spectroscopy applied for qualitative and quantitative analysis of pharmaceuticals.	17	40 min.	20
2. Write the theoretical aspects, indicator and reference electrodes used, and measurement of pH, types of titrations and end point detection and application of potentiometry.	17	40 min.	20

II. Write notes on :

1. What are the fundamental laws governing UV absorption and why do molecules deviate from laws?	4	10 min.	6
2. How does a good laboratory practice performed in an industry?	4	10 min.	6
3. Elaborate on theory of fluorescence. How does a pharmaceutical compound estimated by fluorescence concept?	4	10 min.	6
4. What are amperometric titrations? Add note on advantages and pharmaceutical applications of amperometric titrations.	4	10 min.	6
5. Give note on monochromators and detectors used in UV spectrophotometers.	4	10 min.	6
6. Draw and label a double beam spectrofluorimeter giving its advantage.	4	10 min.	6
7. How does the Derivatization and temperature programming are used in gas chromatographic analysis.	4	10 min.	6
8. Describe the polarographic principle and factors affecting polarographic measurements.	4	10 min.	6
9. What are the differences between atomic absorption and flame emission spectroscopy?	4	10 min.	6
10. Give the principle and application of NMR and ESR spectroscopy.	4	10 min.	6

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