

[KZ 814]

OCTOBER 2011

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 order****I. Elaborate on :****Pages Time Marks
(Max.) (Max.) (Max.)**

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| 1. Explain the theory of polarography involving Ilkovic equation, dropping mercury electrode, current voltage curve, various current produced and its application in pharmacy. | 17 | 40 min. | 20 |
| 2. Describe the theory of UV absorption spectroscopy and laws governing, deviation of laws.
Draw the diagram of a double beam UV spectrometer and its application in single / multi component analysis. | 17 | 40 min. | 20 |

II. Write notes on :

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| 1. Write on theory, carrier gases and stationary phases used in gas chromatography. | 4 | 10 min. | 6 |
| 2. Explicate the types of fluorescence quenching with examples and give the application of fluorimetry to pharmaceuticals. | 4 | 10 min. | 6 |
| 3. What are the reference and indicator electrodes used in potentiometric titrations. Explain construction, working and advantages of one electrode from each of the type. | 4 | 10 min. | 6 |
| 4. What are the basic components of a HPTLC instrument?
Explain the advantages and application of HPTLC in pharmacy. | 4 | 10 min. | 6 |
| 5. What are the vibrations occur in a molecule on IR absorption?
Give the elements of interpretation of an IR spectrum of a molecule. | 4 | 10 min. | 6 |
| 6. Explain the concepts of statistical quality control. | 4 | 10 min. | 6 |
| 7. What is conductometric titration? Explain them with suitable examples. | 4 | 10 min. | 6 |
| 8. Write on construction, working principle and advantages of a flame ionization detector used in gas chromatography. | 4 | 10 min. | 6 |
| 9. Explain the ion exchange mechanism and write on various factors affecting ion exchange process. | 4 | 10 min. | 6 |
| 10. Briefly write on the procedure of regulatory control. | 4 | 10 min. | 6 |
