(LK 4270)   **FEBRUARY 2017**   Sub. Code: 4270

B.PHARM. EXAMINATION
FOURTH YEAR
PAPER IV – MODERN METHODS OF PHARMACEUTICAL ANALYSIS

Q.P. Code: 564270

Time: Three hours   **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. a) Explain the process of fluorescence with diagram.
    b) Discuss various reasons for the reduction in fluorescence intensity of a molecule.

2. a) Write on Bragg's Law.
    b) Elaborately write on different reference electrodes used in potentiometry.

II. Write notes on: **(8 x 5 = 40)**

1. With a neat labelled diagram explain double beam UV spectrophotometer.
2. Explain different amperometric titration curves with examples.
3. Give an account on current voltage curve in polorography.
4. Write the principle and applications of nuclear magnetic resonance.
5. Enumerate basic concepts of TQM.
6. Write principle and factors affecting Nephlo-turbidimetry.
7. Write the advantages and differences of HPTLC compared to TLC.
8. What are the modes of vibrations occur in IR spectroscopy.

III. Short answers on: **(10 x 2 = 20)**

1. What is a molecular ion peak?
2. Name the instrument components of atomic absorption spectroscopy.
3. Write two applications of flame emission spectroscopy.
4. What is the Gradient elution?
5. Write two grades of paper used in paper chromatography.
6. What is gel filtration?
7. Write types of electrophoresis.
8. Give two basic concepts of GLP.
9. Define group frequency region.
10. What is cell constant?

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