

PARUL UNIVERSITY
FACULTY OF PHARMACY
B.Pharm., Winter 2017-18 Examination

Semester: 4**Subject Code: 08101252****Subject Name: Pharmaceutical Analysis- II****Date: 16/12/2017****Time: 02:00 pm to 05:00 pm****Total Marks: 75****Instructions:**

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay type Questions. (Any 2 out of 3) (10 marks each) (20)

1. Enlist different validation parameters. Explain each parameter in detail.
2.
 1. Explain Isotope Dilution Method
 2. Explain liquid Scintillation Method
3. What is Nernst equation? Describe the various reference electrodes used in the potentiometry.

Q.2 Short Essay type Questions. (Any 7 out of 9) (5 marks each) (35)

1. Write a note on TGA.
2. Calculate the specific rotation and molecular rotation of 15 gms of 100 ml solution showing a rotation of + 9.80 in polarimeter tube of 10cm. the molecular weight of the substance is 180.
3. Explain Kohlrausch law. Explain factors affecting electrolytic conductance.
4. Discuss the working and construction of Combined glass membrane electrode. How it is calibrated?
5. Discuss the advantages and limitations of instrumental methods of analysis. Classify the different instrumental methods.
6. Discuss the advantages and limitations of amperometric titrations.
7. Write a note on factors affecting conductometric measurements.
8. What is a polarographic technique? Classify the technique and draw a labelled diagram of DME.
9. Explain different types of potentiometric titrations.

Q.3 Answer in short. (2 marks each) (20)

1. Discuss the applications of differential thermal analysis.
2. Write comment on following
 - i. DME is not suitable to be used as Anode.
 - ii. Roll of supporting electrolyte in polarography.
3. Distinguish between Diffusion current and residual current.
4. Define the terms Equivalent conductance and Specific conductance.
5. Differentiate solid liquid extraction and liquid liquid extraction.
6. Discuss the applications of Differential Thermal Analysis.
7. Differentiate between Polarizer and analyser.
8. How will you determine pKa value of acetic acid by pH meter?
9. Explain the terms Half wave potential and signal to noise ratio.
10. Role of supporting electrolyte in polarography.