Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Ph SEM-IV Examination-Nov/Dec.-2011

Subject code: 240004 **Date: 28/11/2011**

Subject Name: Pharmaceutical Analysis-II

Time: 02.30 am-05.30 pm **Total marks: 80**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q-1 (a) What is chromatography? Classify & explain the retention mechanism. (6)
(b) Enlist the advantages & limitations of Instrumental analytical methods. (5)
(c) Define the following terms. (5)
(1) Specific Conductance (2) Polarography (3) Validation (4) PH
(5) Diffusion Current

Q-2 (a) Explain Validation parameters in detail. (6)
(b) Enlist the factors affecting conductance & applications of Conductometry. (5)
(c) Draw the instrumental diagram for the following analytical methods. (5)
(1) Polarography (2) Polarimetry (3) Potentiometry (4) Conductometry
(5) Biamperometry

Q-3 (a) Discuss various types of electrodes used in the Potentiometric titrations. (6)
(b) What is DSC? Explain the applications of DSC in detail. (5)
(c) Write a short-note on Paper Chromatography. (5)

Q-4 (a) Explain C-V Curve in detail with suitable example. (6)
(b) Explain Differential Thermal Analysis & discuss its applications. (5)
(c) Write a short-note on Thin Layer Chromatography. (5)

Q-5 (a) What is stripping voltammetry? Explain any two stripping techniques. (6)
(b) What is Std. Reduction Potential & cell potential? Enlist applications of Potentiometry. (5)
(c) Write a short-note on NPP and DPP (5)

Q-6 (a) What is half wave potential? What is its importance? Enlist advantages & Drawbacks of DME. (6)
(b) Discuss different types of polarizers & analyzers used in Polarimetry. (5)
(c) Write a short-note on Biamperometric titrations. (5)

Q-7 (a) 1. Explain in detail the factors affecting diffusion current.
2. Mention the advantages of DPP over NPP. (6)
(b) Explain the theory & principle of Polarimetry. Enlist its applications. (5)
(c) Explain the following terms in brief.(1) Calorimetry (2) Sachharimetry
(3) Supporting electrolyte (4) Kohlrausch law (5) Signal to noise ratio (5)

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