Total No. of Questions : 6] SEAT No. :

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[5245]-404

Second Year B. Pharmacy (Semester - IV)

244 : PHARMACEUTICAL ANALYSIS - II

(2013 Pattern)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Answers to the two sections should be written in separate answer books.***
3) ***Figures to the right indicate full marks.***

SECTION - I

Q1) Write principle of polarography. Discuss in detail dropping mercury electrode. Write in brief about ilkovic equation. **[10]**

OR

Explain in detail different types of conductometric titration curves. Comment on calibration of conductometer.

Q2) Attempt any five of the following. **[15]**

a) Classify different electrodes used in potentiometry.

b) Explain mechanisms of mass transfer in electroanalytical techniques.

c) Define and give formula for specific and equivalent conductance.

d) What is cell constant? Write its importance.

e) Write in brief about end point detection in potentiometry.

f) Explain need of hydration of glass electrode.

g) Write role of supporting electrolyte and maxima suppressors in polarography.

Q3) Write notes on any two of the following. **[10]**

a) Pulse Polarography

b) High frequency titrations

c) Ion selective electrodes

d) Applications of Conductometry

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SECTION - II

Q4) Write principle of refractometry. Discuss in detail about Abbe's Refractometer. **[10]**

OR

a) Write in detail about oxygen combustion flask technique. **[5]**

b) Give an account on Dead Stop end point method. **[5]**

Q5) Attempt any five of the following **[5×3=15]**

a) Write a note on cotton effect

b) Principle of coulometric analysis

c) Advantage and disadvantage of coulometric analysis

d) Explain ORD spectra

e) Discuss about types of pane polarized light

f) Effect of temperature and solvent on optical activity

g) Rotating platinum electrode

Q6) Write a note on (any two) **[2×5=10]**

a) Spectropolarimeter

b) Silver coulometer

c) Application of coulometric analysis

d) Determination of nitrogen by Kjeldahl method