Registration No : | | | | | | | | | | |

Total Number of Pages : 02 **B.Pharm**
15PH503

5th Semester Regular/Back Examination 2018-19
PHARM. ANALYSIS-II
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 100
Q.CODE : E281
Answer Question No.1 which is compulsory and any FIVE from the rest.
The figures in the right hand margin indicate marks.

Part- I

Q1 **Short Answer Type Questions (Answer All-10)** **(2 x 10)**

a) Name two reagents used for washing the precipitate in Gravimetric analysis.
b) Define digestion of precipitate and surface adsorption.
c) Which reference electrode is used in Amperometric titrations?
d) Mention the factors that affect the Diazotization end point.
e) Explain the concept of molar conductivity.
f) Mention the applications of radio-immunoassay.
g) What are the advantages and disadvantages of RIA?
h) Define specific conductance and equivalent conductance.
i) What are charging current and migration current?
j) Write about the electrodes used in potentiometry.

Part- II

Q2 **Focused-Short Answer Type Questions- (Answer Any EIGHT out of TWELVE)** **(6 x 8)**

a) Write a short note on Radio-immuno Assay.
b) Explain the principles involved in electrophoresis.
c) What is the principle involved in the conductometry? Explain molar conductivity.
d) What is the main difference in working principle of nephlometry and turbidimetry? Mention their applications.
e) How would you explain the presence of water in an 'analyte' usually reacts with Karl-Fischer reagent in a two step process?
f) Give the chemical reactions involved in the Karl-Fischer titration.
g) What is the diazotization reaction? How does it help in the assay of drugs? Explain.
h) What are the advantages of diazotization titrimetry? Mention the factors that affect diazotization titrimetry.
i) Explain the theory involved in potentiometry.
j) What are the different types of instruments used in potentiometry? Mention the applications of potentiometry.
k) Write short notes on Biamperometry and Rotating microelectrode.
l) State the principle of Gravimetric analysis based on law of mass action. Define relative super saturation. Mention the mathematical expression.

Part-III

Long Answer Type Questions (Answer Any TWO out of FOUR)

Q3 Explain the principles and procedure involved in Kjeldahl method of protein analysis. **(16)**

Q4 What are the advantages of the DME? Compare the usefulness of the DME as a cathode and as an anode. What are the principle underlying Amperometric titrations? How are Amperometric titrations carried out? **(16)**

Q5 Describe the steps involved in Gravimetric analysis. Write the advantages of this analytical procedure over Thermo-gravimetric analysis. **(12+4)**

Q6 Define co-precipitation. What are the optimum conditions for precipitation? Enlist the various impurities obtained from co-precipitation. How can these be minimized? What are industrial applications of Gravimetric analysis? **(2+3+3+3+5)**