

FACULTY OF SCIENCE
B.Sc. V-Semester (CBCS) Examination, November / December 2019

Subject : Chemistry (Instrumental Methods of Analysis)

Time : 3 Hours

Paper – VI (A) (DSE E-1)

Max. Marks: 60

PART – A (5 x 3 = 15 Marks)

(Short Answer Type)

Note : Answer any five of the following questions.

1. What is continuous extraction? Give one example.
2. What is R_f value? What are the factors influencing R_f value?
3. List any five cation anion resins.
4. What is the basic difference between paper and column chromatography?
5. Define transmittance and absorbance.
6. What is difference between colorimetry and spectrophotometry.
7. What is the principle involved in potentiometry?
8. What is over potential?

PART – B (45 Marks)

(Essay Answer Type)

Note: Answer ALL from the questions.

9. (a) What is the principle involved in solvent extraction? Explain counter current extraction method. (11)
OR
(b) How do you prepare ascending and descending chromatogram in paper chromatography?
10. (a) Explain the packing techniques in column chromatography (wet packing and dry packing) ? (11)
OR
(b) Write Beer Lambert's law and write its limitations.
11. (a) Draw the Block diagram of FT-IR spectrophotometer. (11)
OR
(b) How do you estimate iron in water sample by thio cyanate method? (12)
12. (a) Write short note on :
(i) Normal Hydrogen Electrode
(ii) Quin hydrone Electrode. OR
(b) Write brief note on :
(i) Micro electrodes
(ii) Polarization