EASETRN UNIVERSITY, SRI LANKA

SECOND EXAMINATION IN SCIENCE 2015/2016 (Nov/ Dec 2017)

FIRST SEMESTER

CH 202 ANALYTICAL CHEMISTRY

(Repeat)

Answers all questions **Time: One hour**

1.

(a) Classify and explain the Chromatography based on its separation mechanisms.

(40 Marks)

(b) Briefly describe the Paper Chromatography and explain the different types of Paper Chromatography with suitable diagrams.

(40 Marks)

(c) Compare and contrast the Column Chromatography and Planner Chromatography.

(20 Marks)

2. (a) Briefly explain the principle involved ,in the operation of an Atomic Absorption Spectrometer

(20 Marks)

(b) Briefly describe the Atomic Absorption Spectrometer using a labelled diagram and write the function/s of each basic component of this Spectrometer.

(40 Marks)

(c) (i) Explain the Nernst distribution Law.

(ii) A 50.0 ml of 0.125 mol l^{-1} aqueous solution of X was extracted with 20.0 ml of organic solvent. Distribution coefficient of the solute X between the organic layer and aqueous layer is 10. How many times should it be extracted to reduce the concentration of X in aqueous to 0.005 mol l^{-1}?

(40 Marks)