**SHAH ABDUL LATIF UNIVERSTY KHAIRPUR**

**INSTITUTE OF CHEMISTRY**

**Class:** M.Phil /M.S **Subject:** Inorganic chemistry (Practical)

**Semester:** 1st **Test:**  Final test

**Session:** 2019 **Date:** 12-11-2019

**Maximum Marks** 50  **Time allowed:** 1.5 hr

**Note: Attempt all Questions**

Q. No. 1 a) Prepare 100 mLs of 0.1N solution of H2SO4 when the % Purity of given solution is 96 and density is 1.8.

(b) Determine the amount of KCl for the preparation of 100mls 1000ppm of KCl.

**Q. No. 2** How you will prepare 100mls of 1M solution of CaCl2 and from that solution 500mLs of 0.1N solution of that solution.

**Q. No. 3 Write theory and procedure observation and calculation for given objects**

**i.** Prepare 10ppm solution of KMnO4 and determine its λmax of using spectronic-20 spectrophotometer

**ii.** Prepare 0.01M solution of EDTA and determine the hardness of tape water by using that solution

**iii**. Determine the amount of KMnO4 in given solution by titrating with 0.1N solution of ferrous sulfates.

**Q. No. 4** Define the following Terms

(i) Job,s method (ii) Calibration curve (iii) LOD (iv) Characterization of compound (v) Primary and secondary standards (vi) Standardization (vii) LOQ (viii) Molar absorption (ix) Redox indicators (x) Validation of method(xi) Confidence level (xii) Reference material (xiii) Standard addition method.