University of Salahaddine Subject: Analytical chemistry/practical

College of Agricultural engineering Stage: First

science

 Time: 1 hour

 21 /12/2022 Name:

 Monthly exam Group:

**Q1/ Define of the followings: (only 3) (15 Marks)**

1. Vinegar 2. Solution 3. Qualitative analysis 4. Titration

**Q2/ A/Enumerate type of the followings: (25 Marks)**

1/ Titration

2/ Quantitative analysis

3/ Types of indicator and colors in (acid and base) medium

**B- Draw the titration apparatus and write all chemical compounds in acid- base titration**

 **(15 Marks)**

**Q3/Write names of laboratory equipment’s(apparatus) (20 Marks)**

|  |  |
| --- | --- |
| Glass Stirring Rods | Pyrex® Volumetric Flask |
| Vacuum Desiccators at Rs 9325/number | Laboratory Desiccator | ID:  17850110288 | Dropping Bottle, Glass, Squat Form, 100 mL |
| Glass Graduated Cylinders, Single Metric Scalehttp://tbn0.google.com/images?q=tbn:CiBjOewsvg86OM:http://www.tea.state.tx.us/student.assessment/resources/online/2006/grade8/science/images/20graphicaa.gif | Wash Bottles |
|  | https://upload.wikimedia.org/wikipedia/commons/thumb/9/97/Scheidetrichter_zwei_Phasen_brauner_Hintergrund.png/220px-Scheidetrichter_zwei_Phasen_brauner_Hintergrund.png |
| 1000ml,Vacuum Suction Filtration Device,1 L,Buchner Funnel Apparatus,Heavy  Wall|buchner funnel|filtration vacuumfiltration apparatus - AliExpress | http://tbn0.google.com/images?q=tbn:X2uyS81Y3t__pM:http://www.perfectpartscompany.com/P606.jpg |

Lecturer

Dr. Sirwan Ahmed

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**Q4/**  (K=39 O=16 H=1 p=31) **(25 Marks)**

 A/ Determine the weight required to prepare 0.5 M of KOH in 250 ml distilled water.

B/ prepare 3N of H3PO4 in 500 ml distilled water.

 (Sp.gr= 1.69 %=85)

 Good Luck

 Mrs. Hanan F.khalil

Lecturer

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