HIGHER SECONDARY EXAMINATION - 2018

Subject: Chemistry - Practical

Maximum Score : 40 **Time : 3 Hrs.**

1. Estimate the mass of ---------- in the whole of the given solution. You are provided with a standard solution of ---------- containing ---------- grams/ litre **(Score - 12)**
2. Briefly write the principle and procedure for the above estimation within first five minutes. **(Score - 3)**
3. Analyse the given salt, identify and confirm systematically the anion and cation present in it. **(Score - 13)**
4. Analyse the given organic compound, identify and confirm the functional group present in it. **(Score - 6)**
5. Viva voce **(Score - 2)**
6. Practical record **(Score - 4)**

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EVALUATION OF CHEMISTRY PRACTICALS – DETAILS

1. Practical Record
   a. Basic Laboratory techniques - ½
   b. Physical Chemistry Experiments (two) - ½
   c. Reactions of anion and cation - ½
   d. Salt analysis (6 Salts) - 1
   e. Identification of functional groups (Four) - ½
   f. Volumetric analysis (Four) - 1
2. Viva voce: Informal simple questions to know the awareness on Chemistry practical- 2
3. Qualitative analysis (Score 13)
   a. Systematic Analysis of anion - 1
   b. Identification test for anion - 3
   c. Confirmation test for anion - 2
   d. Systematic Analysis of cation - 1
   e. Identification of group - 2
   f. Identification test for cation - 2
   g. Confirmation test of cation - 2
4. Functional group analysis of organic compound (Score 6)
   a. Identification of functional group (One test) - 3
   b. Confirmation of functional Group (One test) - 3
5. Quantitative analysis (single Titration – Score 12)
   a. Tabulation and recording - 2
   b. Calculation
      i. Normality of standard solution - 1
      ii. Normality of solution to be estimated - 1
      iii. Correct equivalent masses - 1
      iv. Correct calculation of the result with unit - 2
         i. error within 2% (Full score) - 5
         ii. error up to 3% - 4
         iii. error above 3% - 3
6. Principle and procedure for quantitative analysis (Score -3)
   a. For writing the chemical equation - 1
   b. Procedure (Score – 2)

Solution in pipette	½
Solution in burette	½
Indicator used	½
Colour change	½

Note

i. The procedure for qualitative analysis should be obtained in details
ii. The student has to make up the solution for estimation
iii. Normality or molarity may be used as the concentration for qualitative analysis.
iv. Systematic analysis should be followed in salt analysis.
v. At least four different types of question papers may be used.
vi. Certified record should be produced.