

**HIGHER SECONDARY EXAMINATION MARCH-2019**

**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

## Total Score

1. Practical Record
  - a. Basic Laboratory techniques  $\frac{1}{2}$
  - b. Physical Chemistry Experiments (two)  $\frac{1}{2}$
  - c. Reactions of anion and cation  $\frac{1}{2}$
  - d. Salt analysis (4 Salts) 1
  - e. Identification of functional groups (Four)  $\frac{1}{2}$
  - f. Volumetric analysis (Four)(one must be permanganometry) -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  
(Acidimetry/Alkalimetry/Permanganometry) -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	1/2
Solution in burette	1/2
Indicator used	1/2
Colour change	1/2

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.