**Term 2 - 2022**

**FORM 3**

**CHEMISTRY PAPER 3 (233/3)**

**MARKING SCHEME**

**QUESTION 1**

Table

i) Complete table

ii) Decimal place

iii) Principals of averaging

iv) Accuracy – Compare candidates values to school values (s.v)

* At least one value within 0.1 of s.v
* If within 0.2 of s.v

a) i) Average volume of solution A

* Final accuracy

ii) 1 x 60 = 0.24M or 0.24 moles/litre

250

iii) RFM of HCl = 1 + 35.5 = 36.5

Concentration of HCl in g/litre

= ans in a(ii) x 36.5 = ans

1 litre

iv) ans in a(i) x ans in a(ii) = ans

1000

b) i) Mole Ratio = 1 : 1

no of moles of soln Q = ans in a (iv)

ii) ans in b(i) x 1000 = ans

25

iii) ans in b(ii) x 750 = ans or

1000

iv) 1 x 4.2 = ans

ans in b(iii)

v) 16 + 1 = 17

R.A.M of x = ans in b(iv) – 17

2[i]

|  |  |
| --- | --- |
| Observation | inference |
| Solid dissolves to form colourless  solution | Coloured ions absent or  Cu2+,Fe2+,Fe2+absent |

[ii]

|  |  |
| --- | --- |
| Observation | Inference |
| White ppt which dissolves on excess  to form colourless solution | Zn 2+,Pb2+,Al3+present |

[iii]

|  |  |
| --- | --- |
| observation | inference |
| White ppt formed which dissolves in  Excess to form colourless solution | Zn2+ present |

[iv]

|  |  |
| --- | --- |
| observation | Inference |
| No white ppt formed | CO, SO,absent |

[v]

|  |  |
| --- | --- |
|  |  |
| White ppt formed which dissolves on warming  To form colourless solution | Clpresent |

3.[a]

|  |  |
| --- | --- |
| Observation | Inference |
| Burns in yellow sooty smoky flame | Unsaturated organic compound  C=C , -C present |

[b]

|  |  |
| --- | --- |
| observation | inferences |
| Does not dissolve it forms  Layers | Non polar organic Compound |

|  |  |
| --- | --- |
| observation | inferences |
| Purple Potassium Manganate (VII)  colourless | CC , -Cpresent |