

### Model answer of chemistry exam

1	62.93%
2	32.7%
3	(1) · (2)
4	(1) · (4)
5	Acidic- change the color of methyl orange into red
6	Anion of the salt(A)is phosphate- Anion of the salt(B) is iodide
7	(2-butyne) the color is discharged-(pentane) unchanged-(2-hexene) unchanged
8	pentane
9	butane
10	Catalytic hydration-oxidation-neutralization with NaOH-dry distillation
11	Z alkene- Y alkane- X alkyne
12	6-bromo,3-methyl,3-heptene
13	1- FeCl <sub>3</sub> , 2 – Fe(OH) <sub>3</sub> , 3-Fe <sub>2</sub> O <sub>3</sub>
14	Mass of FeCO <sub>3</sub> decreases, mass of Fe <sub>3</sub> O <sub>4</sub> increases
15	Compound X equals Y in magnetic moment and both are colored.
16	A is iron II oxalate, B is iron II sulphate
17	(L) < (Y) < (Z) < (X)
18	(1) substitutional - (2) interstitial (3) intermetallic
19	(B) with respect to (A)
20	H <sub>2</sub> (L) – Cl <sub>2</sub> (Z) – Na (Y) - Cl <sub>2</sub> (X)
21	$2\text{Cr}_{(s)}^{\circ} / 2\text{Cr}_{(aq)}^{3+} // 3\text{Pt}_{(aq)}^{2+} / 3\text{Pt}_{(s)}^{\circ}$
22	Mass of anode decreases, cathode reaction is ( $2\text{Au}^{3+} + 6\text{e}^{-} \rightarrow 2 \text{Au}^{\circ}$ )
23	4.17L
24	(A) is anode, (D) is cathode
25	The rate of forward reaction increases, concentration of chloride ion decreases
26	concentration of reactants and products is always constant
27	Tube A increases, tube B is not affected.
28	$5.01 \times 10^{-11}$
29	$7.96 \times 10^{-3}$
30	The value of [H <sub>3</sub> O <sup>+</sup> ] in potassium acetate solution is lower.