

ELECTROLYSIS OF MOLTEN IONIC COMPOUNDS

MARK SCHEME

Sr. no.	Ionic compound	+ive ions formed	-ive ions formed	Product formed at the +ive electrode	Product formed at the -ive electrode	Half equation for +ive electrode	Half equations for -ive electrode	Marks
1.	NaCl	Na ⁺	Cl ⁻	Chlorine Cl ₂	Sodium Na	2Cl ⁻ → Cl ₂ + 2e ⁻	Na ⁺ + e ⁻ → Na	6
2.	CaBr ₂	Ca ²⁺	Br ⁻	Bromine Br ₂	Calcium Ca	2Br ⁻ → Br ₂ + 2e ⁻	Ca ²⁺ + 2e ⁻ → Ca	6
3.	CuCl ₂	Cu ²⁺	Cl ⁻	Chlorine Cl ₂	Copper Cu	2Cl ⁻ → Cl ₂ + 2e ⁻	Cu ²⁺ + 2e ⁻ → Cu	6
4.	FeCl ₃	Fe ³⁺	Cl ⁻	Chlorine Cl ₂	Iron Fe	2Cl ⁻ → Cl ₂ + 2e ⁻	Fe ³⁺ + 3e ⁻ → Fe	6
5.	NiCl ₂	Ni ²⁺	Cl ⁻	Chlorine Cl ₂	Nickel Ni	2Cl ⁻ → Cl ₂ + 2e ⁻	Ni ²⁺ + 2e ⁻ → Ni	6
6.	Li ₂ S	Li ⁺	S ²⁻	Sulfur S	Lithium Li	S ²⁻ → S + 2e ⁻	Li ⁺ + e ⁻ → Li	6
7.	AgBr	Ag ⁺	Br ⁻	Bromine Br ₂	Silver Ag	2Br ⁻ → Br ₂ + 2e ⁻	Ag ⁺ + e ⁻ → Ag	6

Total marks (42)