

- Balance the following nuclear reactions and name the decay process occurring.

Marks
6

Equation	Name of decay process
${}^{15}_{8}\text{O} \rightarrow {}^{15}_{7}\text{N} + \boxed{{}^0_1e}$	positron emission
${}^{238}_{92}\text{U} \rightarrow {}^{234}_{90}\text{Th} + \boxed{{}^4_2\text{He}}$	α decay
${}^{40}_{19}\text{K} + \boxed{{}^0_{-1}e} \rightarrow {}^{40}_{18}\text{Ar}$	electron capture