Question 5

The table below shows eight elements ***Q*** to ***X*** with consecutive proton number.

Element	***Q***	***R***	***S***	***T***	***U***	***V***	***W***	***X***
Valence electronic configuration	$3s^23p^1$		$3s^23p^3$					$4s^2$

From the table,

a) Write the ground state valence electronic configuration of elements ***R,T,U, V*** and ***W*** and state their most stable oxidation numbers.

Eelemnt	**Ground state valence electronic configuration**	**Most stable oxidation numbers**	**Z_{eff}**
R			
T			
U			
V			
W			

$_{11}N = 1s^2\ 2s^2\ 2p^6\ 3s^1$
Zeff = proton number – inner shell electron
= 11 -10
= +1

b) Choose one

i) Noble gas

ii) Alkaline earth metal

iii) Group 14

iv) Element that form acidic oxide

v) Element that form basic oxide

vi. Element that forms amphoteric oxides

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vii) Biggest size of atom

viii) Smallest size of atom



Size of atom $\frac{1}{\alpha}$ electronegativity

ix) Weakest Electronegativity

x) Strongest electronegativity



size of atom $\frac{1}{\alpha}$ IE_1

xi) Lowest first Ionization energy

xii) Highest first ionization energy

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