

55.	<u>Element</u>	<u>Electron Configuration</u>	<u>Core Notation</u>
(a)	Li	$1s^2 2s^1$	[He] $2s^1$
(b)	F	$1s^2 2s^2 2p^5$	[He] $2s^2 2p^5$
(c)	Mg	$1s^2 2s^2 2p^6 3s^2$	[Ne] $3s^2$
(d)	P	$1s^2 2s^2 2p^6 3s^2 3p^3$	[Ne] $3s^2 3p^3$
(e)	Ca	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$	[Ar] $4s^2$
(f)	Mn	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^5$	[Ar] $4s^2 3d^5$
(g)	Ga	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^1$	[Ar] $4s^2 3d^{10} 4p^1$
(h)	Rb	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^1$	[Kr] $5s^1$

61.	<u>Element</u>	<u>Electron Dot Formula</u>	<u>Element</u>	<u>Electron Dot Formula</u>
(a)	H	H·	(b)	·B·
(c)	N	·N:	(d)	:F:
(e)	Ca	Ca·	(f)	·Si·
(g)	O	·O:	(h)	:Ar:

67.	<u>Ionization Energy</u>	<u>Ionization Energy</u>
(a)	Mg > Ca	(b) S > Se
(c)	Sn > Pb	(d) N > P

(Note: The element with the higher ionization energy is in **bold**.)

73.	<u>Ion</u>	<u>Ionic Charge</u>	<u>Ion</u>	<u>Ionic Charge</u>
(a)	Cs ion	1+	(b)	Ga ion
(c)	O ion	2-	(d)	I ion

75.	<u>Ion</u>	<u>Isoelectronic</u>	<u>Ion</u>	<u>Isoelectronic</u>
(a)	Al ³⁺	Ne	(b)	Ca ²⁺
(c)	S ²⁻	Ar	(d)	N ³⁻

79.	<u>Ion</u>	<u>Electron Configuration – Core Notation</u>
(a)	F ⁻	[He] $2s^2 2p^6$, or [Ne]
(b)	S ²⁻	[Ne] $3s^2 3p^6$, or [Ar]
(c)	N ³⁻	[He] $2s^2 2p^6$, or [Ne]
(d)	I ⁻	[Kr] $5s^2 4d^{10} 5p^6$, or [Xe]