Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 8:30 am A quiz # ____

Name Key (print name) Name _____ (sign name)

Please show all work for full credit.

1. principal quantum number is abbreviated n (a letter) and is correlated with the

period numbers in the periodic table.

magnetic quantum number is abbreviated m_ℓ (a letter symbol)

spin quantum number is abbreviated m_s (a letter symbol) (2 pts each, 8 pts total)

2. For principal quantum number 5 the possible angular momentum quantum number are (5 pts)

$\ell = 0, 1, 2, \ldots (n-1)$ $\ell = 0, 1, 2, 3, 4$

3. For angular momentum quantum number 3 the possible magnetic quantum number are (5 pts)

$m_\ell = -\ell, \ldots 0 \ldots +\ell$, $-3, -2, -1, 0, +1, +2, +3$

4. For the angular momentum quantum number $\ell = 0$ the symbol is (s, p, d, f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element P

$1s^2, 2s^2, 2p^6, 3s^2, 3p^3$

partial Credit

Too much Too little

partial Credit

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 8:30 am B quiz # 2-7

Name Key (print name) Name _____ (sign name)

Please show all work for full credit.

1. principal quantum number is abbreviated n (a letter) and is correlated with the

period numbers in the periodic table.

spin quantum number is abbreviated m_s (a letter symbol) (2 pts each, 8 pts total)

magnetic quantum number is abbreviated m_ℓ (a letter symbol)

2. For principal quantum number 4 the possible angular momentum quantum numbers are (5 pts)

$\ell = 0, 1, 2, \ldots (n-1)$ 0, 1, 2, 3 partial credit

3. For angular momentum quantum number 2 the possible magnetic quantum numbers are (5 pts)

$m_\ell = -\ell, \ldots 0 \ldots +\ell$ $-2, -1, 0, +1, +2$

partial credit

4. For the angular momentum quantum number $\ell = 1$ the symbol is (s, p, d, f) (circle one) ~~(2 pts)~~

extra credit: 3 pts

Give the electron configuration for the element S

$1s^2, 2s^2, 2p^6, 3s^2, 3p^4$

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 9:55 am A quiz # _____

Name Key (print name) Name _____ (sign name)

Please show all work for full credit.

1. Principal quantum numbers are also called the (shell) subshell, orbital) (circle one)

angular momentum quantum number is abbreviated ℓ is also called the subshell.

magnetic quantum number is abbreviated m_ℓ (a letter symbol)

spin quantum number is abbreviated m_s (a letter symbol) (2 pts each, 8 pts total)

2. For principal quantum number 3 the possible angular momentum quantum number are (5 pts)

$\ell = 0, 1, 2, \ldots (n-1)$ 0, 1, 2 partial credit

3. For angular momentum quantum number 1 the possible magnetic quantum number are (5 pts)

$m_\ell = -\ell \ldots 0 \ldots +\ell$ $-1, 0, +1$ partial credit

4. For the angular momentum quantum number $\ell = 2$ the symbol is (s, p, (d) f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element Cl

$1s^2, 2s^2, 2p^6, 3s^2, 3p^5$

partial credit

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 9:55 am B quiz # 4-8

Name key (print name) Name _____ (sign name)

Please show all work for full credit.

1. Principal quantum numbers are also called the (shell, subshell, orbital) (circle one)

angular momentum (left off -1) quantum number is abbreviated ~~ℓ~~ is also called the subshell.

spin quantum number is abbreviated m_s (a letter symbol)

magnetic quantum number is abbreviated m_ℓ (a letter symbol) (2 pts each, 8 pts total)

2. For principal quantum number 6 the possible angular momentum quantum numbers ~~are~~ (5 pts)

$\ell = 0, 1, \ldots (n-1)$ 0, 1, 2, 3, 4, 5 (partial credit)

3. For angular momentum quantum number 3 the possible magnetic quantum numbers are (5 pts)

$m_\ell = -\ell, \ldots 0, \ldots +\ell$ −3, −2, −1, 0, +1, +2, +3 (partial credit)

4. For the angular momentum quantum number $\ell =$ 3 the symbol is (s, p, d, f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element Si

$1s^2, 2s^2, 2p^6, 3s^2, 3p^2$ (partial credit)

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 8:30 am A quiz # _____

Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

1. principal quantum number is abbreviated _____ (a letter) and is correlated with the

_____ numbers in the periodic table.

magnetic quantum number is abbreviated _____ (a letter symbol)

spin quantum number is abbreviated _____ (a letter symbol) (2 pts each, 8 pts total)

2. For principal quantum number 5 the possible angular momentum quantum number are (5 pts)

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3. For angular momentum quantum number 3 the possible magnetic quantum number are (5 pts)

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4. For the angular momentum quantum number $\ell = 0$ the symbol is (s, p, d, f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element P

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 8:30 am B quiz # _____

Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

2. principal quantum number is abbreviated _____ (a letter) and is correlated with the

_____ numbers in the periodic table.

spin quantum number is abbreviated _____ (a letter symbol) (2 pts each, 8 pts total)

magnetic quantum number is abbreviated _____ (a letter symbol)

2. For principal quantum number 4 the possible angular momentum quantum numbers are (5 pts)

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3. For angular momentum quantum number 2 the possible magnetic quantum numbers are (5 pts)

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4. For the angular momentum quantum number ℓ = 1 the symbol is (s, p, d, f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element S

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 9:55 am A quiz # _____

Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

1. Principal quantum numbers are also called the (shell, subshell, orbital) (circle one)

_____ quantum number is abbreviated ℓ is also called the subshell.

magnetic quantum number is abbreviated _____ (a letter symbol)

spin quantum number is abbreviated _____ (a letter symbol) (2 pts each, 8 pts total)

2. For principal quantum number 3 the possible angular momentum quantum number are (5 pts)

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3. For angular momentum quantum number 1 the possible magnetic quantum number are (5 pts)

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4. For the angular momentum quantum number $\ell = 2$ the symbol is (s, p, d, f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element Cl

Quiz V General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/25 R 9:55 am B quiz # _____

Name _____ Name _____
(print name) (sign name)

Please show all work for full credit.

1. Principal quantum numbers are also called the (shell, subshell, orbital) (circle one)

_____ quantum number is abbreviated ℓ is also called the subshell.

spin quantum number is abbreviated _____ (a letter symbol)

magnetic quantum number is abbreviated _____ (a letter symbol) (2 pts each, 8 pts total)

2. For principal quantum number 6 the possible angular momentum quantum numbers are (5 pts)

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3. For angular momentum quantum number 3 the possible magnetic quantum numbers are (5 pts)

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4. For the angular momentum quantum number ℓ = 3 the symbol is (s, p, d, f) (circle one) (2 pts)

extra credit: 3 pts

Give the electron configuration for the element Si