

# SOCW4015

<cbci fg'F YgYUfW\ 'H\Yg]g

HYfa " z&\$&&



5W\_bck `YX[ Ya YbhcZ'7ci blfm

I BGK '5fjz8Yg][ b'UbX'5fWk]fYWi fY'Ybg]b[ hcb'UbX'DUXX]b[ hcb'Wla di gYg'UfY'Vi ]hcb'5Vcf][ ]bU`

7ci fgY'8YHJ]`g

I b]hg'cZ7 fYX]h\*`

Gi a a UfmicZ`h`Y'7ci fgY

H\Y'6UW\Y`cf'cZGcWU`K cf\_`fk`cbci fgk`dfc[ fUa `dfcj ]XYg`ghi XYb]g`h`Y`cddcfhi b]m]h`c`XYa cbg]fUHY`  
YUfb]b[ `]b`UXj UbW`X`\_bck`YX[ Y`UbX`g\_]`g`fYei ]fYX`Zc`fYgYUfW\`]b`gcWU`k cf\_`cf`U`fY`UH`X`\`YU`h`#`Y`ZUfY`  
UfYU`H\Y`<`cbci fg`F`YgYUfW\`H\Yg]g`Wci fgY`GC`7`K`(`\$%)`]g`h`Y`W`b`f`U`Z`c`W`g`c`Z`@`j`Y`(`<`cbci fg`]b`GcWU`  
K`cf\_`Zc`f`h`c`g`Y`gh`i`XYb]g`k`l`c`g`Y`Y`W`h`c`i`b`XY`f`U`\_`Y`<`cbci fg`j`]U`U`F`Y`g`Y`U`f`W`H`Y`g`]g`H`Y`g`W`c`i`fg`Y`]g`V`U`g`Y`X`  
cb`U`gi`g`h`U`]b`Y`X`Z`]b`!`XY`d`h`'`gh`X`m`c`Z`f`Y`g`Y`U`f`W`'a`Y`h`c`X`g`U`b`X`'X`Y`g`][`b`]b`h`[`f`U`h`X`'h`f`c`i`[`l`c`i`h`h`Y`'6`G`K`'f`k`c`b`g`"l`  
dfc[ fUa "`G`h`X`Y`b`h`g`k`]`V`Y`]b`X`j`]X`i`U`m`gi`d`d`c`f`h`Y`'V`m`U`b`'U`W`X`Y`a`]W`g`i`d`Y`f`j`]g`c`f`h`c`i`b`X`Y`f`U`\_`Y`'U`%`&`Z`\$`\$`k`c`f`X`  
]b`X`Y`d`Y`b`X`Y`b`h`Y`a`d`]f`]W`'c`f`W`c`b`W`d`h`U`'f`Y`g`Y`U`f`W`'d`f`c`Y`W`h`]b`'h`Y`]f`U`f`Y`U`'c`Z`]b`h`f`Y`g`h`'H`Y`'h`Y`g`]g`k`]`  
X`Y`a`c`b`g`f`U`h`'h`Y`]f`U`V`]m`U`g`U`i`h`c`b`c`a`c`i`g`'f`Y`g`Y`U`f`W`Y`f`g`U`b`X`'k`]`Y`b`U`V`Y`'g`h`X`Y`b`h`g`'h`c`d`f`c`W`Y`X`'h`c`U`  
D`f`c`Z`g`]c`b`U`'8`c`W`c`f`U`h`']b`G`c`W`U`'K`cf\_`cf`c`h`Y`f`f`Y`g`Y`U`f`W`'X`Y`[`f`Y`g`"

7ci fgY`@YUfb]b[ `Ci hWca Yg

%`:`cfa`i`UH`U`f`Y`g`Y`U`f`W`'ei`Y`g`h`c`b`Z`c`f`U`'d`U`f`h`W`'U`f`W`c`b`h`i`h`c`f`f`Y`g`Y`U`f`W`'j`g`g`i`Y`'U`b`X`'↑`g`h`Z`m`h`Y`  
U`d`d`f`c`d`f`U`h`'a`Y`h`c`X`c`c`[`m`U`b`X`'f`Y`g`Y`U`f`W`'a`Y`h`c`X`g`  
&`≠`X`Y`b`h`Z`m`U`b`X`'U`b`U`m`g`Y`'W`h`]W`'m`h`Y`'X`]Z`Y`f`Y`b`h`h`Y`c`f`Y`h`]W`'d`Y`f`g`d`Y`W`h`j`Y`g`'h`U`h`a`U`m`]b`Z`i`Y`b`W`'h`Y`  
f`Y`g`Y`U`f`W`'d`f`c`W`g`g`'U`b`X`'U`f`Y`U`'c`Z`g`h`X`m`  
'`"8`Y`a`c`b`g`f`U`h`'U`k`U`f`Y`b`Y`g`g`c`Z`l`c`k`'m`c`i`'U`j`Y`'j`a`d`'Y`a`Y`b`h`X`'U`b`'Y`h`]W`'f`Y`g`Y`U`f`W`'d`f`c`W`g`g`'  
(`"9`i`Y`W`'h`'U`'f`Y`g`Y`U`f`W`'d`f`c`Y`W`h`h`U`h`X`Y`a`c`b`g`f`U`h`g`'h`Y`W`b`]W`'g`\_]`b`'f`Y`g`Y`U`f`W`'a`Y`h`c`X`g`U`b`X`'f`Y`g`Y`U`f`W`  
X`Y`g`][`b`'c`f`U`'h`f`b`U`h`j`Y`'m`g`\_]`b`'[]`Y`b`Y`f`U`h`]b`[]`W`c`b`W`d`h`U`'U`b`U`m`g`Y`g`'h`c`f`Y`Z`Y`W`h`c`b`'h`Y`'f`Y`g`Y`U`f`W`'j`g`g`i`Y`  
W`X`c`g`Y`b`  
)`"7`c`b`g`f`i`W`h`U`'h`Y`g`]g`k`l`]W`'X`Y`a`c`b`g`f`U`h`g`'g`W`X`c`U`f`m`W`U`d`U`V`]m`

HYUW\]b[ `GhfUH[ ]Yg`

5g`gh`i`XY`b`h`g`'U`f`Y`'i`b`X`Y`f`U`\_]b[ `U`b`']b`X`Y`d`Y`b`X`Y`b`h`f`Y`g`Y`U`f`W`'d`f`c`Y`W`h`k`'Y`f`Y`'h`Y`m`k`]`W`X`c`c`g`Y`'h`Y`]f`c`k`b`'f`Y`g`Y`U`f`W`  
g`d`Y`W`]U`'m`U`f`Y`U`'U`b`X`'a`Y`h`c`X`c`c`[`m`z`'h`Y`m`k`]`V`Y`]b`X`j`]X`i`U`m`gi`d`Y`f`j`]g`Y`X`'V`m`U`b`'U`W`X`Y`a`]W`g`i`d`Y`f`j`]g`c`f`k`]h`  
Y`i`d`Y`f`h`g`Y`]b`Y`]h`Y`f`c`f`V`c`h`'c`Z`h`Y`g`Y`'U`f`Y`U`g`"H`Y`'g`i`d`Y`f`j`]g`c`f`k`]`d`f`c`j`]X`Y`'g`d`Y`W`]U`]g`h`\_`b`c`k`'Y`X`[`Y`'U`b`X`'g`\_]`g`'b`  
h`Y`'U`f`Y`U`'c`Z`f`Y`g`Y`U`f`W`'X`Y`g`][`b`'U`b`X`'j`a`d`'Y`a`Y`b`h`U`h`c`b`'U`b`X`'k`]`d`f`c`j`]X`Y`'c`b`[`c`]b[ `U`b`X`'W`c`a`d`f`Y`l`Y`b`g`]j`Y`Z`Y`X`V`U`W`  
c`b`'X`f`U`Z`g`'c`Z`h`Y`'h`Y`g`]g`'G`h`X`Y`b`h`g`'i`b`X`Y`f`U`\_]b[ `h`Y`'f`Y`g`Y`U`f`W`'h`Y`g`]g`k`]`U`'g`c`'d`U`f`h`W`d`U`h`']b`'f`Y`[`i`'U`f`'g`Y`a`]b`U`f`g`  
X`Y`g`][`b`Y`X`'h`c`'g`i`d`d`c`f`h`h`Y`]f`f`Y`g`Y`U`f`W`'d`f`c`W`g`g`'U`b`X`'Y`b`W`c`i`f`U`[`Y`'W`c`'Y`[`]U`'g`i`d`d`c`f`h`V`Y`h`k`Y`Y`b`'h`Y`'g`h`i`XY`b`h`g`]b`'h`'j`g`  
g`h`f`Y`U`a`"



## 5 HbXUbW F Yei JfYa YbHg

DUfbYfg\]dg'UbX'Wc'UVcfUhfcb'VYfk'YYb'ghi'XYbHg'UbX'YXi'WUfcfg'UFY'dUfhjW'UFm]a' dcfUbh]b'gcWjU'k'cf\_ 'YUfb]b[ "5g'k'Y'z'hc'a'U]b]b]b'ci'f'UWVYX]h]h]cb'Ug'U'dfcj' ]XYf'cZgcWjU'k'cf\_'YXi'WU]cbz]h]g]ja' dcfUbh]h]U' YUW'ghi'XYbh]ZbXg'h]Ya'gY'j'Yg]b'Ub'Ybj' ]fcb'a'Ybhk' \Yf' h]YmUFY'UV'Y'hc'YI'dYf]YbW'U'Wcb]h]bh]hc'U' \ ] \ 'Yj'Y'cZXYd'h]UbX'Yb[ U[ Ya'Ybh': cf'h]g'fYUgcbz'UW]j'Y'dUfh]W]dU]h]cb'UbX'Wc'a' ]h'a'Ybh]hc'U]h]YbXUbW' ]g' YI'dYWVY'cZU'ghi'XYbHg"

7ca'dUgg]cb'UbX'WcbWf'Zcf'ghi'XYbhk'Y'Z]fY' ]g'k' \Uhk'Y'gh]j'Y'Zcf' ]b'ci'f'dfcj' ]g]cb'cZgcWjU'k'cf\_ 'YXi'WU]cb'UbX'h]g] ]g'YbUV'YX'Vm]k'c]k'Um]Wc'a'a' ]b]WU]h]cb'"7ca'a' ]b]WU]h]cb' ]g'YgdYWjU'm]a' dcfUbh]k' \Yb'U' ghi'XYbh]g'YI'dYf]YbW]b[ 'YUfb]b[ 'VUff]Yfgz'dUfh]W'Uf'm]h]cgY'k' \ ]W'U'ZYZW]WUgg'U]h]YbXUbW'UbX'Wc'a'd'Y]h]cb' cZ]bXYdYbXYbh'YUfb]b[ 'h]Ug\_g"

Hc'Ybgi'fY'h]U]h]ghi'XYbh'YUfb]b[ 'UbX'k'Y'VY]b[ ' ]g'Uh]h]Y'ZcfY'Zcb]hc'ZU'XYW]g]cbg'a'UXYZ'k'Y'YbWc'i'fU[ 'Y'U' ghi'XYbHg'hc'Wc'a'a' ]b]WU]h]U'bm]VUff]Yf'hc'U]h]YbXUbW'hc'mc'i'f'Wc'i'fgY'Wcb]Y'bcfz'Y'W]i'fY'cf'h]hc'f'Ug'gccb'Ug' d'cg]V'Yz'gc'U'Wc'UVcfUhf]j'Y'd'Ub'Wcb'VY'XYj'Y'cdYX'hc'k'cf\_'Ufci'bX'h]YgY'VUff]Yfg"

Z'mc'i'f'U]h]YbXUbW' ]g'UZYWVY'Zcf'U' ]a' ]h]X'dYf]cX'cZ]h'a'Yz'k'Y'k' ]'fY'Zf'mc'i'hc'gY'YWVY'U'h]fbU]h]h]Ug\_g'k'Y' \Uj'Y'WYU]h]X'hc'dfca'ch]m'c'i'f'UWVY'gg'hc'j' ]h]U'Wcb]h]bh]b'h]g'Wc'i'fgY' "H'YgY'U'h]fbU]h]j'Y'h]Ug\_g'Wcb'U'gc'VY' Wc'a'd'Y]h]X'Vm]igh]XYbHg'k' \cgY'U]h]YbXUbW' ]g'YI'Ya'd'Uf]m]UbX'k' \c'k' ]g' \hc'YI'h]bX'h]Y]f'YUfb]b[ "K'Y'k' ]' YI'dYW]m'c'i'hc'h]U\_Y'Z' 'fYgdc]bg]V] ]m]UbX' ]b]h]U]h]j'Y'Zcf'Wc'a'd'Y]h]b[ 'h]YgY'U'h]fbU]h]h]Ug\_g'UbX'hc'Ybgi'fY'h]U]h] ]b'Wc'a'd'Y]h]b[ 'h]Ya' ]m'c'i'XYj'Y'cd'U' [ccX'k'cf\_]b[ '\_bck'YX[ 'Y'cZ]h]Y'Wcb]h]bh]a' ]ggYX"

Ci'f'U]a' ]g'hc'Zc]gh]f'Ub'Ybj' ]fcb'a'Ybhk' \Yf'Y'ghi'XYbHg'ZY'Wc'a'Zcf]U'V'Y'Wc'a' ]b[ 'Zcf'k'UfX'fY[ UfX]b[ 'WcbWf]bg' UVci'h]h]Y]f'YUfb]b[ 'UbX'U]h]YbXUbW' "6UgYX'cb'YI'dYf]YbWz' ]Z'mc'i'f'U]h]YbXUbW'Xfcdg'VY'ck'U'W'f]U]b'Yj'Y' ]h]g'i'b' ]Y'm]m'c'i'k' ]' \Uj'Y'h]Y'g\_] ]g'UbX'\_bck'YX[ 'Y'hc'Y'ZYZW]j'Y'm]UW] ]j'Y'h]Y'Y'Ufb]b[ 'ci'h]Wc'a'Yg'cZ]h]g' Wc'i'fgY/k' \ ]W' ]g'k' \mk'Y' \ ] [ \m]YbWc'i'fU[ 'Y'UW]j'Y'U]h]YbXUbW'UbX'dUfh]W]dU]h]cb'"K' ]h'Y'ZYZW]j'Y' Wc'a'a' ]b]WU]h]cb'UbX'd'Ubb]b[ 'k'Y'YbXYUj'ci'f'hc'U]c]X]g]h]U]h]cb]g'k' \Yf'Y'ghi'XYbHg'ZY' h]Ym] \Uj'Y'bch' UXYei'U]h]m]Yb[ U[ YX'k' ]h' h]Y'Wc'i'fgYz'UbX'h]YfY'Zcf'Y'gh]cb[ 'm]YbWc'i'fU[ 'Y'ghi'XYbHg'hc'Wc'a'a' ]b]WU]h]U'bm' WcbWf]bg'Ug'YUf]m]Ug'dcgg]V'Y'"K'Y'k'Ub]hc'U[ U]b'Ya'd'Ug]g]Y'h]Y' ]a' dcfU]bW'cZ'Wc'UVcfUhf]cb'UbX' Wc'a'a' ]b]WU]h]cbz'UbX'UW\_bck'YX[ 'Y'h]Y'i'b]j'Y'W]f]W'a'g]h]UbW]g'ghi'XYbHg'a'Um]Z]bX'h]Ya'gY'j'Yg'YI'dYf]YbW]b[ "

## 7ci fgY GWX YXi Y

[J \]Yk'WUgg'h\]a'Yh\]U'Y](#)

H]a'Yh]U'Y'

8UhY	HmdY	7cbhYbh
C'k'YY_' ) 'GYd]h]a'VYf! - 'GYd]h]a'VYf	GYa ]bUf	GYa ]bUf'%'<cbci'fg'h]Y'g]g'G]h]i'W]i'fYz' F'YgYUfW' 'D'Ubz'UbX'Gi'dYf] ]g]cb'  ' '>i'bY'&\$&&  %\$. \$\$'hc'%'&.\$z'A'U]h]Y'k'g'%'\$+  GYa ]bUf'&@]h]Yf]U]h]i'fY'F'Yj' ]Yk'UbX'@]V]f]U]m' F'Ygci'fW]g  '%>i' ]m'&\$&&

		%. \$\$'hc' %&.\$ \$ZA U\Yk g' %\$+
K YY_ '%&'GYdhYa VYf !'% 'GYdhYa VYf	GYa ]bUf	GYa ]bUf" 'K f]h]b[ 'h\Y'h\Yg]g'DUfh%  %* 'GYdhYa VYf'&\$&&  %. \$\$'hc' %&.\$ \$ZE i UX'; \$&)
K YY_ ('.' 'C WtcVYf!' + C WtcVYf	GYa ]bUf	GYa ]bUf(' : YUhi fYg'cZU'GcW]U' F YgYUFW H\Yg]g  +'C WtcVYf'&\$&&  %. \$\$'hc' %&.\$ \$ZE i UX'; \$&)
K YY_+. '&' 'C WtcVYf! &,'C WtcVYf	GYa ]bUf	GYa ]bUf') 'K f]h]b[ 'h\Y'h\Yg]g'DUfh&  &,'C WtcVYf'&\$&&  %. \$\$'hc' %&.\$ \$ZE i UX'; \$&)
K YY_-'+'Bcj Ya VYf! %%Bcj Ya VYf	GYa ]bUf	GYa ]bUf*' '7ca d'Yh]b[ 'h\Y'h\Yg]g  %%Bcj Ya VYf'&\$&&  %. \$\$'hc' %&.\$ \$ZE i UX'; \$&)

F Ygci fWg

DfYgWf]VYX F Ygci fWg

H\Yfy ]g'bc `WcfY`hI hZcf'h ]g`Wci fgY`U`hci [ \ `hY`hI hZcf`GC 7 K ( \$%%`]b`HYfa`%k ]`XYZ]b]h`mVY`Y`dZ`!



A i bZcFzF "/ 'GUbXYfgž>"f&\$\$' E"A U\_]b[ 'U'X]ZYfybWV ']b ZJa ]Yg. F YgyUfWV 'hUhWfYUhfYg'WUub[ Y""7 fck g BYgh '5`Yb/ 'I bk ]b"

BYi a UbžK "@'f&\$% E'GcWU'fYgyUfWV 'a YhcXg. E i U']fUhfj Y'UbX'ei UbhfUhfj Y'UddfcUWVYg'f' h'YX"E"; 6. DYUfgcb'9Xi WUhfcb'@]a ]fYX"

BYi a UbžK "@' / '? fYi [ Yfž@'K "f&\$\$' E'GcWU'k cf\_ 'fYgyUfWV 'a YhcXg. E i U']fUhfj Y'UbX'ei UbhfUhfj Y'Udd'WUhfcbg" '6cgrcb' A 5. '5`mb'UbX'6UWčb"

F cmgYž8 "f&\$%+E" F YgyUfWV 'a YhcXg']b'gcWU'k cf\_ 'f+h'YX"E"7 c[ bY`U'5WUXYa ]WDi V']g\]b[ ""

F i V]bž5 "ž/ '6UVV]Yž9" F "f&\$\$, E" F YgyUfWV 'a YhcXg'žcf'gcWU'k cf\_ 'f' h'YX"E" '6Y'a cblž7 5. 'H\ca gcb <][ \Yf'9Xi WUhfcb"

Ga ]hžF "f&\$\$- E'8c]b[ 'gcWU'k cf\_ 'fYgyUfWV ""@cbXcb. 'C dYb' I b]j Yfg]mDfYgg"

GUfUbfU\_cgžG "f&\$\$) E" GcWU'fYgyUfWV 'fI fX'YX"E" @cbXcb. 'A UWa ]'Ub"

K U\_YfžA "f&\$% E'GcWU'fYgyUfWV 'a YhcXg". 'C I žcF' I b]j Yfg]mDfYgg'5BN

K U'fžA "f9X"E'f&\$\$\* E'GcWU'fYgyUfWV 'a YhcXg. 'Ub'5i ghfU'U'ub'dYfgdYWfj Y""Gci h' A Y'Vci fbY. 'C I žcF

M]bžF "? "f&\$\$- E'7 UgY'gh XmfYgyUfWV. '8Yg][ b'UbX'a YhcXg" f( h'YX"E'GU[ Y'Di V']WUhfcbgž@cbXcb' I ?"

M]bžF "? "f&\$%&E'5dd']WUhfcb'cZWUgY'gh XmfYgyUfWV ""GU[ Y'Di V']WUhfcbgž@cbXcbžI ?"

F Y'Yj Ubh>ci fbU'g

5i ghfU']Ub'GcWU'K cf\_

6f]hg\ '>ci fbU'cZGcWU'K cf\_

7\]X'UbX': Ua ]mGcWU'K cf\_

7\]XfYb'UbX'Mci h'GYfj ]Wg'F Yj ]Yk

hYfbUhfcbU'>ci fbU'cZGcWU'K Y'ZJfY

hYfbUhfcbU'GcWU'K cf\_

>ci fbU'cZ7\]X'UbX': Ua ]mGh X]Yg

>ci fbU'cZGcWU'K cf\_ '9Xi WUhfcb

>ci fbU'cZGcWU'GYfj ]W'F YgyUfWV

E i U']fUhfj Y' h'ei ]fm

F YgyUfWV 'cb'GcWU'K cf\_ 'DfUWfWV

GcWU'K cf\_

GcWU`K cf\_`F YgYUfW

F YWca a YbXYX`cb`jY`a UHfY]U`g`UbX`chYf`i gYZi ``gci fWg

H\YfY`jg`U`k ]XY`fUb[ Y`cZ`ei fbU`g`UbX`fYgci fWg`cb`jY`Ug`k Y`Ug`U`bi a VY`f`cZgdYWZ]WfYgci fWg`h`Uh  
gh XYbHg`a Umik ]g`h`c`Vcbg]XYf`Z`f`a cfY`XYU]YX`j]bZ`fa Uh]cb`UbX`h`Y]f`UggYgga YbHg.

bfX`Xi W]cb`h`c. `F Ud]X`F YgdcBgYg`!`h`d.## k k "d\W]g"cf[ "Ui # i ]XYg#fUd]X`SfYgdcBgYg`d`d

F Ud]X`9j ]XYbW`F`Yj ]Yk`Hcc`\_`h`h`d.## YVUfW]j Y`bUh]cbU`UfW]j Yg"[ c] "i \_#&\$%( \$' \$) %&&, %\* #h`d.## k k "W  
j`]gYfj ]W"[ c] "i \_#Yh`k cf\_g#] gf#Ygci fWg!UbX![ i ]XUbW`#fUd]X!Yj ]XYbW`!UggYgga Ybh

7cbW`dh`i U`F YgYUfW`!`h`d.## a`i a Ub!bUh`fY`Wca`#fa`mci b[ #dUdYfg`#bW`dh`h`a`

C f[ Ub]h]b[ `Mci`f`GcWU`G`WYbW`g`F`YgYUfW`D`UdYf.`H`Y`c`f`h`W`]:`fUa`Yk`cf\_  
h`d.##]V[ i ]XYg`i`gWYXi`#`f]h]b[ [ i ]XY`#`h`Y`c`f`h`W`fUa`Yk`cf\_

GcWU`K cf\_`Dc`]W`h`b`gh`h`i`h`-`9j ]XYbW`6`UgYX

DfUW]W`h`d.## k k "gcWU`k cf\_dc`]W`h`c`f[ #YgYUfW`#j ]XYbW`!VUgYX!dfUW]W`!&`h`a`

GcWU`F YgYUfW`5ggcW]Uh]cb`k`k`k`h`Y!gfU"cf[ "i \_

E`i`Ub]h]h]j`Y`F`YgYUfW`8`Yg][ b`!`h`d.## k k "Yi`dYf]a`Ybh`fYgci`fWg`Wca`#e`i`Ub]h]h]j`Y!fYgYUfW`!XYg][ b`h`a`

9j ]XYbW`6`UgYX`DfUW]W`]b`<`YU`h`7`UfY`!`h`d.## k k "V]ca`YX`"]V`i`a`b`YXi`#YUfb`#Vd`#

Dfc[ fUa`9j`U`i`Uh]cb`UbX`8`Yg][ b`!`h`d.## a`UbU[ Ya`Ybh`Y`d"cf[ #j`U`i`Uh`#b`SYj`U`h`a`

7Ua`dVY`7`c`U`V`c`f`U`h]cb`!`G`m`g`h`a`U`h]W`F`Yj`]Yk`

h`d.## k k "WUa`dVY`Wc`U`V`c`f`U`h]cb"cf[ #Ygci`fWg`#fU]b]b[ #h`YS`b`f`c`X`i`W`c`f`m`S`A`Y`h`c`X`g`d`d

H`Y`7`c`U`h]cb`Z`f`9j ]XYbW`6`UgYX`Dc`]W`h`h`d.## h`U`h]cb( Yj ]XYbW`"cf[ #Y`d!`XYg`#`cf\_g`h`cd# ]XYcg`#

GcWY`m`Z`f`GcWU`K`cf\_`UbX`F`YgYUfW`!`h`d.## k k "ggk`f"cf[ #

GcWU`F YgYUfW`5ggcW]Uh]cb`k`k`k`h`Y!gfU"cf[ "i \_

E`i`Ub]h]h]j`Y`F`YgYUfW`8`Yg][ b`!`h`d.## k k "Yi`dYf]a`Ybh`fYgci`fWg`Wca`#e`i`Ub]h]h]j`Y!fYgYUfW`!XYg][ b`h`a`

Dfc[ fUa`9j`U`i`Uh]cb`UbX`8`Yg][ b`!`h`d.## a`UbU[ Ya`Ybh`Y`d"cf[ #j`U`i`Uh`#b`SYj`U`h`a`

7ci`fgY`9j`U`i`Uh]cb`UbX`8`Yj`Y`c`da`Ybh

GC`7`K`(\$%)`h`Ug`V`Y`Y`b`c`Z`Y`f`Y`X`Z`c`f`g`Yj`YfU`m`Y`U`f`g`b`c`k`z`UbX`Z`Y`X`V`U`W`\_`Z`f`c`a`g`h`i`X`Y`b`h`g`]g`U`k`U`m`g`k`Y`W`ca`Y`"

h`i`]b`Y`k`]h`g`h`i`X`Y`b`h`Z`Y`X`V`U`W`\_`k`Y`h`U`j`Y`i`b`X`Y`f`U`\_`Y`b`W`c`b`g`i`h`U`h]c`b`g`k`]h`g`h`i`X`Y`b`h`g`UbX`]b`\_`Y`X`h`Y`d`f`Y`d`U`f`U`h]c`b`  
Z`f`h`Y`W`c`i`f`g`Y`a`c`f`Y`W`c`g`Y`m`k`]h`U`g`g][`ba`Y`b`h`g`W`ca`d`Y`h`X`]b`GC`7`K`(\$%%`G`h`i`X`Y`b`h`g`k`Y`f`Y`[`i`]X`Y`X`h`c`  
g`i`[`[`Y`g`h`U`g]b[`Y`f`Y`g`Y`U`f`W`e`i`Y`g`h]c`b`c`f`h`c`d]W`h`c`Y`b`U`V`Y`g`i`]h`U`V`Y`U`c`W`h]c`b`c`Z`g`i`d`Y`f`j`]g`c`f`g`]b`H`Y`f`a`%"`  
7`c`b`h`b`h`c`Z`g`Y`a`]b`U`f`g`]g`Y`b`f`W`X`Y`X`V`m`g`h`i`X`Y`b`h`Z`Y`X`V`U`W`\_`U`V`c`i`h`h`c`d]W`g`h`Y`m`k`c`i`X`Z`]b`X`h`Y`d`Z`h`c`W`c`j`Y`f`

]bWi X]b[ 'XYj Y`cd]b[ 'U'fYgYUfWk 'd'Ubž'h.]b\_]b[ 'UVci h'hY]f'dcg]h]cbU' ]micf'g]UbXdc.]bh]b 'h'Y'f'YgYUfWkž'UbX  
a UbU[ ]b[ 'Wča dYh]b[ 'XYa UbXg'Xi f]b[ 'h'Y]f'WUbX]XUh fY": i fh'Yf'Z'YXVUW\_k ]'VY' [ Uh'YfYX'dYf]cX]WU`m  
i g]b[ 'l' BGK f]A m9I dYf]YbW'gi fj YmUbX'h'fci [ \`Ygg'Zcfa U'WUbbY'g'gi W'Ug'Ya U]'UbX'ga U'' [ fci d  
X]gW'gg]cb"

a ]gg]cb`cZ5ggYgga YbhiHUg\_g

]b`Gi Va ]gg]cb`

YbWci bhYf`U`dfcV`Ya`k` \Yb`U`H`Ya` dh]b[ `hc`gi Va ]hmc`i f`Ugg][ ba Ybh`h`fci [ \`Hi`fb]h]bzd`YUgY  
cbY`9I`H`fbU`Gi` ddcfhcb`-` ,` )` " ` ' ` %cf`Ya U]`h`Ya` `cb`YI`H`fbU`H`hgi` ddcfh4` i` bgk` "YXi` "Ui

fh\ci fg`UfY` ,` .\$`\$Ua` -`-%\$.`\$da` `cb`k`YY`\_XUmg`UbX`-`.\$`\$Ua` -`.)` .\$`\$da` `cb`k`YY`\_YbXg`f1`\*)` `XUmg`U  
=Zmc`i` `UfY`i` bUV`Y`hc`gi Va ]hmc`i f`Ugg][ ba Ybh`Xi` Y`hc`U`ZU`i` `hk` ]h` Hi`fb]h]bžmc`i` `a` UmiUdd`m`Zcf`Ub  
]cbžVi` hmc`i` `a` i` ghfY`hU]b`mc`i` f`h]W`Yhbi` a` VYf`Zca` `9I`H`fbU`Gi` ddcfhfU`cb[ `k` ]h` Ubmch`h`Yf`fY`Yj` Ubh  
Ybhg`k`hc`]bW`i` XY`Ug`Yj` ]XYbW`hc`gi` ddcfhmc`i` f`YI`H`bg]cb`Udd`]W]h]cb" `=Zmc`i` `Ya` U]`9I`H`fbU`Gi` ddcfhž  
`"Ui` hca` U]W`m`mfYW`j` Y`U`h]W`Yhbi` a` VYfžVi` h]Zmc`i` `H`Yd`cbYžmc`i` `k` ]`b`Y`Y`X`hc`gd`Y`W`Z`W`m`Ug`\_`Zcf  
i`fb]h]b`U`gc`dfcj` ]XYg`i` dXU`H`g`cb`h`Y`f`gmg`h`Ya` `gh`U`h`g`cb`Hk` ]H`Y`f`"

U`mž`UggYgga YbhiUg\_g`a` i` ghVY`gi Va ]hY`X`Y`Y`W`fcb]W`m`j` ]U`Y`h`h`Y`f`Hi`fb]h]b`cf`U`A` ccX`Y  
a` Ybh`h`-`h`]bgh`UbW`g`k` \YfY`h`]g`]g`bchdcgg]V`Yž`U`H`fbU`h]`Y`gi Va ]gg]cb`XY`hU]`g`k` ]`VY`gh`U`H`X`cb`mc`i` f  
`g`A` ccX`Y`g`]H`" :` cf`]b`Z`ca` U]cb`cb`\ck` `hc`gi Va ]hUgg][ ba Ybhg`cb`]bY`j` ]U`A` ccX`Y`.  
[#gh`XYbhi`bgk`"YXi`"Ui`#ck`!gi`Va`\]hUgg\]\[ba`Ybha`ccX`Y`](#)

gi Va ]gg]cb`dYbU`hm

`\Ug`U`gh`Ub`XU`fX`U`H`gi Va ]gg]cb`dYbU`micZ

## 5 WUXYa ]W< cbYgmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`cfXg`cf`]XYUg`cZc`h`Yfg`UbX`d`fYgYb]b[ `h`Ya`Ug`mci`f`ck`b`" `#WUb`hU`\_`Y`a`Ubm`  
Zcfa`gZ`Zca`X`Y`]VYfU`h`V`X`Y`U`h]b[ `h`c`U`W`W`X`Y`b`h`U`m`i`W`c`d`m]b[ `Z`ca`U`g`ci`f`W`k`]h`ci`h`U`W`\_`b`ck`Y`X[ `Ya`Y`b`h`

I`B`G`K` `[`f`ci`d`g`d`U[ ]Uf]ga `]b`h`c`h`Y`Z`c`ck`]b[ `W`U`h`Y`[`c`f]Y`g.

- 7`c`d`m]b[ .`I`g]b[ `h`Y`g`Ua`Y`c`f`j`Y`f`m`g]a`]U`f`k`c`f`X`g`h`c`h`Y`c`f][`]b`U`h`Y`i`h`c`f`]X`Y`U`k`]h`ci`h`U`W`\_`b`ck`Y`X[`]b[

## 5WUXYa ]WbZcfa Uh]cb

8i Y'fc'Yj c'] ]b[ 'UX] ]W'VmB GK ' < YU'hž'gh XYbh'ia i gh'WXYW'Zcf'i dXU'YX']bZcfa Uh]cb'fY[ UfX]b[ 'cb]bY 'YUfb]b[ 'Zcf'U''5fngž8Yg][ b'UbX'5fW]h'W'fY'W'ei fgYg'h]g'h'fa 'fj ]U'A ccX'Y'cf'W'ei fgY']bZcfa Uh]cb dfcj ]XYX'E"

D'YUg'Y'gYY. : [\hdg.##k k k "i bgk "YXi "Ui #Jfng!XYg\]\[ b!UfW \]h'W'fY'gh XYbh \]Z#Ygci fWglgi ddcfh#dfch'W'gl \[i \]XY\]bYg \]Zcf'YggYbh\]U''gh XYbh\]bZcfa Uh\]cb'fY'Uh\]b\[ 'fc.](#)

- I B GK 'UbX': UW 'hmdc`]W]g'UbX'dfcW'Xi fYg/
- Gh XYbhGi ddcfhGYfj ]W]g/
- 8YUb'g@]gh/
- fYj ]Yk 'cZfYgi 'hg/
- W'YX]h'f'UbgZ'f/
- W'cgg! ]bgh]h' h]cbU''gh XmUbX'YI W'XUb[ Y/
- YI Ua ]bUh]cb ]bZcfa Uh]cb/
- Ybfc'a Ybh]bZcfa Uh]cb/
- GdYW]U''7cbg]XYfUh]cb ]b'h'Y'Yj Ybhcz]'bYgg'cf'a ]gUXj Ybh' fY/
- gh XYbhYei ]mUbX'X]gUV]'m/

5bX'ch'Yf'YggYbh]U''UWUXYa ]W]bZcfa Uh]cb"

⇒ U[ Y'7fYX]h

D\ch'W'YX]h'6'i Y'A ci bh]bg"5VbYf'Dccbž'&&&"

7F ⇒ CG

7F ⇒ CG'Dfcj ]XYf'7cXY.'\$\$\$- ;