## A Uh`UW\U'<ca Yg'Gh]``'G\U\_Yb'Vm <i ff]WUbY'=Ub. FYg]XYbhg'8Ya UbX 5Wh]cb°



A Uh`UW Už: `cf]XUžI G5 !!H\Y'gWUfg'`YZh'Vm'<i ff]WUbY'=Ub'UfY gh]``j Yfm'j ]g]V`Y']b'A Uh`UW Už: `cf]XUž'bYUf`m'h\fYY'mYUfg'UZhYf'h\Y ghcfa 'XYj UghUhYX'h\Y'UfYU"'< ca Yg'fYa U]b'XUa U[YX'UbX `YUb]b[ž'U'ghUf\_'fYa]bXYf'cZ'h\Y'\i ff]WUbY g'Zi fm"'5'`cWU``fYU` YghUhY'U[Ybhž'DUi`U'Hck Y``ž'j c]WYX'\Yf'WcbWYfbg'UVci h'h\Y dchYbh]U``]a dUWh'cZ'Ubch\Yf'\i ff]WUbY'gYUgcb'cb'h\YgY'U`fYUXm ZfU[]`Y'ghfi Whi fYg"'G\Y'dc]bhYX'ci h'h\Uh'h\Y'YbhfUbWY'hc'A Uh`UW\U]g'`]bYX'k]h\'fi VV`Y'UbX'dYf]`ci g`m'`YUb]b['\ca Ygž'Ub']bX]WUh]cb cZ'h\Y'cb[c]b['W\U'Yb[Yg'h\Y'Wca a i b]hm'ZUWYg'Ug']h'U]a g'Zcf fYWcj Yfm"

## H\Y'FYg]`]Ybh'7ca YVUW\_'Uh'Gci h\'GYUg =g`UbX'FYgcfh

A YUbk \]`Yžcb'7Udh]j U'=g`UbXžh\Y'Gci h\'GYUg'=g`UbX'FYgcfh']g

[YUf]b['id'Zcf'U'a U'cf'fYXYj Y`cda Ybh'YZZcfhž']bj Ygh]b[

Uddfcl]a UhY`m'`%'V]``]cb'hc'fYghcfY'UbX'Y`Yj UhY']hg'ZUW]`]h]Yg

Zc``ck]b['h\Y'XYj UghUh]cb'WUigYX'Vm'<iff]WUbY'=Ub']b'&\$&&"

I bXYf'h\Y'`YUXYfg\]d'cZ'79C'; fY['GdYbWf'Zfca'H]a VYfg'7c"ž'h\Y

fYgcfh'\Ug'fYa cj YX'cj Yf'%&\$'a]``]cb'dci bXg'cZ'XYVf]g'UbX

XYdcg]hYX'%\$\$ž\$\$\$'W'V]WmUfXg'cZ'gUbX'hc'g\cfY'id']hg'VYUWXYg"

=bhYfYgh]b[`mž'k\]`Y'Ufci bX'\*\$i 'cZ'h\Y'fYgcfh g'ghfi WhifYg'X]X'bch

gi ghU]b'k UhYf'cf'k]bX'XUa U[Yž'h\Ym'X]X'gi ZZYf'`cggYg'hc'h\Y]f

<J57'gmghYag'Xif]b['dfc`cb[YX'dckYf'ci hU[Yg"

5 fyg]`]Ybh'Z hi fy']g'U'df]cf]hm'Zcf'h\Y'Gci h\'GYUg'=g`UbX'FYgcfhž k\]W\']g'i d[fUX]b[']hg'ZUW]`]h]Yg'hc'VYhhYf'k]h\ghUbX'Zi hi fy ghcfa gž']bWi X]b['h\Y']bghU``Uh]cb'cZ'[YbYfUhcfg'k]h\'U'-\*!\ci f fi b'h]a Y"'H\Y'fYgcfh'\Ug'U`fYUXm'gdYbh'UVci h'` %\$'a]``]cb'cb fyg]`]YbWm'a YUgi fygž'gi W\'Ug'Y`Yj Uh]b['ghfi Whi fyg'%\$'ZYYh'UVcj Y gYU'`Yj Y`'UbX'XYg][b]b['U'[c`Z'Wci fgY'WUdUV'Y'cZ'a UbU[]b['&\$]bW\Yg'cZ'fU]b']b''^A gh'Zci f'\ci fg"'H\Y'cZZ]W]U`'fYcdYb]b[']g gW\YXi `YX'Zcf'A Um'&&ž'&\$&) ž'a Uf\_]b['bYUf`m'-\*+'XUmg'g]bWY'h\Y\i ff]WUbY'ghfi W\_"

## H\Y'6fcUXYf'D]Whi fY'Zcf'FYU`'9ghUhY

 $\label{thm:condition} $$H\Y`UZhYfa\ Uh\cZ'<iff]WUbY`$$\Ug``YZh`]hg`a\ Uf\_`cb`: `cf]XU\ g`fYU`YghUhY`a\ Uf\_Yhž`YgdYW]U``m`]b``WcUghU``Wca a i b]h]Yg"`5\WWcfX]b[`hc`UfYdcfh`Vm`J\ UghYfž`h\Y`\iff]WUbY``YX`hc`U`ZfYYnY`]b`hfUbgUWh]cbg\ UbX`U`Xck\ bhi\ fb`]b`dfcdYfhm`j\U`i\Yg`Xi\Y`hc`j\]g]V`Y`XUa\U[\Y`UbX\]b\WfYUgYX`f]g_`dYf\Wdh]cb"`<ck\Yj\Yfž`\]ghcfm`g\ck\g`h\Uh\bY][\Vcf\ccXg`]a\d`Ya\Ybh]b[``\iff]\WbY!fYg]ghUbh`i\d[fUXYg`hYbX\hc`fY\Wcj\Yf`dfcdYfhm`j\U`i\Yg`a\cfY`ei\]\\_`m`\Wca\dUfYX`hc`h\cgY``Ygg\dfYdUfYX"$ 

5g'k Y'VfUWY'Zcf'h\Y'i dWca ]b['\i ff]WUbY'gYUgcbž\ca Yck bYfg UfY'`YZh'[fUdd`]b['k]h\'\Y][\hYbYX']bgi fUbWY'dfYa]i a g'UbX'h\Y W\U``Yb[Yg'cZ'gYW'f]b['UZZcfXUV`Y'WcjYfU[Y"'GhfUhY[]Yg'Zcf a UbU[]b['h\YgY'Wcghg']bWi XY'g\cdd]b['Ufci bX'Zcf'VYhhYf'fUhYg UbX']bj Ygh]b[']b'\i ff]WUbY!dfccZ]b['a YUgi fYg'h\Uh'WUb'bch'cb`m gUZY[i UfX'dfcdYfh]Yg'Vi h'U`gc'Yb\UbWY'h\Y]f'j U`i Y"'H\Y fYg]`]YbW''cZ: `cf]XU g'fYU`'YghUhY'a Uf\_Yhž'Xf]j Yb'Vm'[fck h\'UbX'Ywcbca]WghUV]`]hmž'gi [[Yghg'h\Uhž'XYgd]hY'h\Y'W\U``Yb[Ygž'\cdY'fYa U]bg'U`]j Y"

cfbck žvch\ A Uh`UW\U'UbX`7Udh]j U'UfY`[fUdd`]b[ k]h\ h\Y]f fYgdYWh]j Y'fYWcj Yfm'dUh\g" 5g'gca Y'Wca a i b]h]Yg'`cc\_'hc fYVci bX'UbX'gi a a Yf'hci f]ghg'dfYdUfY'hc'fYhi fbž'h\Y'bYYX'Zcf ghfUhY[]Wd`Ubb]b[ 'UbX'dfcUWh]j Y']bj Ygha Ybhg'VYWca Yg ]bWfYUg]b[ `m'WYUf"'6ch\ fYWcj Yfm'gi WWYggYg'UbX'W\U``Yb[Yg'k]``g\UdY'h\Y'Z hi fY'cZ'h\YgY'VY`cj YX': `cf]X]Ub'XYgh]bUh]cbg"

8 Y hU]`g	
Cfh	A Uhiuwwuži icf]Xuži G5
EiY``Yb	• k k k "Zcl ( bck "Wca
	• k k k "mU\cc"Wca
	<ul><li>V`c["j UghYf"Wca</li></ul>

6Ygi WXYb G]Y i bg Ui Z. a Y]b!k ]Yb bYh