## : `cf]XU'Gi dfYa Y'7ci fh'l d\c`Xg'8YUh\GYbhYbWg'5a ]X'7cbhfcj Yfg]U`'5ddYU`g

9| d`cfY`h\Y`fYWYbh': `cf]XU'Gi dfYa Y`7ci fh'fi `]b[g'UZZYWh]b[XYUh\`dYbU`hm'WUgYgž'\][\`][\h]b['\_Ym'XYW]g]cbg'UbX]a d`]WUh]cbg"



@U\_Y'7ci bhmž: `cf]XUžI G5 !!Cb'; `m'%+ž'h\Y': `cf]XU'Gi dfYa Y 7ci fh'a UXY'\YUX`]bYg'k ]h\']hg'cd]b]cbg'cb'\_Ym'WUd]hU`'WUgYg'h\Uh UfY'gi fY'hc'gdUf\_'Wcbj YfgUh]cb'UWfcgg'h\Y'ghUhY"'H\Y'XYW]g]cbg ]bj c'j Y'gYf]ci g'X]gW' gg]cbg'gi ffci bX]b[''1 gh]WYž'Yj ]XYbWYž'UbX h\Y']bhYfdfYhUh]cbg'cZ'`cb[ghUbX]b[''Y[U`'dfYWYXYbhg"

±0 18 Uj ]g j "'GhUhYžBc"'G7&\$&(!%%, ž'HcbYm'8 Yfcb'8 Uj ]g ZUWYX h\Y ZU``ci hcZ'U Wcbj ]Wh]cb ghYa a ]b[ 'Zfca 'h\Y'%- - & a i fXYf'cZ'U hk c!mYUf!c`X"'5ZhYf'gYY\_]b[ 'U'Zci fh\ 'gi WWYgg]j Y'dcghWcbj ]Wh]cb a ch]cbž'8 Uj ]g WU]a YX'h\Uh'bYk `m'X]gWcj YfYX'Ui hcdgm'g`]XYg i bXYfa ]bYX'h\Y'GhUhY g'WUgY"'<Y'Uf[ i YX'h\]g gi ddfYgg]cb j ]c`UhYX'h\Y'dfYWXYbh'gYh'Vm'6fUXm'j "'A Ufm`UbXž'k \]W\ a UbXUhYg'h\Uh'Yj ]XYbWY'ZUj cfUV`Y'hc'h\Y'UVW'gYX'a i gh'VY

 $X]gWcgYX"'<ck\ Yj\ Yf\check{z}'h\backslash Y'`7ci\ fh'i\ bUb]a\ ci\ g`m'i\ d\ Y`X''h\backslash Y'W]fW'\ ]h \\ Wci\ fh\ g`XYW]g]cb\check{z}``UVY`]b[\ '8\ Uj\ ]g\ g`WU]a\ g`Ug'i\ bh]a\ Y`m'UbX'`UW_]b[\ a\ Yf]h''$ 

H\Y'6fUXm'j "'A Ufm`UbX'WUgY']hgY`Z'\][\`][\hg'h\Y']a dcfhUbW'cZZU]f'hf]U`gž'k\YfY'U'ZU]`i fY'hc'X]gWcgY'Wf]h]WU`'Yj]XYbW'WUb'`YUX'hc a ]gWUff]U[Yg'cZ'f gh]WW''=b'6fUXmg'WUgYž'\_Ym']bZcfa Uh]cb'k Ug k]h\\Y`X'h\Uh'Wci`X'\UjY']bZiYbWXX'gYbhYbW]b[ž'U`h\ci[\'h\Y GidfYaY'7cifh'i`h]a UhY`m'fi`YX'h\Uh'h\Y'Wcbj]Wh]cbg'kYfY'bch ibXYf'eiYgh]cbz'cb`m'h\Y'dYbU`h]Yg"

## : `YhWXYfg`FYgYbhYbW]b[ 'GU[ U

 $\label{thm: YhW} Yfz Wcbj ] WhY X^*] b^* \& \$ - ^*Zcf h Y^*a i f XYf c Z' < Y^*Yb^*; cc [Yz^*h Y'7ci fh^* UX'U'`ch^*bc' i bdUW_" c^*ch^*bc' i bdUW_" c^*ch^*bc' i bdUW_" bXYf^*h Y' < i fgh^*fi `]b [z': YhW Yf g'WUgY' k Ug'fYj ]g]hY X'' 8 Ygd]hY bXYf^*h Y' < i fgh^*fi `]b [z': YhW Yf g'WUgY' k Ug'fYj ]g]hY X'' 8 Ygd]hY fU]g]b [b]b Y'dc]b hg c Z'Udd YU z'g]l k YfY'df YgYfj YX' Zcf'fYj ]Yk z hci W ]b [cb'j Uf]ci g'Ugd Y Whg c Z'h Y hf]U df c W gg']b Wi X]b [dfcgY W hcf' WcbXi Whz' f fm']bghfi Wh]cbgz Ub X'h Y'df cdcfh]cbU`]hm c Z \]g gYbhYb W ''' I `h]a UhY`mz'h Y'7ci fh' UZZ]fa YX': YhW Yf g'XYUh gYbhYb W z'U`h ci [\i\i\i\g' gh]W '@UVUf[U'Yl df YggY X' \]g X]gU[fYYa Ybh UVci h' UV Ub Xcb]b ['dfcdcfh]cbU`]hm fYj ]Yk g U'hcd] Wgh]``g]a a Yf]b [']b ``c WU``Y[U`W]fWYg''$ 

## $K ]^{"}Jua g'HU_Yg'h Y'GhUb X$

A YUbk \]`Yž`]b`K ]``]Ua gʻj "'GhUhYžBc"'G7&\$&' !%\$\$\$ž'8cbU`X'Ch]g K ]``]Ua gž'k \cifYWY]j YX'U'XYUh\ gYbhYbW' Zcf'h\Y'&\$%\$'a i fXYf'cZUb', %!mYUf!c`Xž'fYdfYgYbhYX'\]a gY`Z'Xi f]b[ 'fYgYbhYbW]b[ "K ]``]Ua gʻk U]j YX'\]gʻf][ \hg`hc`U''\ffm'hf]U`'UbX'hc'dfYgYbh a ]h][ Uh]cb'Yj ]XYbWYž'k \]W\'VY[ gʻh\Y'ei Ygh]cb \ck 'WUb'Ub ]bX]j ]Xi U`'Zi ``m'Yb[ U[ Y`k ]h\'U'gmghYa 'XYg][ bYX'hc'VY'Wca d`YI 3 < ]g'UddYU`gʻfU]gYX'g][ b]Z]WUbh']ggi Ygʻ`]\_Y'h\Y'XYb]U`'cZ'U Wcbh]bi UbWY'Zcf'U'a ]h][ Uh]cb'gdYW]U`]gh'UbX'h\Y'Wcbgh]hi h]cbU`]hm cZ': `cf]XU g'WUd]hU`'gYbhYbW]b[ 'ZfUa Yk cf\_ž'Vi h'`]\_Y'\]g Wci bhYfdUfhgž'\Y'Zci bX'bc'fY`]YZ'Ug'h\Y'7ci fh'UZZ]fa YX'\]g'XYUh\ qYbhYbW'"

 $\label{thm:condition} $$H\YgY`WUgYg`XYa\ cbghfUhY`h\Y`]bhf]WUhY`]bhYfd`Um`cZ``Uk``UbX`A gh]WY`]b`: `cf]XUž`XfUk ]b[``U`gdch`][ \h`cb`\ck``h\Y``Wci fhg`]bhYfdfYh dfYWYX]b[``fi``]b[g`UbX`i d\c`X`h\Y`]bhY[f]hm`cZ'h\Y`^1 X]W]U` dfc\WYgg"`5g`X]gW'gg]cbg`gi fZU\W``UVci h`\ck``h\YgY`XYW]g]cbg`UZZY\h\Vch\``h\Y``]j Yg`cZ'h\cgY`]b\Wf\WYfUhYX`UbX`h\Y`VfcUXYf`\Wca a i b]hmž ]h g`\WYUf`h\Uh`h\Y``Y[U```UbXg\WdY`]b`: `cf]XU`fYa U]bg`Ug`XmbUa ]\WUg`Yj\Yf"$ 

cf`h\cgY`]bhYfYghYX`]b`XY`j ]b[`XYYdYf`]bhc`\ck`h\YgY`fi`]b[g XYj Y`cd`Zi fh\Yf``Y[U``dfYWYXYbhgž'h\Y`]a d`]WUh]cbg`cZ'h\Y`: `cf]XU Gi dfYa Y`7ci fh g`fYWYbh`XYW]g]cbg`cZZYf`f]W\`a UhYf]U``Zcf YI Ua ]bUh]cb"`GhUm`hi bYX`Ug`h\]g`ghcfmi bZc`Xgž`]bj ]h]b[`U```cZi g`hc Yb[U[Y`Wf]h]WU``m`k]h\`ci f`^1 gh]WY`gmghYa "

8 YhU]`g	
Cfh	@U_Y`7cibhmž:`cf]XUžIG5
EiY``Yb	<ul><li>Z`UXYUh\dYbU`hm"gi VghUW_"Wca</li></ul>
	• gi dfYa Y"^i gh]U"Wca

6 Ygi W Yb 'G]Y 'i bg 'Ui Z 'a Y]b!k ]Yb "b Yh