HfU[]W8]gWcj Yfm '%%!MYUf!C`X'7UfYg'Zcf G]V`]b[g']b'8Yd`cfUV`Y'7cbX]h]cbg

5b'%!mYUf!c`X']b'F]j]YfU'6YUW\kUg'ZcibX'WUf]b['Zcf'g]lg]V`]b[g'Ua]X'bY[`YWhž'YUX]b['hc'UffYghg'Zcf'W\]`X YbXUb[YfaYbh"



 $Dc^{M}b[Uhhcf]h]Ygz^{H}gdcbX]b[Uhc^{U}WU^{T}Zfca^{T}UBYdUfha^{T}bhcZ^{T}gdcbX]$

 $\label{thm:cz} $$ 7 \ ''XfYb''UbX': Ua \ ''Yg''fB 7: E']bj Ygh][Uhcfz'fYdcfhYX'h\Uh'a Ubm'cZh\Y'W\] `XfYb''k YfY']b'X]ghfYgg'''Gca Y''k YfY''bcbj YfVU`''UbX'XfYggYXcb`m']b'g\]fhg'cf'X]UdYfg'''H\Y'\ca Y''k Ug'gc'\UnUfXci g'h\Uh''U `Ui bXfm'fcca 'Z]``YX''k]h\'X]fhm'Wch\Yg'dcgYX''Ub''UXX]h]cbU`''Z]fYf]g_z''g]hi UhYX''U`Ufa]b[`m'WcgY''hc''hk c'UWh]j Y''k UhYf\\YUhYfg'''Gh''' : cfh'U``Y[YX`m'`YZh'h\Y'W\]`XfYb''i bXYf'h\Y'WUfY''cZ'h\Y'Y`XYghg]V`]b['k\]`Y'\Y''k Ybh'hc''k cf_']b''* d]hYfz''U'XYW]g]cb'h\Uh'\Ug\cff]Z]YX'a Ubm'`cWU`g''$

FYgdcbgY'UbX'FYdYfW'gg]cbg

 $H\Y'g]hi\ Uh]cb\YgWU\UhYX'ei\]W_`mž'k\]h\Gh": cfh``UhYf'gi\ ffYbXYf]b\[hc\Ui\ h\cf]h]Yg\UZhYf\VY\]b\[`WcbhUWhYX'Vm']bj\ Ygh]\[Uhcfg"'BchUV`mž'\YZUWYX'UXX]h]cbU```Y\[U``hfci V`Ygž'Ug'\Y'k\ Ug'Zci bX'hc'\Uj Y'U gi gdYbXYX'Xf]j\ Yf\ g``]WYbgYž'Ub'ci hghUbX]b\[`k\ UffUbh'Zfca 'A\ Ufh]b\ 7ci bhmž'UbX'k\ Ug'Xf]j\]b\[`Ub'i b\]bgi fYX'j\ Y\]WY'k\]h\'Ub'YI\ d\]fYX hU\["'A\ YUbk\ \]`Yž'K\ U``UWY'fYhi\ fbYX'hc'h\ Y'fYg]XYbWY'Xi\ f]b\[`h\ Ycb\[c\]b\[']bj\ Ygh]\[Uh]cb'UbX'k\ Ug'gi\ VgYei\ Ybh`m'UffYghYX'cb'h\ Y gUa\ Y'W\ Uf\[Yg'Ug'\ Yf'dUfhbYf"$

5 BUh]cbk]XY 7f]g]g

GUX`mž'h\]g'X]ghi fV]b['Yj Ybh'fYZYWhg'U'`Uf[Yf']ggi Y'UZZYWh]b[ZUa]`]Yg'UWfcgg'h\Y'Wci bhfm"'H\Y'BUh]cbU`'7\]`XfYb g'5``]UbWVbchYg'h\Uh']b'&\$&' ž'7\]`X'5Xj cWUWm'7YbhYfg']bj Ygh][UhYX'UghU[[Yf]b['&' *ž*\$%'WUgYg']bj c`j]b['U``Y[Uh]cbg'cZ'W\]`X'UVi gYžk\]W\'YbWca dUggYg'g]hi Uh]cbg'h\Uh'[c'VYmcbX'bY[`YWh'hc']bWi XYjuf]ci g'Zcfa g'cZ'a U`hfYUha Ybh"'5`Ufa]b[`mž'a Ubm']bW]XYbhg'Xcbch'`YUX'hc'X]gWcgi fYgž'W\Uf[Ygž'cf'Wcbj]Wh]cbgž']bX]WUh]b['h\Uh

A U_]b['a UhhYfg'k cfgYž'Wk]`XfYb']b'WUfY'cZhYb'bYYX'UXX]h]cbU`UhhYbh]cb'Zfca 'h\Y'Wca a i b]hm''K\Yh\Yf']b'mci h\'gdcfhgž'WUa dgžcf'fY`][]ci g'gYhh]b[gž'h\YgY'ZfU[]`Y'_]Xg'ZUWY'f]g_g'h\Uh'fYei]fY\WcbghUbh'j][]`UbWY'Zfca 'WUf]b['UXi `hg''CZhYbž'h\cgY'k\c'k ci `X\Ufa 'Wk]`XfYb'gYY_'dcg]h]cbg'h\Uh'cZZYf'h\Ya 'YUgm\UWWYgq gca Yh\]b['k Y'a i gh'U``fYa U]b'a]bXZ ``cZ''

$H\Y F c Y c Z F Y g Y U f W$

 $\pm 0 \text{ ``][\h'cZgi W. ']bW]XYbhgž'cf[Ub]nUh]cbg'`]_Y'h\Y'BUh]cbU``8 UhU 5fW.]j Y'cb'7\]`X'5Vi gY'UbX'BY[`YWh'\Uj Y'VYWca Y']bj U`i UV`Y'' G]bW''%-,, ž'h\]g'fYgci fW''\Ug'ZcghYfYX'gW.c`Uf`m'YI W. Ub[Y Ua cb['fYgYUfW.Yfgž'UWei]f]b['XUhU'hc'VYhhYf'i bXYfghUbX'W.]`X a U`hfYUha Ybh''Gi W. 'YZZcfhg'UfY'Wfi W]U`ž'YgdYW]U``m'Ug'X]gW gg]cbg UVci h'dc`]Wm'dfchYWh]cbg'VYWca Y'Yj Yf'a cfY']a dcfhUbh''K]h\ XUhUgYhg'Uj U]`UV`Y'Zcf'gYWcbXUfm'UbU`mg]g'UbX'Wca a i b]hm fYgci fWYg'`]_Y'bYk g`YhhYfg'hc'_YYd'dYcd`Y']bZcfa YXž'fYgYUfW.Yfg UfY'k cf_]b['\UfX'hc']`i a]bUhY'h\Y'g\UXck g'gi ffci bX]b['W.]`X k Y`ZUfY''$

#b 'h\ Y 'k U_Y 'c Z'h\ Y 'F]j]YfU '6 Y U W\ ']b W]X Y b hž 'c b Y 'a i gh'k c b X Y f.

K \ Uh'a c f Y 'WUb 'V Y 'X c b Y 3 'K \ Y h\ Y f ']h ']g 'h\ f c i [\ 'Wc a a i b]hm

gi dd c f hž 'j][]`Ub WY ž 'c f 'd f c U Wh]j Y 'd c `] W]Y g ž h\ Y f Y g 'g c a Y h\]b ['hc 'V Y

gU]X 'Z c f 'h\ Y 'Wc ``Y Wh]j Y 'f Y gd c b g]V]`]hm 'k Y 'g \ Uf Y 'hc 'd f c h Y Wh'h\ Y 'a c g h

j i `b Y f U V `Y 'Ua c b ['i g" '5 g 'h\ Y '`c W U` 'Wc a a i b]hm 'V Ub X g 'hc [Y h\ Y f 'hc

gi dd c f h'h\ Y g Y 'W\]`X f Y b ž ']h g 'U 'd c][b U b h'f Y a]b X Y f 'h\ Uh'c i f 'Y Z C f h g

WUb 'W\ Ub [Y '`]j Y g c b Y 'W\]`X 'Uh'U 'h]a Y "

8 YhU]`g	
Cfh	'\$'-'5j Ybi Y`₹F]j]YfU'6YUW\ž':`cf]XUž'l G5
EiY``Yb	• Wk ' ("Wca
	k k k "bUh]cbU`WX]`XfYbgU``]UbWY "c
	f[
	k k k "bXUWUb"UWZ"\\g"[cj

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