

## A Y]bY'?fmdhc!9ldcgifY']gh'nia 'YfghYb A U`'[fÒ»Yf'U`g'; c`X

G\Uf\_'HUb\_!GhUf'?Yj ]b C/ Ua d/, &%+/@YUfmž'U`]Ug'A f" K cbXYfZ 'ž\Uh'Ybh\Ø`hžXUgg'Yf'ni a 'YfghYb'A U`'a Y\f ?fmdhc!9l dcb]Yfi b['U`g'; c`X'\Uh"'9f'\cZZhž'gY]bY'?fmdhc! 5``c\_Uh]cb']b XYb'bÀWXghYb'A cbUhYb'Ui Z'+i 'Yf\Ò\Yb'ni \_ObbYbž'i bX'VYhcbh / Ua d/, &&&/\W'gY\Y'\_Y]bY'G]hi Uh]cbž ]b XYf'?fmdhc'Ya U`g'j YfgWXk]bXYb'k]fX"/ Ua d/, &&\$/?Yj ]b C/ Ua d/, &%+/@YUfm`\Uh'Yhnh'a Y\f'?fmdhc'U`g'; c`X ?Yj ]b C/ Ua d/, &%+/@YUfm`\Uh'VY\_Ubbh'[Y[YVYbž'XUgg gY]b'DcfhZc`]c'Yhnh'Yfgha U`g'ghÀf\_Yf']b'?fmdhck À\fi b[ ]bj Ygh]Yfh']gh'U`g']b'; c`X"'9f'hk]hhYfhY'Ua 'GUa ghU[.'Ni a YfghYb'A U`']gh'a Y]b'?fmdhc!9l dcgi fY'[fÒ» Yf'U`g'; c`X"'GY]b?ca a YbhUf'Zc`[hY'gY]bYa '\bhYfj]Yk 'a ]h'8Ub]Y`U'7Ua VcbY j cb'GhUbgVYffm'FYgYUfWXž'XUg'Ua ': fY]hU['j YfÒZZYbh`]WXh ki fXY"'<Yff'/ Ua d\Y``]d/

G\Uf\_'HUb\_!GhUf'?Yj]b`C @YUfmž'U`]Ug`A f"`K cbXYfZi`ž'\Uh Ybh\Ø``hž'XUgg`Yf`ni a 'YfghYb`A U``a Y\f'?fmdhc! 9I dcb]Yfi b['U`g'; c`X'\Uh"'9f'\cZZhž'gY]bY'?fmdhc! 5``c\_Uh]cb`]b`XYb`bÀW\ghYb`A cbUhYb`Ui Z'+ı 'Yf\Ò\Yb`ni \_ÒbbYbž'i bX`VYhcbh.' =\W\'gY\Y'\_Y]bY`G]hi Uh]cbž']b`XYf ?fmdhc'Ya U`g'j YfgW\k]bXYb`k]fX"

## ?Yj]b'C @YUfm'\Uh'^Yhnh'a Y\f'?fmdhc'U`g; c`X

?Yj ]b 'C @YUfm'\Uh'VY\_Ubbh'[Y[YVYbž'XUgg'gY]b 'DcfhZc`]c 'Yhnh Yfgha U`g'ghÀf\_Yf']b'?fmdhck À\fi b[']bj Ygh]Yfh']gh'U`g']b'; c`X"'9f hk ]hhYfhY'Ua 'GUa ghU[.

> Ni a 'YfghYb'A U`']gh'a Y]b'?fmdhc!9ldcgifY'[fÒ»Yf'U`g ; c`X"

8Yf'G\Uf\_'HUb\_!GhUf'VYa Yf\_hY.

→W. ZfYi Y a ]W. ž YXYa 'ni ni \ ÒfYbž UVYf Yg 'hi h'a ]f ``Y]Xž ]W. gh]a a Y 'b]W. h'ni ž k Ybb 'X]Y '5bhk cfh ``Ui hYhž XUgg 'G]Y '\_Y]bY ?fmdhck À\fi b[Yb `\UVYb"

## 8]Y =XYYž XUgg FY[]Yfi b[Yb 6]hWc]b ]``Y[U` a UW Ybž ]gh k Y]h \Yf[Y\c`h

C @YUfm'hY]'hY'Ui WX'gY]bY'5bg]WXh'XUfØVYfž'cV'FY[]Yfi b[Yb?fmdhck À\fi b[Yb'j YfV]YhYb'\_ObbhYb"'I bhYf'6Yfi Zi b['Ui Z'X]Y?ca a YbhUfY'XYg'; fØbXYfg'j cb'6f]X[Yk UhYf'5ggcW]UhYgž'FUm 8U`]cž'X]Y'VYgU[hYbž'XUgg'FY[]Yfi b[Yb'\_ObbYb'hOhYb'6]hWc]bž k Ybb'Yg'ni 'YfZc`[fY]WX'k]fXž'k i fXY'Yf'[YZfU[h'?Ubb'6]hWc]b [Yghcddh'k YfXYb' 'k YfXYb'X]Y'FY[]Yfi b[Yb'[Yk]bbYb3

<Yff'K cbXYfZ ``Ubhk cfhYhY.' 9g']gh'Y]bY'[ fc > Ufh][ Y'8 YVUhhY"'8]Y
DfcXi \_h]j ]h\(\text{A}\)fib[ Yb\(\text{Z}\)X]Y'Xi fW\(\text{Z}\)fmdhck \(\text{A}\) fi b[ Yb'i bX'X]Y
[ YgUa hY'\(\delta\)ZfUghfi \_hi f'XYg'XYnYbhfU`Yb': ]bUbnk YgYbg'fKYZ]Ł
j YfZØ[ VUf'g]bX\(\text{Z}'g]bX''YXcW\(\text{Z}\)Y\(\text{Z}\)fFY[ ]Yfi b[ Yb'ni
]bhYfYggUbh"'\(\delta\)W'[ `Ui VY'b]W\(\text{h}\)XXUgg'X]Y'I G!FY[ ]Yfi b[ 'VY]'XYf
9bhk ]\(\text{W}\)`i b[ 'bYi Yf'NU\`i b[ ggmghYa Y'i bX'Cb`]bY!8]YbghY
ni f\(\text{Ø}\)W\_\(\text{Z}\)U``Yb'k ]``\(\text{Z}\)X]Y'Xi fW\(\text{X}\)X]Y'9bhk ]\(\text{W}\)`i b[ 'U\``Yf'5fhYb'j cb
nYbhfU`]g]YfhYb'i bX'XYnYbhfU`]g]YfhYb': ]bUbngmghYa Yb
j cfUb[ Yhf]YVYb'k YfXYb" '9f'ZØ\fhY'Ui g.

#W. 'gY\Y'U`gc'\_Y]bY'G]hi Uh]cbž']b'XYf'? fmdhc'Ya U`g
j YfgWkk]bXYb'k]fX' '8]Y'#XYYŽ'XUgg'FY[]Yfi b[Yb'Ui Z'XYf
[UbnYb'K Y`h'g]Wk'gmbWkfcb]g]YfYb'i bX'6]hWc]b']`Y[U`
a UWkYbž']gh'a Y]bYf'AY]bi b['bUWk'kY]h'\Yf[Y\c`h"

7fmdhc gYhnhib]Wk hia Y\fibi fi'Ui ZiXYb 'DfY]gij cb '6]hWc]b"'9gi[]Vhigc j ]Y`Y 'UbXYfY 'A O[`]Wk\_Y]hYb 'ni ']bj Ygh]YfYbži]bgVYgcbXYfY ']b 6`cW\_Wk U]b!; Y`Y[Yb\Y]hYbžiGc`UbUži9h\YfYi a '' 'gcij]Y`Y j YfgWk]YXYbY '@Yj Y``Y]bg'i bX 'XUbb 'g]bX '@Yj Y``nk Y]'bUhØf`]Wk 'X]Y 8Yf]j UhYžiX]Y 'Ui Zi9h\YfYi a 'i bX'Gc`UbU'i bX 'U``'X]Y 'UbXYfYb [Y`Y[h'k YfXYb' 'B: Hg'Obcb!Zi b[]V`Y'hc\_YbgQg]bX'OU`gcQk]fX gY\figWk bY``'k UWkgYb žiZØ[hY'Yf'\]bni "

## 6]hWc]b'jg"; c`X

 $\label{eq:conditional_condition} Ni ~gY]bYf^; ~c`X]bj Ygh]h]cb~gU[~hY~Yf.~~&W.~~UVY~)~i~~]b~; ~c`X~~~~]WX \\ k~YfXY~a~Y]b~; ~c`X~VY~U`hYb"~&W.~gY~Y~_Y]bYb~; ~fi~bXž~Yg~ni~~\\ j~Yf\_Ui~ZYb"$ 

 $C @Y U fm'k i fXY'[YZfU[hž'cV'Yf'a]h'XYa 'Jcfg]hnYbXYb'jcb'J]f[]b; U`UWh]W7 \ Uh 'DU`] \ Ud]h]mJ'Y]bj YfghUbXYb'gY]ž'XYf'_Øfn`]WX gU[hYž'6]hWc]b' \Uh'c \ZZ]n]Y``'; c`X'YfgYhnh''$ 

9f'Ubhk cfhYhY.' BY]b"'B]Wkhg'k]fX'; c`X'YfgYhnYb"'; c`X']gh'gY]h &\$\$\$'\\JYb'VYk\A\fh"'8]Y'F\Oa\Yf'\UVYb'Yg'[\Y\cfhYh"'\\XYb\_Yž\k\Ug'd\Ugg]Yfhž']ghž'XUgg'; c`X'\U`g'\=a\acV]`]Y'Y]bY'5b`\U[\Y\_\UggY']b\DcfhZc`]cg'V`Y]VYb'k]fXž'k]Y'a\Y]bYa\i\bX'\UbXYfYb"

±b '6Yni ['Ui Z'X]Y '[YgUa hY '?fmdhc]bXi ghf]Y 'gW\`cgg'C @YUfm

K Ug`\U`hYb`G]Y`j cb`?Yj ]b`C @YUfmg`?ca a YbhUfYb3 @UggYb`G]Y`Yg`i bg`]a `?ca a YbhUfVYfY]W\`i bhYb`k ]ggYb"

6]`XbUWk Y]gY. G\i hhYfghcW\_z'D]| UVUmz'K ]\_]'7ca a cbg

fZ bWh]cbfXžgž]XŁojUf~gžZg1 X"[Yh9`Ya Ybhg6mHU[BUa YfgŁO\$Q/]ZfK"[Yh9`Ya Ybh6m=Xf]XŁŁfYhi fb/~g1 X"WfYUhY9`Ya YbhfgŁ/~g"]X1 ]X/~g"gfW1 ~\hhdg.##WcbbYWh"ZUWYVcc\_"bYh#YbSl G#gX\_"~g, I ZVa `1 %/j Yfg]cb1j' "&~/Z~g"dUfYbhBcXY"]bgYfh6YZcfYfl~gžZ~gŁ/~qfXcWia YbhžfgWf]dhfz~fZUWYVcc\_!~ggX\_fŁŁ/

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. '\_fmd hc!b Yk g"Uh