

## ? UbUf]gWX Y '=bgY`b. '8]Y 'Bi a a Yf'9]bg'XYf Yi fcdÀ]gWX Yb'FY]gYn]Y`Y'&\$&' °

9fZU\fYb'G]Y'X]Y'VY`]YVhYghYb'FY]gYn]Y`Y']b'XYf'9I'&\$&' ž ]b\_`i g]j Y'? UbUfYbž'? fcUh]Yb'i bX'? UhU`cb]Yb"' $\Rightarrow$ XYU`Y'H]ddg Z $\emptyset$ f' $\Rightarrow$ fYb'bÀWXghYb'I f`Ui V°



; fUb '7 Ub Uf]Už'Gd Ub]Yb'!'8]Y'? Ub Uf]gWX Yb' \(\phi\gY\) YfZfYi Yb'g]WX i b[YVfc WX Yb Yf '6Y']Y Vh\Y]h'i b X'k i fXYb']a '\(\phi\)\\\f'\&\\$&' 'ni a [YZfU[hYghYb'FY]gYn]Y'']b'XYf'9I "'@Ui h'gb"Uh'k i fXYb'Ui Z'XYb \(\phi\gY\)b']bg[YgUa h'fi b X'- \* 'A]'']cbYb', VYfbUWXhi b[Yb'[YnÀ\'hž k Ug'Yhk U'\&\\*\&"\\$\\$'; \(\phi\ghY\)b'dfc'HU['Yb hgdf]WXh'''6YgcbXYfg \\YfUi gfU[YbX']gh'HYbYf]ZZUŽ'X]Y'VY`]YVhYghY'\(\phi\gY\)'XYf'? UbUfYbŽ'X]Y a]h']\\fYb'hfUi a\UZhYb'Ghf\(\phi\bX\)Yb'i bX'j]Y'Z\(\phi\h)[Yb'\fYb'X]Y'\(\phi\gY\)h''

8]Y'\_fcUh]gWXY'5Xf]U\_ØghY'i bX'?UhU`cb]Yb'Zc`[Yb'Ui Z'XYb'D`ÀhnYb
nkY]'i bX'XfY]"'<]YfVY]'j YfnY]WXbYhY'X]Y'\_fcUh]gWXY'?ØghY', +
A]``]cbYb', VYfbUWXhi b[YbZ'kÀ\fYbX'?UhU`cb]Yb'Ui Z']bg[YgUa h, \*'A]``]cbYb'\_Ua "'=b'6UfWY`cbUZ'XYf'<Ui dhghUXh'?UhU`cb]YbgZ

YbhZU``Yb`U``Y]b`&\$`A]``]cbYb`<chY`ØVYfbUW\hi b[Yb"`8]Yg`\Uh
YXcW\`Ui W\`ni `DfchYghYb`[Y[Yb`XYb`A UggYbhci f]ga i g`[YZØ\fhž
k Ug`X]Y`FY[]Yfi b[`VYk c[ž`X]Y`Hci f]ghYbUV[UVY`]a `A Àfn`Ui Z`%)
9i fc`dfc`BUW\h`ni `Yf\Ò\Yb"

## I B 9G7C!K Y`hYfVY'i bX'\_i `hi fY``Y'GWX ÀhnY

B]Whibi fix]Y 5bnU\`XYfi, VYfbUWhi b[Ybia UWhix]Y? UbUf]gWXYb ≠ gY`b VYgcbXYfgžigcbXYfbiUi WX XYfYbifY]WXYgi\_i `hi fY``Ygi9fVY" GciVYf]WXhYhik Y`hYfVYhci f"XY'j cbiXYbi\]ghcf]gWXYbiGhÀhhYbik ]Y F]gWci7U£Xcii bXiXYbi<Y]`][Ybi6Yf[YbžiX]Yig]WXi]a ibcfXk Ygh`]WXYb J]YfhY`j cbi; fUbi7UbUf]UiVYZ]bXYb"8]YgYiFY[]cbiV]YhYhY]bYb Y]bn][Ufh][Ybi9]bV`]W\_i]biX]Y; YgWX]WXhYiXYfi6YfVYfžiX]YigY]hiXYa ("ixJ\f\ibXYfhiUi ZiXYbi?UbUf]gWXYbi≠bgY`big]YXY`hYb"

8]Y @UbXgWX UZh'X]YgYf'FY[]cb']gh'ni XYa 'UhYa VYfUi VYbXž
[YdfÀ[h'j cb'ghY]`Yb'?`]ddYbž'HÀ`Yfb'i bX'a Uf\_UbhYb'9]bnY`ZY`gYb"
8Yf'Fcei Y': UbYei Y'[]`h'U`g'X]Y'\ÒWXghY'?`]ddY'9i fcdUg'a ]h'%"\$&+
a ž'k À\fYbX'Fcei Y'Bi V`c'a ]h'%", %' 'a 'YXYb'BUhi f`]YV\UVYf
j YfnUi VYfh"'5i Z'XYa '<cW\d`UhYUi 'j cb'HUa UXUVU'Z]bXYb'g]W\
Yf\U`hYbY'?]YZYfbk À`XYfž'X]Y'Y]b'VYY]bXfi W\_YbXYg'BUhi ffYgYfj Uh
XUfghY``Yb"

## < ]ghcf]gWX Y '? Ob][ fY]WX Y 'i b X '@Y V Y b g k Y]gY</pre>

8]Y?UbUf]gWXYb \*\pagy`b k UfYb Y]bgh'< Y]a Uhink Y]Yf'? Ob][ fY]WXYž a ]h'HY`XY i bX; ½XUf'U`g'< Ui dhghÀXhYb "8]YgY GhUbXcfhY k i fXYb nk ]gWXYb '%( +, i bX'%( , ' 'j cb '\_Ugh]``]gWXYb 'Hfi ddYb 'YfcVYfh" 8 Ug I B 9G7C!K Y`hYfVY'j cb 'F]gWc '7 U£Xc '`]Y[ h']a 'Y\Ya U`][ Yb k Ygh`]WXYb '? Ob][ fY]WX 'j cb '; ½XUf'i bX 'k Y]gh'Ui Z'X]Y 'ZfØ\YfY @YVYbgk Y]gY 'XYf'`c\_U`Yb '6Yj O`\_Yfi b[ '\]b" 8]Y '6Yk c\bYf'gWXi ZYb ]b'XYb': Y`gk ÀbXYb'K c\b\O\`Ybž'; YhfY]XYgdY]WXYf'i bX N]ghYfbYbž'X]Y 'V]g'\Yi hY`NYi [ b]ggY'U`hYb'@YVYbg'XUfghY``Yb"

⇒ 'XYf'FY[]cb'5fhYbUfU'\_ÒbbYb'6Ygi W\Yf'Y]b

⇒ Zcfa Uh]cbgnYbhfi a 'YbhXYW\_Yb'i bX'gc[Uf']b'VYk c\bhYb'< Ò\`Yb

ØVYfbUW\hYbž'X]Y'U`g'I bhYf\_i bZh'a ]YhVUf'g]bX"'8]YgY'Y]bn][Ufh][Y

9fZU\fi b['Yfa Ò[`]W\h'Y]bYb'X]fY\_hYb'?cbhU\_h'ni f'ZUgn]b]YfYbXYb
</p>

; YgWX]WX.hY'i bX'?i `hi f'XYf'?UbUf]gWXYb' \deltagY`b'i bX'`Àggh'X]Y 6Ygi WXYf'X]Y'GWX.Ob\Y]h'i bX'J]Y`ZU`h'X]YgYf'VYa Yf\_Ybgk YfhYb FY[]cb'\Ui hbU\'Yf`YVYb"

8 YhU]`g	
Cfh	; fUb 7 Ub Uf]Už Gd Ub ]Y b
EiY``Yb	• k k k "gb"Uh
	<ul><li>k k k "k Y`hYfVYhci f"XY</li></ul>

6Ygi WXYb G]Y i bg Ui Z Y]bY!fY]gY "XY