

8]Y'HYWX!9`]hY'[fØbXYh'9fYVcf.'8]Y'bYiY 6Ub_'ZØf'?fmdhc'ibX'=bbcjUh]cb°

5a '' "\$+"&\$&) '[fØbXYb 'HYWX!A]``]UfXÀfY 'X]Y '8][]hU`VUb_ 9fYVcf']b 'C \]cž'i a 'X]Y '@ØW_Y 'bUWX 'XYf'GJ 6!D`Y]hY 'ni gWX `]Y» Yb"



7c`i a Vi gž'C \]cž'I G5'!'8]Y'6Ub_Yb`UbXgW\UZh']gh']a 'I a Vfi W\ž i bX'XUg'a Yf_h'a Ub'Ua 'ZfYi X][Yb'K]fVY`i a 'X]Y'; fØbXi b['XYf bYi Yb'6Ub_'bUa Ybg'9fYVcf"'BUW\'XYa 'XfUa Uh]gW\Yb Ni gUa a YbVfi W\'XYf'G]`]Wcb'J U``Ym'6Ub_'fGJ 6Ł']a 'A Àfn'&\$&' ž Y]bYa 'XYf'[fÒ» hYb'6Ub_Yb_c``Udg']b'XYb'I G5'gY]h'XYf'@Y\a Ub! D`Y]hY'&\$\$, ž\UVYb'Y]b][Y'XYf'dfca]bYbhYghYb'HYW\!A]``]UfXÀfY XYf'6fUbW\Y'VYgW\`cggYbž'X]Y'@W_Y'ni 'gW\`]Y» Yb"'9fYVcf'k]fX j cb'; fÒ» Yb'k]Y'DYhYf'H\]Y'ž'DU'a Yf'@ W_Ymi bX' \times Y'@cbgXU'Y']bg @YVYb'[Yfi ZYb"'8]Y'6Ub_'k]fX'g]W\'Ui Z'Y]bY'X][]hU'Yž ni _i bZhgcf]Ybh]YfhY'5i gf]W\hi b['_cbnYbhf]YfYb'i bX'gdYn]Y```X]Y 6YXØfZb]ggY'j cb'GhUfhi d!I bhYfbY\a Yb'i bX' \oplus j YghcfYb']a 6YfY]W\'HYW\bc`c[]Yž']bgVYgcbXYfY']b'XYb'GY_hcfYb'? Øbgh`]W\Y\\ \oplus hY``][Ybn'f? \pm ž'? fmdhck À\fi b[Ybž'JYfhY]X][i b['i bX': Yfh][i b[

8]Y; fØbXi b['j cb'9fYVcf'ghY\h'b]Wk h'bi f'ZØf'XYb'K]``Ybž'XYb Xi fWk'X]Y'GJ 6'j Yfi fgUWk hYb'GWk UXYb'ni 'fYdUf]YfYbž'gcbXYfb gma Vc`]g]Yfh'Ui Wk'XYb'5i ZVfi Wk'Y]bYf'bYi Yb'ŸfU']b'XYf :]bUbnX]Ybgh`Y]ghi b[gVfUbWkY"'K]Y'h' b'VYf]Wk hYhž'd`Ubh'9fYVcf gY]bY'6Ug]g']b'7c`i a Vi gž'C\]cži bX'k]fX'ni gÀhn`]Wk'Y]bY 8YdYbXUbWf']b'BYk'Mcf_'YfÒZZbYb"'8]YgYg'ghfUhY[]gWkY'GYhh]b[_\ObbhY'\Y`ZYbž'X]Y'j cb'@ W_Ym'Ub[Y_ØbX][hY'[fc»Y:Yfh][i b[gUb`U[Y']b'C\]c'a]h'ØVYf'("\$\$\$'bYi Yb'5fVY]hgd`ÀhnYb ni 'i bhYfghØhnYb"

5 VY f'k Ufi a '[Y f U X Y ' X Y f' B U a Y '9 f Y V c f 3 '9 g'] g h 'Y] b 'J Y f k Y] g' Ui Z' X Y b 9] b g Ua Y b '6 Y f ['Ui g' " F " F " 'Hc'] Y b g I b] j Y f gi a 'Y] b 'D `Uhnž' X Y f g c k c \ `'ZØ f' F Y] W hi a 'U` g' Ui W 'ZØ f' < Y f Ui g Z c f X Y f i b [Y b 'g h Y \ h '' 8 Y f k] W h] [g h Y '5 g d Y _ h 'X] Y g Y f '6 U b _ '] g h 'Y X c W ž' X U g g' g] Y' j c b 'H Y W ! ; f O * Y b '[Y Y] h Y h 'k] f X ž' X] Y' k] g g Y b ž' k U g' X] Y' 6 f U b W Y' V f Ui W h '' \$ Y @ c b g X U 'Y' k] f X 'U` g' < Ui d h] b j Y g h c f' [Y b U b b h ž' k À \ f Y b X' C k Y b F U d U d c f h' i b X' \$ J W c V' <] f g \ a U b 'U` g' 7 c ! 7 9 C g' U [] Y f Y b ž' k c V Y] Y h h h Y f Y f V Y f Y] h g' U` g' 6 Y f U h Y f' X Y f' G h U V` Y W c] b! :] f a U '7] f W Y' h À h] [k U f'' 8 U g' n Y] [h ž' X U g g' 9 f Y V c f' b] W h' b i f' k Y] * ž' k] Y' a U b '6 U b _ Y b ZØ \ f h ž' g c b X Y f b 'U i W ž' k] Y' a U b 'g] W '] b 'X Y f' c Zh 'g h Ø f a] g W Y b 'K Y` h X Y f' ? f m d h c k À \ f i b [Y b 'V Y \ U i d h Y h''

9]bY'X][]hU`Y'6Ub_'a]h'[fc>Yb'D`ÀbYb

8 UgʻA cXY``j cbʻ9fYVcfʻk]fX'j c``Yfʻ±bbcj Uh]cbg[Y]ghʻi bX`X][]hU`Yf 5a V]h]cbYbʻgY]b" 8]Yʻ6Ub_'d`UbhžʻGhUV`YWc]bgʻni ']bhY[f]YfYbʻi bX a ÒW\hY`XUgʻUa 'gh\f_ghYbʻfY[i `]YfhYʻI bhYfbY\a YbʻZØfʻGhUV`YWc]b! HfUbgU_h]cbYbʻk YfXYb"'GhUV`YWc]bgʻg]bX`Y]bYʻUi ZghfYVYbXY K \A\fi b[\z'X]YʻUbʻghUV]`YʻJYfa \O[Ybgk YfhYʻk]YʻXYbʻI G!8c``Uf [Y_cddY`hʻg]bX"'8]YgYʻgdYn]Y``Ybʻ?fmdhck \A\fi b[YbʻV]YhYbʻY]bY ghUV]`YfY`K Yfh\U`hi b['i bX`g]bX`VYgcbXYfgʻVY]:]bhYW\gʻi bX hfUX]h]cbY``YfYb':]bUbn]bgh]hi h]cbYbʻ\cW\ja '?i fg"'I G5 'HcXUm VYhcbhž'XUggʻ9fYVcfʻX]Yʻ@ØW_YʻZØ``Ybʻgc``žX]Y`XYf Ni gUa a YbVfi W\XXYfʻGJ6`\]bhYf`UggYb`\Uhžʻi bX`XUa]h hYW\bc`c[]Ycf]Ybh]YfhYbʻGhUfhi dgʻnY][Ybʻk]``ž'XUggʻg]Y`k]YXYf Ui ZUha Ybʻ_ObbYb"

K UgʻVYXYi hYhʻXUgʻZØfʻX]YʻNi _i bZhʻXYfʻ6Ub_Yb3ʻK À\fYbX hfUX]h]cbYʻ`Yʻ6Ub_YbʻcZhʻGWk]Yf][_Y]hYbʻ\UVYbž'a]hʻXYfʻfUgUbhYb 9bhk]W_`i b['X][]hU`YfʻJ Yfa Ò[Ybgk YfhYʻGWkf]hhʻni '\U`hYbž d`Ub]YfYbʻD`UmYfʻk]Yʻ9fYVcfʻY]bYbʻ[UbnʻUbXYfYbʻ5bgUhn" \Rightarrow a Yfa Y\f`:]fa YbʻVY[f]ZZYbžʻXUggʻX]Yʻ8 YnYbhfU`]g]Yfi b[žʻX]YʻXi fWk 6`cW_WkU]b!HYWkbc`c[]Ybʻk]Yʻ6]hWc]bʻi bXʻ9h\YfYi a 'Yfa Ò[`]Wkh k]fXžʻbUWk\U`h]['gY]bʻ_Ubb"'5b[Yg]WkhgʻghY][YbXYfʻ \Rightarrow bj Ygh]h]cbYb]bʻ8Y:]!5bk YbXi b[YbžX]YʻUi Zʻ9h\YfYi a 'VUg]YfYbž']ghʻX]Y Bchk YbX][_Y]hʻY]bYfʻUbdUggi b[gZÀ\][Ybʻi bXʻa cXYfbYb 6Ub_dfUI]gʻ_`Uf"ʻ9]bYʻI a ZfU[YʻnY][hYžʻXUggʻ9bXYʻ&\$&\$`ØVYfʻ%-A]``]UfXYbʻI G!8c``Ufʻ]bʻ8Y:]!5ddgʻ]bj Ygh]Yfh`k i fXYbž'Y]bʻHfYbXž XYfʻUi Wkʻ9fhfU['j Yfqdf]Wkh"

8]Y'<YfUi gZcfXYfi b['ZØf'Yi fcdÀ]gW\Y 6Ub_Yb

; YfUXY ZØfYi fcdÀ]gWXY 6Ub_Yb _ObbhY X]YgY 9bhk]W_i b[Y]bY a Ugg]j Y < YfUi gZcfXYfi b[XUfghY``Ybžk]Y Yg]b K < I XUf[Y`Y[h k]fX" K À\fYbX I G!I bhYfbY\a Yb k]Y :]XY`]hmi bX D A cf[Ub VYfY]hg j cfdfYgWX Ybža ØggYb Yi fcdÀ]gWXY 6Ub_Yb ``YfbYbžg]WX]b XYf X][]hU`Yb @UbXgWX UZh ni VY\Ui dhYb"?ccdYfUh]cbYb a]h ?fmdhc!:]bhY WX g g]bX i bYf Àgg`]WX ži a `]a `K YhhVYk YfV b]WXh]bg <]bhYfhfYZZYb ni `[YfUhYb" A]h XYf VYj cfghY\YbXYb 9I !F]WXh`]b]Y A Uf_Yhg]b '7fmdhc '5ggYhg `fA]75½ X]Y X][]hU`Y J Yfa Ò[Ybgk YfhYfY[i `]YfYb 'gc ``ž _ObbhY 'X]Y `NY]h 'ZØf Y]bYb I a Vfi WX [Y_ca a Yb gY]b"

±g[YgUa h'\Uh'XYf'Z]bUbn]Y``Y'K YW_fi Zz'XYb'X]Y'D`Y]hY'XYf'GJ 6
Ui g[Y`Ògh'\Uhz'ni f'; fØbXi b['j cb'9fYVcf'[YZØ\fhz'XUg'Y]b'Gma Vc`
ZØf'X]Y'BYi Ui gf]W\hi b['XYf'6Ub_Ybk Y`h'gY]b'_ÒbbhY"A]h']\fYa
]bbcj Uh]j Yb'5bgUhn'i bX'XYf'gc`]XYb': Ø\fi b['Xi fW\'Y]b][Y'XYf
VYXYi hYbXghYb'? ÒdZY'XYf'HYW\!6fUbW\Y'_ÒbbhY'9fYVcf'b]W\h'bi f
XYb'K Y['ZØf'bUW\\U`h][Y':]bUbnYb'YVbYbz'gcbXYfb'Ui W'XYb
< YfUi gZcfXYfi b[Yb'XYf'U_hi Y``Yb'A Uf_hg]hi Uh]cb'VY[Y[bYb"
6`Y]Vh'UVni k UfhYbz'k Y`W\Y'=a di `gY'j cb'X]YgYf'bYi Yb'6Ub_
Ui g[Y\Yb'k YfXYb°</pre>

8 YhU]`g	
Cfh	7c`i a Vi gž'C\]cž'l G5
EiY``Yb	• h' b"XY
	• k k k "i gUhc X Um"Wca
	• k k k "k \i "YXi

6Ygi WXYb'G]Y'i bg'Ui Z'k ca, +"XY