

A YfW UbX]gY ZØf < cW gW i `Yb. =XYbh]Z]_Uh]cb i bX 9]bbU\a Yei Y``Y]b 6Yf`]b

9bhXYW_Yb^G]Yžk]Y^dYfgcbU^]g]YfhY^A YfWXUbX]gY!5fh]_Y^ZØf I b]j Yfg]hÀhYb^XUg^K]f!; YZØ\^`ghÀf_Ybž^X]Y
5i > Ybk U\fbY\a i b['j YfVYggYfb^i bX^Y]bY^ni gÀhn^]WXY
9]bbU\a Yei Y^YgWXUZZYb"'9fZU\fYb^G]Y^a Y\f^ØVYf
\cWXkYfh][Y^HYI h]^]Yb^a]h^8fi W_i bX^Gh]W_i]a ^7cfdcfUhY
8 Yg][b^i bX^XYfYb^j]Y^ZÀ^h][Y^9]bgUhna Ò[^]WX_Y]hYb^U^g
9f]bbYfi b[gghØW_Yž^5fVY]hg_Y]Xi b['i bX^a Y\f"^6Ygi WXYb
G]Y^i bgYfY^YfZU\fYbY^HYI h]^Xfi W_YfY]^]b^6Yf^]b^ZØf
|bX]j]Xi Y^Y^@Òqi b[Yb^



HYI h]`]Ybž'X]Y`ghc`n`XUg`@c[c`i bX`X]Y`: UfVYb`XYf`I b]j Yfg]hÀh
hfU[Yb` `XUg`]gh`b]W\h`bi f`AcXYž'gcbXYfb`Y]b`ghUf_Yg`GhUhYaYbh°
CV`]b`XYf`AYbgUž'Ui Z'XYa`7Uadi g`cXYf`VY]`YXYa`UbXYfYb
5b`Ugg. `AYfW\UbX]gY`]a`I b]!8Yg][b``Àggh`Ghi X]YfYbXY`HY]``Y]bYf
; YaY]bgW\UZh`ZØ\`Yb`i bX`nY][h`YXYaž'XUgg`g]Y`ghc`n`Ui Z']\fY
<cW\gW\i`Y`g]bX°

± Y]bYf'K Y`hž'X]Y'gWXbY```YV]['i bX'k YhhVYk YfVg]bhYbg]j ']ghž'gd]Y`h X]Y' = XYbh]Z]_Uh]cb'a]h'Y]bYa 'Cfh'Y]bY'Ybcfa Y'Fc``Y''8Yf'K Y['ni a 5VgWX`i gg']gh'Y]bY'VYa Yf_Ybgk YfhY'@Y]ghi b[ž'i bX'b]WXhg'XfØW_h XUg'VYggYf'Ui g'U`g'XUg'HfU[Yb'j cb'ei U`]hUh]j '\cWXk Yfh][YbHYI h]`]Ybž'X]Y']bX]j]Xi Y```VYXfi W_h'cXYf'VYgh]W_h'k i fXYb'' = b'6Yf`]bghY\Yb'YfZU\fYbY'DfcZ]g'j cb'a UXY'VYfY]hž'i a 'X]YgY'_fYUh]j Yb = XYYb']b'X]Y'FYU`]hÀh'i a ni gYhnYb'i bX'gc'Y]b'V`Y]VYbXYg 5bXYb_Yb'ni 'gWXUZZYb''

9]b A AW h][Yg A Uf_Yh]b[!Hcc`

 $8]Y T b]j Yfg]hAhYb ``UVYb Yf_Ubbhž XUgg X]YgY 'dYfgcbU`]g]YfhYb HYI h]`]Yb 'k Y]h'a Y\f'g]bX `U`g bi f'6Y_`Y]Xi b["'G]Y 'g]bX`]a k U\fghYb 'G]bbY 'XYg 'K cfhYg 'K YfVYhfA[Yf 'A]h'WYj YfYa HYI h]`Xfi W_'cXYf 'ZY]bYf'6Ygh]W_i b['k]fX 'XUg '7 cfdcfUhY '8 Yg][b ni f'dYfZY_hYb 'K YfVi b["'8]YgY '? `Y]Xi b['hfA[h'X]Y '6chgWk UZh'X]fY_h]b 'X]Y '^2 ZZYbh`]Wk_Y]hž 'k c'g]Y 'j cb'dchYbn]Y ``Yb'bYi Yb'Ghi X]YfYbXYb i bX 'UbXYfYb '\DhYfYgg]YfhYb 'k U\f[Ybca a Yb'k]fX"'8Yf'7Ua di g k]fX 'gc'ni f'6Ø\bY 'XYf'A Uf_Y' 'Y]b'WYj YfYf'GWk UWk ni [ž'i a 'X]Y 6Y_Ubbh\Y]h'ni 'ghY][Yfb'$

8 UfØVYf`\]bUi g`YffY]W\Yb`X]Y`I b]j Yfg]hÀhYb`a]h`]\fYf
A Uf_Yb]XYbh]hÀh`Y]bY`J]Y`nU\``j cb`N]Y`[fi ddYbž`Y]bgW\`]Y»`]W\`XYf
5V]hi f]YbhYbž`X]Y`cZha U`g`_i fn`j cf`XYb`k]W\h][ghYb
9bhgW\Y]Xi b[Yb`]\fYg`@YVYbg`ghY\Yb` `XYf`K U\``]\fYf
<cW\gW\i `Y°

9f]bbYfib[YbZØfX]Y9k][Y]h

: Øfij]Y`Yig]bXiX]YiJU\fYiUbiXYfil b]j Yfg]hÀhii bj Yf[Ygg`]WXY

5i [YbV`]W_Yi]a i@YVYb"A YfWXUbX]gYik]fXib]WXhibi fiZØfiXYb
U_hi Y``YbiGhi X]Yb[Ub[iVYXYi hYbXžigcbXYfbiUi WXiU`g
k i bXYfgWX ObYgi9f]bbYfi b[gghØW_iZØfiX]Yi5Vgc`j YbhYbii bX

9\Ya U`][Yb"'K YbbiY\Ya U`][YiGhi XYbhYbini fØW__Y\fYbžii a i]\fY

5`a UiA UhYfini iVYgi WXYbži]ghiXUgiGhØW_iA YfWXžiXUgig]YiYfk YfVYbžii a Y\fiU`gibi fiY]bi5bXYb_Ybii Ygi]ghiY]biHY]`i]\fYfi; YgWX]WXhYii

5i WXi; A`ghYiXYfil b]j Yfg]hAhia OWXhYbicZhiYhk Ugia]hibUWXik UgigY

 $8 c W 'b] W h'ni `Yhnh'n A \ `h'Ui W 'X] Y 'E i U`] h A h' `C V 'A Y f W Ub X] g Y \bar z \\ 5 f V Y] h g_ `Y] Xi b ['c X Y f'; Y g W Y b_ Y z X] Y 'H Y I h]`] Y b 'a Øgg Y b 'gc k c \ ``] b C d h]_ 'U `g'Ui W '] b '< U`h V U f_ Y] h'Ø V Y f n Y i [Y b " a U X Y '] b '6 Y f`] b 'di b_h Y h \] Y f' a] h'Y] b Y a 'i a Z U g g Y b X Y b '5 b [Y V c h z X U g' b] W h' b i f 'Y f g h_ `U g g] [Y 8 f i W_h Y W b]_ Y b 'i a Z U g g h z g c b X Y f b 'U i W 'i a k Y `h Z f Y i b X`] W Y 'i b X Z U] f' d f c X i n] Y f h Y '5 f h]_ Y ` 'Y '] b 'k] W h] [Y f' D `i g d i b_ h' Z Ø f j] Y `Y < c W g W i `Y b z X] Y 'U i Z B U W \ U `h] [_Y] h' g Y h n Y b " '8 U g' 9 f [Y V b] g' g] b X `U b [`Y V] [Y z g h f U d U n] Y f Z A \] [Y 'i b X 'g h] `j c ``Y '? `Y] X i b [g g h Ø W_ Y z X] Y g h c `n' [Y h f U [Y b 'k Y f X Y b "$

 $: \emptyset f'U``Y\check{z}X]Y'a Y\setminus f'\emptyset VYf'X]Y'A \grave{O}[`]WX_Y]hYb'YfZU\setminus fYb'a \grave{O}WAhYb.$ $a UXY'Zcf'VfUbXg'; a V<\check{z}Y]b'; C HG!nYfh]Z]n]YfhYf'6Yhf]YV'i bX c ZZ]n]Y``Yf'GhUb`Ym#GhY``U!<\grave{A}bX`Yf']b'6Yf`]b\check{z}ghY\setminus h'VYfY]h'i bX'V]YhYh b]WAh'bi f'\cWAk Yfh][Y'HYI h]`]Yb\check{z}gcbXYfb'Ui WA'dYfg\grave{O}b`]WAY 6YfUhi b['ni 'XYb'dUggYbXYb'DfcXi_hYb'Ub"'Ei U`]hÀh'i bX'Gh]`[Y\Yb'\]Yf'<UbX']b'<UbX''$

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