

GhfY]h'i a 'XYb'; Yf]W\ hgd Uf_d`Uhn.
5i ZYbh\ U`hgc fh'cXYf'DUf_fUi a 'ZØf
C ZZYbVi f[3

K]XYfghUbX'[Y[Yb'l a bi hni b[gd`ÀbY`XYg
; Yf]W\ hgd Uf_d`UhnYg`]b`C ZZYbVi f[. '6Øf[Yf[Ya Y]bgW\ UZh
ZcfXYfh`VYggYfY`DUf_`Øgi b[Yb`ZØf`5bk c\`bYf"

⇒ a '<YfnYb`j cb`C ZZYbVi f[`ghY\`h`Y]bY`\`]h][Y`8YVUhhY`VYj cf.`8Yf
DUf_d`Uhn`VY]a ` \]ghcf]gW\Yb`F`]hYf\`Ui g`_`ØbbhY`]b`Y]bYb`bYi Yb
J YfUbghU`hi b[gc fh'i a [Yk UbXY`h`k YfXYb`"8]Yg`k i fXY`j cb`XYf
GD8!; Ya Y]bXYfUhgZfU_h]cb`VYUbfU[h`zi a `XYf`⇒bYbghUX`h`Y]bY
ni g`Àm`]W\Y`5i ZYbh\ U`hgZ`ÀW\Y`ni `V]YhYb`"8cW\`b]W\h`U`Y`g]bX`a]h
X]YgYf`9bghW\Y]Xi b[`Y]bj YfghUbXYb`"8]Y`6Øf[Yf[Ya Y]bgW\ UZh
C ZZYbVi f[`GhUXha]hY` \Uhg]W\`j Y\Ya Ybh[Y[Yb`X]YgY`D`ÀbY
Ui g[YgdfcW\Yb"

⇒ Y]bYa `cZZ]nY`Yb`GW\ fY]VYb`Ub`XYb`C VYfVØf[Yfa Y]ghYf`A UfW`
GhY ZZYbg`Ài » Yfh`X]Y`6Øf[Yf[Ya Y]bgW\ UZh]`fY`6YXYb`_Yb`i bX`\YVh
\Yfj cf`ž`k]Y`k]W\h][`XYf`VYghY\`YbXY`DUf_d`Uhn`ZØf`X]Y`5bk c\`bYf
XYf`⇒bYbghUX`h`]bgVYgcbXYfY`]b`XYb`B UW\ hgi bXYb`ž]gh` ⇒`NY]hYb`ž
]b`XYbYb`DUf_d`ÀmY`]b`gh`À`Xh]gW\Yb`; YV]YhYb`]a a Yf`_bUddYf
k YfXYb`ž`_ØbbhY`X]Y`l a bi hni b[`XYg; Yf]W\ hgd Uf_d`UhnYg
ni g`Àm`]W\Y`9]bgW\ f`Àb`_i b[Yb`ZØf`X]Y`Øfh]W\Y`6Yj `Ø`_Yfi b[`a]h
g]W\ `Vf]b[Yb"

DUf_Xfi W_`i bX`5i ZYbh\ U`hgZ`ÀW\Yb

9]b`nYbhfU`Yf`Di b_h]b`XYf`5f[i a YbhUh]cb`XYf
6Øf[Yf[Ya Y]bgW\ UZh]gh`XYf`ghY][YbXY`DUf_Xfi W_]b`XYf
⇒bYbghUX`h`G]Y`_f]h]g]YfYb`ž`XUgg`XYf`5bhfU[`XYf`GD8`_Y]bY
k]f_gUa Y`@Øgi b[`ZØf`X]YgY`DfcV`Ya Uh]_`V]YhYh` ⇒`XYb`Y`hnhYb

Δ\fYb`UVYb'g]W`a`h`XYa`F`ÅY!7UffÅž`XYa`?fcbYbei Ufh]Yf'i bX
XYa`bYi`[YghU`hYhYb`Nk`]b[YfdUf`_`VYfY]hg`a`Y`fYfY`bYi`Y
5i ZYbh`U`hgZ`ÅW`Yb`YhUV`]Yfhž`X]Y`X]Y`6Øf[Yf`Ubn]Y`Yb`gc``Yb"
5bk`c`b`Yf`ghY``Yb`bi`b`X]Y`:`fU[Y.`K`Yf`gc``X]Y`[Yd`UbhYb
ni`g`Åm`]W`Yb`G]hna`Ò[`]W`_Y]hYb`ØVYf`U`i`d`h`bi`hnYb3

8]Y`6Øf[Yf[Ya`Y]bgW`UZh`ZØfW`hYhž`XUgg`X]Y`i`a`k`UbX`i`b[`XYg
DUf`_d`UhnYg`XUg`9bXY`VY`_UbbhYf`HfYZZdi`b`_hY`]b`C`ZZYbVi`f[ž`k`]Y
XYf`VY`]YVhYb`7Uddi`W]bc!A`Y]Y`i`bX`XYa`@]bXYbd`Uhnž
VYXYi`hYb`_`ÒbbhY``8]YgY`C`fhY`n]Y`Yb`b]W`h`bi`f`9]b`Y]a`]gW`Yž
gcbXYfb`Ui`W`6Ygi`W`Yf`Ubž`X]Y`XUg`GhUXh`YVYb`[Yb]Y»Yb
a`ÒW`hYb``8]Y`Gcf[Yž`XUgg`X]Y`j`YfV`Y]VYbXYb`A`Ò[`]W`_Y]hYb`ni`a
J`Yfk`Y]Yb`Y]b[YgW`f`Åb`_h`k`YfXYb`_`ÒbbhYbž`Y]nh`X]Y`8]g`_i`gg]cb
ni`g`Åm`]W`Ub"

J`cf`k`Y]hYfYb`G`W`f]hYb`Z`cfXYfb`X]Y`J`YfhfY`hYf`XYf
6Øf[Yf[Ya`Y]bgW`UZh`Y]bY`[YbUi`Y`5bU`mgY`XYf`6YXØfZb]ggY`XYf
5bk`c`b`Yf``G]Y`gW`U[Yb`j`cfž`X]Y`A`Y]bi`b[Yb`i`bX`FYU`_h]cbYb`XYf
6Yj`Ò`_Yfi`b[`]bhYbg]j`Yf`ni`VYfØW`_g]W`h][Ybž`i`a`g]W`Yfni`ghY``Ybž
XUgg`X]Y`A`U»bU`a`Yb`X]Y`@YVYbgei`U`h`Åh`]b`C`ZZYbVi`f[`b]W`h
j`YfgW`Y`W`hYfb"

8]Y`5i`gY]bUbXYfgYhni`b[`i`a`XYb`; Yf]W`hgdUf`_d`Uhn`j`YfXYi`h`]W`hž
k`]Y`k`]W`h][`gh`ÅXhYVUi`_]W`Y`9bhgW`Y]Xi`b[Yb`ZØf`X]Y`6Yk`c`b`Yf
g]bX``ϕ`Y]bYf`NY]hž`]b`XYf`XUg`i`fVUbY`@YVYb`i`bX`X]Y`G`W`UZZi`b[
j`cb`UhhfU`_h]j`Yb`ÒZZYbh`]W`Yb`F`Åi`a`Yb`]a`a`Yf`a`Y`f`Ub`6YXYi`hi`b[
[Yk`]bbYbž`]gh`Yg`i`bYf`Àgg`]W`ž`U``Y`Gh]a`a`Yb`]b`X]Y`D`Ubi`b[
Y]bni`VYn]Y`Yb``K`Å`fYbX`XYf`K`i`bgW`b`UW`a`Y`f`
5i ZYbh`U`hga`Ò[`]W`_Y]hYb`ZØf`X]Y`6Øf[Yf`j`Yfgh`ÅbX`]W`_]ghž`XØfZYb
X]Y`dfU`_h]gW`Yb`6YXØfZb]ggY`XYf`5bk`c`b`Yf`b]W`h`Ui`g`XYb`5i`[Yb
j`Yf`cfYb`k`YfXYb"

6Ygi W\Yb`G]Y`i bg`Ui Z.`b!U["XY