: D² !Dc`]h]\_Yf`]b`G]a a Yf]b[ . '5 ZZÄfY`i a`
; Yg]bXY`!ÿi » Yfi b[ `YbhV`ÀhhYfh°

8]Y`ÒghYffY]W]gW]Y`Dc`]h]\_`ghY`h`]a` : c\_i gž`bUW]XYa`Y]b`
: D² !5V[YcfXbYhYfž`GhY]ZUbž`a` ]h`Y]bYf`i a` ghf]hhYbYb`
ÿi » Yfi b[`ØVYf`UZ[\Ub]gW]Y` : `ØW]h`b[ Y`]b`Y]bYa`
[Y\Y]a` [ Y\U`hYbYb`HfY]ZYb`ZØf`GW`U[nY]`Yb`[Ygc f[h`\Uh`
@Ui`h`6Yf]W]hYbž`X]Y`ØVYf`Y]b`\Y]a` `]W]`Ui`Z[Ybca`a`YbYg`
J]XYc`Ub g`@]W]h`\_Ua`Ybž`VYnY]W]bYhY`Yf`X]Y` : `ØW]h`b[Y`U`g`
/ Ua`d`/ , &&&/ Yg]bXY`/ Ua`d`/ , &&\$/"`8]Yg`ZØ\fhY`ni`Y]bYf`
gcZcfh][Yb`F`YU`\_h]cb`XYf`GhUUhgUbk`U`hgW]UZh`K` ]Ybž`X]Y`
9fa` ]h`i`b[ Yb`]b`X]Y`K`Y[ Y`Y]hYhY`"8Yf`J`cfZU`YfY][bYhY`g]W]`
k`Ä`fYbX`Y]bYg` : D² !GhUa`a`h]gW]Yg`]b`G]a`a`Yf]b[`]a` `]b`i`Uf`
&\$&) ži`bX`Yg`k`i`fXY`Y]b`5bZUb[ gj`YfXUW]h`ZYgh[ YghY`hž`k`Ug`
VYXYi`hYhž`XUgg`5b\U`hgdi`b`_hY`ZØf`Y]bY`a` Ò[`]W]Y`ghfUZVUFY`
<UbX`i`b[`VYghY`Ybž`k`]Y`cYghYffY]W]`"[j`"Uh`Yf`\_`Äfh`"6Y]`Y]bYf`
UbgW]`Y`»YbXYb`D`YbUfg]hni`b[ `k`i`fXY`ni`XYa` `VY`\_Ubbhž`XUgg`
j`YfgW]`YXYbY`5i`ggW]ØggY`]a` `DUf`Ua`Ybh`/ Ua`d`^Y`"d`/`

8]Y`ÒghYffY]W]gW]Y`Dc`]h]\_`ghY`h`]a` : c\_i gž`bUW]XYa`Y]b` : D² !
5V[YcfXbYhYfž`GhY]ZUbž`a` ]h`Y]bYf`i a` ghf]hhYbYb`ÿi » Yfi b[ `ØVYf`
UZ[\Ub]gW]Y` : `ØW]h`b[ Y`]b`Y]bYa` [Y\Y]a` [ Y\U`hYbYb`HfY]ZYb`ZØf`
GW`U[ nY]`Yb`[ Ygc f[ h`\Uh`"@Ui`h`6Yf]W]hYbž`X]Y`ØVYf`Y]b`\Y]a` `]W]`
Ui`Z[ Ybca`a`YbYg`J]XYc`Ub g`@]W]h`\_Ua`Ybž`VYnY]W]bYhY`Yf`X]Y`
: `ØW]h`b[Y`U`g` ; Yg]bXY` "8]Yg`ZØ\fhY`ni`Y]bYf`gcZcfh][Yb`
F`YU`_h]cb`XYf`GhUUhgUbk`U`hgW]UZh`K`]Ybž`X]Y`9fa` ]h`i`b[ Yb`]b`X]Y`
K`Y[ Y`Y]hYhY`"8Yf`J`cfZU`YfY][bYhY`g]W]`k`Ä`fYbX`Y]bYg` : D² !
GhUa`a`h]gW]Yg`]b`G]a`a`Yf]b[`]a` `]b`i`Uf`&\$&) ži`bX`Yg`k`i`fXY`Y]b`
5bZUb[gj`YfXUW]h`ZYgh[YghY`hž`k`Ug`VYXYi`hYhž`XUgg`5b\U`hgdi`b`_hY`
ZØf`Y]bY`a` Ò[ `]W]Y`ghfUZVUFY`<UbX`i`b[`VYghY`Ybž`k`]Y`
cYghYffY]W]`"[ j`"Uh`Yf`_`Äfh`"

6Y]`Y]bYf`UbgW]`Y`»YbXYb`D`YbUfg]hni`b[ `k`i`fXY`ni`XYa` `VY`\_Ubbhž`
XUgg`j`YfgW]`YXYbY`5i`ggW]ØggY`]a` `DUf`Ua`Ybh`[ Yk`Ä`h`k`i`fXYbž`

XUfi bhYf`XYf`Ni gUa a YbgW`i gg`a Y`fYfYf`k]W`h][ Yf`5i ggW`ØggY"
Hfchn`X]YgYf`dc`]h]gW`Yb`9bhk ]W`i b[Yb`V`Y]Vh`XUg`5i [Yba Yf`\_`Ui Z
XYf`\_`Ui ZYbXYb`9fa ]hhi b[ ž`X]Y`Ui ZXYa`_`J YfXUW`h`VYfi `hž`XUgg
GhYZUb`Xi fW`gY]bY`Ÿi » Yfi b[ Yb`a`Ò[ `]W`Yfk Y]gY`X]g`\_`ja]b]YfYbX
i bX`Ubgh`Ò»][` [ Y`UbXY`h`U`h`8]Y`8YZ]b]h]cb`Y]bYg
5bZUb[gj YfXUW`hg`VYXYi hYh`b`X]YgYa`\_`?cbhYI hž`XUgg`X]Y
9fa]hhi b[Yb`nk Uf`Y]b[Y`Y]hYh`k i fXYbž`YXcW`bcW`\_`Y]bY
Jcfj Yfi fhY`i b[ `ghUhh[YZi bXYb`U`hž`k ]Y`j]Y**bbU**"Uh`Yf`Ài hYfh`8Ug
JYfZU`fYb`YfZc`fXYfh`Y]bY`i a ZUggYbXY`DfØZi b[`XYf`Ÿi » Yfi b[Ybž
X]Y`GhYZUb` [Yh`Àh][ h`U`hž`i bX`XYfYb`fYW`h]W`Y`?cbgYeI YbnYb"

FYW`h]W`Y`F`U`a YbVYX]b[i b[Yb

⇒ `F`U`a Yb`XYf`9fa ]hhi b[ `k]fX`GhYZUb`U`g`J YfX`W`h][Yf
VYnY]W`bYhž`c`bY`XUgg`Yf` [Y[Ybk`Àfh][ `U`g`6YgW`i`X][hYf` [ `h`
8]Yg`j YfXYi`h]W`hž`XUgg`X]Y`GhUUhgUb`k`U`hgW`UZh`j`cfYfgh
Ui`gfY]W`YbX`5b`U`hgdi`b`\_`hY`ZØf`X]Y`9fØZbi`b[`Y]bYg`J YfZU`fYbg
`U`hž`b]W`h`YXcW`VYfY]hg`Y]bYb`_`UfYb`HUhj`YfXUW`h`8Yf`Dfc`nYgg
ghY`h`bcW`Ua`5bZUb[ži`bX`gc`hY`_`Y]b`Ui`gfY]W`YbXYf`J YfXUW`h
Yb`hghY`Ybž`\_`Òbb`hYb`X]Y`9fa ]hhi b[ Yb`Y]b[YghY`h`k`YfXYb`8Yf
GWi`hn`XYf`6YhY]`[hYb`j`cf`j`cf`gW`bY`Yb`i`fhY]`Yb`V`Y]Vh`i]b`X]YgYa
Ni`gUa`a`Yb`Ub[`Y]b`nYbhf`U`Yg`5b`]Y[Yb`XYg`F`YW`hggmghYa`gž`gc
k]fX`VYhcbhž`XUgg`gck`c`\_`J YfX`W`h][Y`U`g`Ui`W`6YgW`i`X][hY
ØVYf`\_`fY`F`YW`hY`i`bX`XUg`J YfZU`fYb`]bZcfa`]Yfh`k`YfXYb`a`ØggYbž
k]Y`XUg`Ui`W`i]a`z`&`XYg`GhfUZ[YgYhnVi`W`Yg`ZYgh[ Y`Y[h]gh"

?i fnY`K`YfVY]bV`YbXi`b[

Cfh`XYg`; YgW`Y`Ybg8YhU]`g`ni`f`A`Y`Xi`b[ K`Ug`]gh
dUgg]Yfh3F`Ugg]ga`i`g`b`k`Y`W`Yb`F`Y[]cbYb3G]a`a`Yf]b[; YbUi`Yf`C`fh
VY`\_`Ubbh3G]a`a`Yf]b[ž`K`]Ybž`²`ghYffY]W`6YghY
FYZfYbnj]Y**bbU**"UhK`Y]hYfY`E`i`Y`Yb`c`YghYffY]W`"[j`"Uh

Gci fW`. `X]Y!**bUW`f]W`hYb`"Uh**

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