

: GJ '6`Ui !K Y]gg'≠XUf!C VYfghY]b `V`Y]Vh  
i b[ YgWΛ`U[ Yb.`) .&[ Y[ Yb` ; i `XYbVUWΛ hU`

8Yf`G76!7cUWΛ ; Y]VY`j Yf`Yhnh`g]WΛ `bUWΛ `Y]bYa `H]\_]!HU\_U!  
Gd]Y`[ Y[ Yb` : GJ '6`Ui !K Y]gg'≠XUf!C VYfghY]b`'6Yn]f\_g`][ U!  
<][ \`][ \hg°

≠`XYf` : i »VU`!6Yn]f\_g`][ U` \Uh`XYf` : GJ '6`Ui !K Y]gg'≠XUf!C VYfghY]b  
gY]bY`i b[ YgWΛ`U[ YbY`GYf]Y`Zcfh[ YgYhnh`i bX`V`Y]Vh`Ub`XYf`  
HUVY`Ybgd]hnY`"5a` \$, "GYdhYa VYf&\$&( ž]b`Y]bYa`gdUbbYbXYb  
Gd]Y`[ Y[ Yb`XUg`GWΛ`i`gg`]WΛ`h`G; ; i `XYbVUWΛ hU`ž`\_cbbhY`g]WΛ`XUg  
HYUa`a` ]h) .&`Xi`fWΛ`gYhnYb`"8UVY]`nY][ hY`X]Y`6Y[ Y[ bi`b[ ž`XUgg`g]Y  
b]WΛ`hfY]Vi`b[ g`cg`j`Yf`]YZ`d`UgYbk`Y]gY` \UhhY`X]Y  
Gd]hnYba`UbbgWΛ`UZh`GWΛ`k`Y]f][ \_Y]hYbž`]\fY`8ca`]bUbn`Ui`Z`XUg  
Gd]Y`ZY`X`ni`ØVYfhfU[ Yb`"

8]Y`DUfh]Y`VY[ Ubb`a` ]h]bhYbg]j`Yb`5b[ f]ZZYbž`i`bX`X]Y  
5Vk`Y`fgd]Y`Yf`XYf`G; ; i `XYbVUWΛ hU`ž`XUfi`bhYf`A`Uf`cb`?fi`Uhn  
i`bX`ž`]Ub`8Yi`hgWΛ`ž`j`Yfgi`WΛ`hYb`U`Y`gž`i`a`X]Y`5b[ fY]ZYf`XYg` : GJ  
Ui`Zni` \U`hYb`"Hfcm`X]YgYf`5bgfhYb[ i`b[ Yb`ZUbX`XUg`HYUa`Ui`g`≠XUf!  
C VYfghY]b`]a`a`Yf`k`]YXYf`K`Y[ Yž`X]Y`[ Y[ bYf]gWΛ`Y`8YZYbg]j`Y`ni  
ØVYfk`]bXYbž`k`Ug`Y`hnh`]WΛ`ni`]\fYa`X]Yi`h`]WΛ`Yb`G]Y[ `ZØ`fhY`"

I b[ `ØW`\_]WΛ`Y`B`]YXYf`U[ Yb`XYf`F`]j`U`Yb

K`À`fYbX`XYf` : GJ '6`Ui !K Y]gg`hf]i`a`d`]\YfhYž`a`i`gghYb`Ub`XYfY  
A`UbbgWΛ`UZhYb`XYf`@[ U`V]hhYfY`B`]YXYf`U[ Yb`Y]bghYW`Yb`"8Yf`G7  
6]f`\_YbZY`X`j`Yf`cf`a` ]h) .( [ Y[ Yb`XYb`J`Z@G]a`a`YfhU`ž`k`Ug`X]Y  
Gcf[ YbZU`hYb`VY]`XYb` : Ub`g`j`Yfgh`Å`f`\_hY`"5i`WΛ`XYf`Hi`G`A`ÖfgWΛ]YX  
Yf`YVhY`Y]bYb`F`ØW`gWΛ`U[ i`bX`i`bhYf`U[ `a` ]h`%`&]b`K`]bhYfVUWΛ`"  
8]YgY`9f[ YVb]ggY`j`Yfgh`Å`f`\_Yb`X]Y`8fUa`Uh]\_]b`XYf`i`bhYfYb  
HUVY`Yb`À`ZhY`i`bX`nY][ Ybž`k`]Y`gWΛ`bY`g]WΛ`X]Y`@U[ Y`ZØ`f`X]Y

VYhfcZZYbYb`HYUa g`ÀbXYfb`\_Ubb"

⇒ `Gd]Y`nk ]gWXYb`G]a a YfhU`i bX`6]f\_YbZY`X`k UfYb`X]Y  
5bZUb[ ga ]bi hYb`YbhgWXY]XYbX`"6YfY]hg`]b`X]YgYf`D\UgY`\_Ugg]YfhY  
6]f\_YbZY`X`gWbY`"; Y[ YbhcFYž`k Ug`hmd]gW`ZØf`]\fY`V]g\Yf][ Yb  
5i Zhf]hhY`]b`X]YgYf`GU]gcb`ni`gY]b`gWXY]bh"9]bY`gc`WXY  
GhUfhgWk ]Yf][ \_Y]h`\_ÒbbhY`g]W`U`g`hØX`]WXYf`B UWk hY`  
\YfUi`gghY`Ybž`k Ybb`X]Y`A UbbgW UZh`b]W`h`VU`UbW]YfhY  
Gd]Y`ghfUhY[ ]Yb`Ybhk ]W\_Y`h"

⇒ `XYf`Nk ]gWXYbnY]h`Vcca Yb`X]Y`9fk Ufhi`b[ Yb`Ub`XYb` : 7`6`Ui`!  
K Y]gg"8]Y` : Ub`g]bX`VY[ Y]ghYfh]`cb`XYf`C ZZYbg]j Y`i bX`XYf  
5[ [ fYgg]j ]h`h`]\fYg`HYUa`gž`XUg`gWXY]bVUf`i bUi`Z`U`hgUa``Ui`Z`XYa  
K Y[ `ni`a`5i`Zgh]Y[ `]gh" ⇒ f`Gd]Y`gh]ž`XYf`c`Zh`Ub`XUg`VY`\_UbbhY`H\_]!  
HU`\_Yf]bbYfhž`]Y»`X]Y`Ni`gW`Ui`Yf`↑ VY`bž`Ui`W`k`Ybb`Yg`]b  
D\UgYb`i`b[ Yd`Ubhi`bfi`bX`]YZ"

8]YgY`9f[ YVb]ggY`g]bX`b]W`h`bi`f`ZØf`X]Y`^k`Y]][ Yb`7`i`Vgž`gcbXYfb  
Ui`W`ZØf`X]Y`[ YgUa`hY`@[ U`j`cb`6YXYi`hi`b[ ""8]Y`?`cb`\_i`ffYbn`k`]fX  
Ub[ YgdUbbh`V`Y]VYbž`i`bX`^XY`k`Y]hYfY`6Ygh`Y]ghi`b[ `j`cb`6`Ui`!  
K Y]gg`\_Ubb`XUg`GW`]W`gU`XYf`UbXYfYb`HYUa`g`ghUf`\_VYY]bZi`ggYb"

8 Ug`b`AW`ghY`Gd]Y`\_ÒbbhY`gW`cb`YbhgWXY]XYbX`ZØf`j`]Y`Y  
A UbbgW UZh`b`gY]bž`XU`X]Y`5VgW`i`gghUVY`Yb`bUW`^XYa  
Gd]Y`hU[ `XYf`6Yn]f\_g][ U`]a`a`Yf`i`bVYfYWXYbVUfYf`k`YfXYb""8]Y  
HYUa`g`k`YfXYb`k`Y]hYf`j`Yfgi`WXYbž`g]W`]b`XYf`@[ U`ni`VY`U`i`dhYb  
i`bX`[ `Y]W`nY]h][ `X]Y`U`\_hi`Y`Yb`<`YfUi`gZc`fXYfi`b[ Yb`ni`a`Y]ghYfb"  
J`c`f`Ui`gg]W`h]W`k`]fX`X]Y`Gd`Ubbi`b[ `]b`XYb`\_ca`a`YbXYb`K`c`WXYb  
bi`f`ni`bY`a`Ybž`XU`^XYf`Di`b`\_h`YbhgWXY]XYbX`gY]b`\_ÒbbhY"

8 YhU]`g

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