

B F K . ; G; - 'nYfgWx `À[ h'GWx `Yi gYf!  
B Y hnk Yf\_ '! ; fc» Y]bgUhn']b`a Y \ fYfYb  
GhÀXhYb °

; fc» fUnn]U. ; G; - 'ghcddh\_f]a ]bY`Yg'GWx `Yi gYf!B Y hnk Yf\_]b  
B F K / Ua d / '9i fcdU" , VYf') \$\$ 'Dc`n]ghYb`]a '9]bgUhn"'8YhU]`g  
Zc`Yb"

; Y`gYb\_]fWx Ybž'8Yi hgWx `UbX`!'9]b`c\ fYbVYhÀi VYbXYf`@Àfa  
Xi fWxVf]Wxh`X]Y`a cf[ YbX`]WxY`Gh`Y`Y]b`BcfXf\Y]b!K YghZU`Yb.`8]Y  
9`]hYhfi ddY ; G; - 'Vf]Wxh`]b`a Y \ fYfYb`GhÀXhYb`[ `Y]Wx nY]h][ `X]Y  
HØfYb`Ui Z`5a `ZfØ\Yb`A ]hkh cWx a cf[ Yb`nc[ Yb`ØVYf') \$\$  
6i bXYgdc`n]ghYb`]b`Y]bYa `f]g\_UbhYb`A Ub`Òj Yf`[ Y[ Yb`Y]b  
g\_fi dY`cgYg'GWx `Yi gYf!B Y hnk Yf\_]j cfž`XUg`]a `J YfXUWx h`ghY\hž  
A YbgWxYb`Ui Z`UVYbhYi Yf`]WxY`i bX`[ YZÀ\ f`]WxY`K Y]gY`bUWx  
; fc» Vf]hUbb]Yb`ni `gWx `Yi gYb`"I bhYfghØhnh`k i fXYb`g]Y` \ ]YfVY]j cb  
GcbXYfY]b\Y]hYb`i bX`9fa ]hYfb`Ui g: fUb\_fY]Wx`i bX`9b[ `UbX`"K ]Y  
X]Y`fYbca a ]YfhY`6]`X`VYf]Wx hYhž`YfghfYW\_h`g]Wx`X]Y`C dYfUh]cb`j cb  
XYb`XYi hgWx Yb`GhÀXhYb`9ggYbž; Y`gYb\_]fWx Ybž; fYj YbVfc]Wx`i bX  
6cWx i a `V]g`ØVYf`X]Y`ZfUbn`Òg]gWx Yb ; fYbnYb` \ ]bUi g`A Y \ f`U`g  
nY \ b`Yi fcdÀ]gWxY`< UZhVYZY` \ `Y`k i fXYb`XUVY]j c`ghfYW\_h"

⇒ `J]g]Yf`XYg`Ub[ Y`[ Yd`UbhYb`9]bgUhnYg`ghY\h`Y]b`]fU\_]gWx!  
\_i fX]gWxYg`B Y hnk Yf\_ž`XUg`j Yfnk Y]ZY`hY`A ][ fUbhYb`Ui g`XYa  
BU\Yb`CghYb`i bX`CghUzf`\_U` ]b`\_Y]bYbž`a ]bXYfk Yfh][ Yb  
GWx`Ui WxVcchYb`ØVYf`XYb`[ YZÀ\ f`]WxYb`Y`fa Y`\_UbU`gWx]ddYfhY"  
8]YgY`dYfZ]XY`A UgWxY`YbXYhY`bi b`a ]h`Y]bYa `[ Yk U`h][ Yb`GWx`U[  
[ Y[ Yb`X]Y`8fU\h]Y\Yf": fUi YbgWx ]W\_gU`Y`i bX`? ]bXYfgWx ]W\_gU`Y  
\Àb[ Yb`XUVY]`Vi WxghÀV`]Wx`j cb`Y]bYa `gY]XYbYb: UXYbž`XYbb`X]Y  
, VYfZU\fh`Ui Zgc`WxYb`6cchYb`]gh`b]Wxh`bi f`]`Y[ U`ž`gcbXYfb`Ui Wx  
`YVYbg[ YZÀ\ f`]Wx"

# 9]bY`U\_f]V]gW\`[ Yd`Ub hY`5\_h]c b

Δ\ fY`Ub[ Y`9fa ]hhi b[ Yb`a ØbXYhYb`Ub`X]YgYa`VYgU[ hYb`A cf[ Yb  
]b`X]Y`\_ccfX]b]YfhYb`8i fW\gi W\i b[ Yb``A Y\ fYfY  
A Y\ fZJa`j]Yb\Ai gYfž`@U[ Yf\U`Yb`i bX`Y]b`5gm`\Y]a`k i fXYb  
Xi fW\gi W\h``8Yf`9]bgUhn`[ ]b[ `k ]Y`Y]b`[ YØ`hYg`i \fk Yf\_  
j cbghUhhYb.`NY]h[ `Y]W\`ZUbXYb`F Unn]Yb`gck c\``]b`BcfXf\Y]b!  
K YghZU`Yb`U`g`Ui W\`]b`6UXYb!K ØfhYa`VYf[ `ghUhh``8]Yg`gdf]W\h`ZØf  
X]Y`U\_f]V]gW\Y`D`Ubi b[ `i bX`X]Y`]bhYfbUh]cbU`Y`Ni gUa`a YbUfVY]h  
nk ]gW\Yb`XYb`: U\ bXi b[ gVY\ ØfXYb"

9]bY`GdfYW\Yf]b`XYf`6i bXYgdc`nY]`Ai » YfhY`g]W\`YXcW\`k cfh\_Uf[  
ni`\_cb\_fYhYb`8YhU]`g`XYf`9]bgUmcfhY`i bX`\_ØbX][ hY`ZØf  
8cbbYfghU[ `ni gÅhn`]W\Y`ϕZcfa Uh]cbYb`Ubž`i a`X]Y`9fa ]hhi b[ Yb  
b]W\h`ni`[ YZÅ\ fXYb``8Yb`bcW\`ØVYfgW\UhhYh`X]Y`: fU[ Y`XYf  
A UW\YbgW\UZhYb`i bX`J Yfghf]W\_i b[ Yb`XYf`6YgW\i`X][ hYb`X]Y  
6Ya`Ø\i b[ Yb`XYf`9fa ]h`Yfž`YXcW\`k ]fX`Y]bYg`\_Uf.`<]Yf`k ]fX  
\_bU``\Ufh[ Y[ Yb`XUg]`Y[ U`Y`; YgW\ÅZhXYf`GW`Yi gYf  
j cf[ Y[ Ub[ Yb"

## ; `cVU`Y`8]a Ybg]cb`XYg`GW\`Yi gYfk YgYbg

8]Y`A Ø\`Yb`XYf`; YfYW\h][ \_Y]h`a U\`Yb`Ub[ gUa`žXcW\`Ui Z  
]bhYfbUh]cbU`Ya`DUf`\_Yhh`k ]fX`X]YgY`C dYfUh]cb`U`g`ghUf`\_Yg`G][ bU`  
[ Y[ Yb`X]Y`Ghfi`\_hi fYb`XYg`A YbgW\Yb`UbXY`g[ YgY\Yb``?f]a ]bY`Y  
BYhmk Yf`\_Yž`X]Y`gc`W\`[ YZÅ\ f`]W\Y`A U» bU\`a Yb`Yf[ fY]ZYbž`i a  
DYfgcbYb`ØVYf`XYb`Y`fa Y`\_UbU`ni`hfUbgdcfh]YfYbž`gc`Yb`XUa ]h  
Y]b`ZØf`U`Y`A U`[ Yghcdd`h`k YfXYb``GW`Y]Y»`]W\`[ Y\`h`Yg`i a  
A YbgW\Yb`YVYbž`X]Y`VY]`BUW\h`i bX`BYVY`U\_h]cbYb`[ YZÅ\ fXYh  
k YfXYb``**Mc i Hi VY`**\YVh`X]Y`8]a Ybg]cb`XYf`5\_h]cb`\Yfj cf`i bX  
nY][ h`X]Y`[ `cVU`Y`Ni gUa`a YbUfVY]hž`X]Y`bØh][ `k Ufž`i a`XUg  
BYhmk Yf`\_ni`gdfYb[ Yb"

Gc`V`Y]Vh`UVni k UfhYbž`k ]Y`g]W\`X]Y`@U[ Y`k Y]hYfYb`hk ]W`\_Y`hi bX  
k Y`W\Y`k Y]hYfYb`8YhU]`g`Ubg`@]W\h`\_ca`a Yb``8]Y`A U» bU\`a Yb  
[ Y[ Yb`A YbgW\Yb`UbXY`i bX`GW\`Yi gYf`\_f]a ]bU`]hÅh`g]bX`Y]b`\_`UfYg  
NY]W\Yb`XUZØfž`XUgg`XYf`F YW\hgghUUh`Yb`hgW\`cggYb`]ghž`X]YgYb  
[ YZÅ\ f`]W\Yb`A UW\YbgW\UZhYb`Y]bYb`F ]Y[ Y`j cfni gW\]YVYb``i`bgYf

8 Ub\_ [ Y\h'Ub`X]Y: fUi Yb`i bX`A ÅbbYfž`X]Y`i bYfa ØX`]W`XUfUb  
UfVY]hYbž`gc`W`Y`J YfVfYW`Yb`Ui Zni \_`ÀfYb`i bX`ni `j Yf\]bXYfb"

8YhU]`g	
J c fZU``	A YbgW`Yb`UbXY`
C fh	; Y`gYb_]fW`Ybž`8Yi hgW`UbX
: YghbU`a Yb	%&

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