

⇒hY`g`GdUf_i fg. `K Ug`VYXYi hYh`XUg`ZØf
A U[XYVi f[g`bYi Y`7\]d! : UVf]_3

⇒hY`ghY`h`%) "\$\$\$`5fVY]hgd`ÀhnY`Y]b`i bX`gYb`h`?cghYb`"K Ug
VYXYi hYh`XUg`ZØf`X]Y`[Yd`UbhY`7\]dZUVf]_`]b`A U[XYVi f[3

⇒hY`i bX`XYf`GhY`YbUVVUi . `5i gk]f_i b[Yb
Ui Z`XUg`[Yd`UbhY`K Yf_]b`A U[XYVi f[

8Yf`FØW_[Ub[`XYf`<U`V`Y]hYf]bXi ghf]Y`U`h`XYb`?cbnYfb`⇒hY`]b
Y]bY`_f]h]gWXY`@U[Y`[YVfUW`h`A]h`XYf`5b`ØbX][i b[ž`k Y`hk Y]h
%) "\$\$\$`5fVY]hgd`ÀhnY`UVni VUi Ybž`ghY`Yb`b]W`h`bi`f`X]Y
A]hUfVY]hYf`j`cf`<YfUi`gZc`fXYfi`b[Ybž`gcbXYfb`Ui`W`X]Y`Ni`_i`bZh
XYg`bYi`Yb`7\]d!K Yf_g]b`A U[XYVi f[`]_Øb`bhY`VYhfc`ZYb`gY]b"
8]YgYf`5fh]_Y`VY`Yi`W`hYh`X]Y`U`hi`Y`Yb`9b`hk]W_i`b[Yb`i`bX`]\fY
a`Ø[`]W`Yb`5i`gk]f_i`b[Yb`Ui`ZX]Y`FY[]cb"

8]Y`G]hi Uh]cb`j`cb`⇒hY`

@Ui`h`⇒hY`!7\YZDUh;`Y`g]b[Yf`k]fX`XUg`i`bhYfbY`a`Yb`Y]b
GdUfdfc[fUa`a`]b`<Ø`Y`j`cb`ØVYf`nY`b`A`j`]UfXYb`8c`Uf
i`a`gYhnYbž`i`a`X]Y`?cghYb`ni`gYb`_Yb`"8]Yg`[YgW`X]Y`h`i]a`?cbhYI`h
Y]bYg`g][b]Z]_UbhYb`J`YfhfUi`Ybgj`Yf`i`ghYg`Ui`Z`XYf`K`U`GhfYYhž`k`c
X]Y`5_h]Yb`XYg`i`bhYfbY`a`Ybg`nY]hk`Y]gY`i`a`ZUgh`\$`DfcnYbh
Y]bVfUW`Yb`X`Yf`[fØ`hY`FØW_[Ub[`gY]h`ØVYf`(\$`X`Yb`";`Y`g]b[Yf
g]Y`h`X]Y`B`chk`YbX][_Y]hž`X]Y`?cghYbghfi`_hi`f`XYg`i`bhYfbY`a`Ybg
ni`ØVYfUfVY]hYbž`XU`X]Y`A`Uf[Yb`U`g`ni`b]YXf][`i`b`X`X]Y`?cghYb`U`g
ni`c`W`YfUW`hYh`k`YfXYb"

; Yd`UbhYg`K Yf_]b`A U[XYVi f[

⊕·XYb`j Yf[Ub[YbYb`A cbUhYb` \Uh⊕hY` [fc» Y`D`ĀbY`ZØf`XYb`6Ui
Y]bYf`bYi Yb`7\]d!: UVf]_`]b`A U[XYVi f[`j cf[YghY`h"8]YgY
⊕j Ygh]h]cbž`X]Y`Yhk U" \$`A]`]UfXYb`9i fc`_cghYb`gc`ž`k Uf`HY]`XYf
GhfUhY[]Yž`X]Y` : Yfh][i b[g_UdUn]hĀhYb`Ui gni VUi Yb`"Hfc`h`XYf
Ub[Y_ØbX][hYb`GhY`YbghfY]WĀi b[Yb`VYhc`bh; Y`g]b[Yfž`XUgg`X]Y
GhfUhY[]Y`j cb` ⊕A`&"\$`k Y]hYf\]b`6YghUbX`\UVY"8]Y
I bg]WĀYf\Y]h`V`Y]Vh`YXcWĀž`XU`Yf`b]WĀh`_cb`_fYh`Ui Z`X]Y
⊕j Ygh]h]cbYb`]b`8Yi hgWĀ`UbX`Y]b[]b["

C dh]a]ga i g`XYf`@UbXYgfY[]Yfi b[

8]Y`@UbXYgfY[]Yfi b[`j cb`GUWĀgYb!5b` \U`h`nY][h`g]WĀ`c`dh]a]gh]gWĀž
XUgg`X]Y`D`Ubi b[Yb`ZØf`A U[XYVi f[`b]WĀh`VYY]bhfĀWĀh][h`k YfXYb"
GdfYWĀYf`A Uhh\]Ug`GWĀi ddY`Yf`_ĀfhYž`XUgg`⊕hY`j Yfg]WĀYfh`\UVYž
X]Y`D`Ubi b[Yb`ZØf`XYb`GhUbXc`fh`i bj YfĀbXYfh`Zc`f`hni ZØ`fYb"
8YbbcWĀ`]gh`Yg`i b[Yk]ggž`]bk]Yk Y]h`X]Y`bYi Yb`GdUfa U» bU`a Yb
X]Y`hUhgĀWĀ`]WĀYb`NY]hd`ĀbY`i bX`Z]bUb`n]Y`Yb`A]hY`ZØf`XUg`Dfc`Y`h
VYY]bZi ggYb`_ØbbhYb"

8 Yf`A Uf`_h`ZØf`< U`V`Y]hYf`i bX`X]Y < YfUi gZc`fXYfi b[Yb

⊕hY` \Uh`gY]h`Ā\`fYb`a]h`Y]bYa` `F ØW_[Ub[`gY]bYf`A Uf`_h`d`cg]h]cb`ni
_Āa`dZYb"6YgcbXYfg`XYf`5i Zk UbXž`X]Y`8ca]bUb`n`Ui Z`XYa
Ga Ufhd`cbY!7\]d!A Uf`_h`ni fØW`_ni YfcVYfbž`ghY`h`Y]bY`VYXYi hYbXY
< YfUi gZc`fXYfi b[`XUf" `A]h`XYa` `hfYbX][Yb`K YWĀgY`ni
YZZ]n]Yb`hYfYb`5FA`!Dfc`nYggc`fYb`VY]?cb`_i ffYb`hYb`k]Y`5dd`Y`i bX
E i U`W`a`a` \Uh`⊕hY`j]Y`A Uf`_h`Ub`hY]`j Yf`c`fYb" `I a`k Y]hYf\]b
k YhhVYk YfVgZĀ\][`ni `V`Y]VYbž`d`Ub`h`XUg`l bhYfbY`a Ybž`g]WĀ
ghĀf`_Yf`U`g`5i ZhfU[gZYfh][Yf`ZØf`UbXYfY`7\]d!9b`hk]W`_Yf`ni
d`cg]h]cb]YfYb"

8 Yf`K Y[`bUWĀ`j c`fbY

; Y`g]b[Yf`i bX`⊕hY`ghY`Yb`j cf`XYf`< YfUi gZc`fXYfi b[ž`gWĀbY`Ui Z
ŸbXYfi b[Yb`]a` `A Uf`_h`ni `fYU[]YfYb"8]Y`5bdUggi b[`XYf
DfcXi`_h]cbg`_UdUn]hĀhYb`k]fX`Yb`hgWĀY]XYbX`gY]bž`i a` `Ui Z`X]Y

B UWZfU[Y'ni 'fYU[]YfYbž'i bX' ['Y]W nY]h]['X]Y' ðj Ygh]h]cbYb' b]W h
ni 'ØVYf'UghYbž'V]g'g]W 'X]Y' A Uf_hVYX]b [i b [Yb'ghUV]']g]Yfh'\ UVYb"
8Yf'6Ui 'bYi Yf'K Yf_Yž'gck c\'']b'XYb' i G5'U'g'Ui W ']b'9i fcdUž
V'Y]Vh'HY]'XYf''Ub [Zf]gh][Yb'GhfUhY []Yž'gc'Ub [Y'X]Y'f]W h][Yb
6YX]b [i b [Yb' [Y [YVYb'g]bX"

: Un]h

C V k c\''X]Y'5b_ØbX][i b ['XYg'GhY''YbUVVUi g'i bX'X]Y
I bg]W Yf\Y]h'ØVYf'ni _ØbZh][Y' ðj Ygh]h]cbYb']b'XUg' A U[XYVi f[Yf
K Yf_'VYgc f [b]gYffY [YbX'g]bXž'nY][h'X]Y '@UbXYgfY []Yfi b []
Ni j Yfg]W h''8]Y'9b'k]W_i b [Yb']b'XYb' _ca a YbXYb' A cbUhYb
k YfXYb'Yb'hgW Y]XYbX'gY]bž'i a 'ni 'VYcVUW hYbž'k]Y' ðhY''a]h'XYb
<YfUi gZcfXYfi b [Yb'Y]bYg'g]W 'gW bY''j YfÅbXYfbXYb' A Uf_hYg
i a [Y\h'i bX'k Y'W Y'5i gk]f_i b [Yb'X]Yg'Ui Z'X]Y' [Yd'UbhYb
Dfc'Y_hY']b'8Yi hgW 'UbX'\ UVYb'k]fX"

8Yf'K Y [ž'XYb' ðhY''Y]bgW'À [hž'k]fX'b]W h'bi f'XUg'i bhYfbY\ a Yb
gY'Vghž'gcbXYfb'Ui W 'X]Y'F Y []cb' A U[XYVi f['i bX'X]Y
6YgW'ÀZh][i b [gg]hi Uh]cb''Ub [Zf]gh]['VYY]bZi ggYb"

' B 5;

8YhU]'g

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