

## GhUfh!i dg'j cb 'GWX Ø`Yfb. '=bbcj Uh]cb ']a ; fØbXYfnYbhfi a 'FchhU`! =bb°

; ma bUg]UghYb`]a `; fØbXYfnYbhfi a `; fY; `FchhU`! ₺bdfÀgYbh]YfYb`]bbcj Uh]j Y`GhUfh!i d!→XYYb`VY]a `K YhhVYk YfV : ]h`Zcf`GhUfh!i d "



FchhU`!=bbž'8Yi hgWX`UbX`!`@YVYbX]['i bX'j c``Yf'=XYYb dfÀgYbh]YfhYb'g]W\'X]Y'^1 b[Yb'; fØbXYf]bbYb'i bX'; fØbXYf'XYf'%\$"?`UggY'XYg'I bhYfbY\a Yf[ma bUg]i a g'DZUff\_]fWXYb']a '; fØbXYfnYbhfi a '; fY; 'FchhU`!=bb"=a 'FU\a Yb'XYg'D]hWX!
K YhhVYk YfVg': ]h'Zcf'GhUfh!i d '\UhhYb'X]Y'GWXØ'Yf]bbYb'i bX
GWXØ`Yf'X]Y'A Ò[`]WX\_Y]hž']\fY'\_fYUh]j Yb'; YgWXÀZhga cXY``Y'j cf
Y]bYf'\_ca dYhYbhYb'\$ fm'ni 'dfÀgYbh]YfYb"'9]b'\$J\f'`Ub[
VYgWXÀZh][Yb'g]WX'j ]Yf'HYUa g'a ]h'XYf'9bhk ]W\_`i b[']\fYf'=XYYb
i bX'YfghY``hYb'XUVY]': ]bUbnd`AbYž'@c[cg'gck]Y
A Uf\_Yh]b[ghfUhY[]Yb"

6UmYfb '\ Uh'g]W\ '&\$&( 'a ]h'&z' 'A ]``]UfXYb '9i fc 'Ub '\dot j Ygh]h]cbYb ']b GhUfh!i dg'XYb 'YfghYb 'D`Uhn']a '6i bXYgj Yf[ `Y]W\ '[ Yg]W\ Yfhz'k Ug'X]Y

6YXYi hi b['XYf'; fØbXYf\_i `hi f']b'XYf'FY[]cb'i bhYfghfY]W\h''=a 'I bhYfbY\a Yf[ma bUg]i a ž'XUg'gY]h'&\$\$\*'VYghY\hž'k]fX'X]YgYf; Y]gh'U\_h]j '[YZÒfXYfh''8Ug'; fØbXYfnYbhfi a 'gY'Vghž'XUg'&\$&\$']bg @YVYb'[Yfi ZYb'k i fXYž'V]YhYh'7ck cf\_]b[!5fVY]hgd`ÀhnYž'fi \][Y 6Øfcg'i bX'\_fYUh]j Y'FÀi a Yž'X]Y'Y]bY']XYU`Y'I a [YVi b['ZØfUi ZghfYVYbXY'I bhYfbY\a Yf'gW\UZZYb"

## =bbcj Uh]j Y =XYYb ]a F Ua dYb ]W h

8]Y 'HYUa g'dfÀgYbh]YfhYb 'UVk YW\g`i b[gfY]W\Y'; YgW\ÀZhg]XYYbž X]Y 'j cb '\UbX[Ya UW\hYb '7cc\_]Yg'V]g'ni '[Ygi bXYb'5i hca UhYb fY]W\hYb'' < ]Yf'Y]bY', VYfg]W\h'XYf'dfÀgYbh]YfhYb'Dfc $\Upsilon$ \_hY.

- 6]gci . < UbX[Ya UW\hY 7cc\_]Yg'i bX 8cbi hg"
- ; F99B  $^{\cdot}6 \pm 19$  .  $^{\cdot}5i$  hca UhYb  $^{\cdot}a$  ]h  $^{\cdot}[$  Ygi bXYb  $^{\cdot}A$  U\  $^{\cdot}nY]$ hYb  $^{\cdot}$ Ub FUghghÀhhYb  $^{\prime\prime}$
- 8 Y]b? Y\_g . DYfgcbU`]g]YfVUfY'? Y\_gY"
- $x \in V \setminus i \in V$  . "J Y fa ] hhìi b [ "j cb": Y f] Y b 'c V g "i b X "\_i fn Z f] gh] [ Y < ] `ZY "] b `X Y f `B U W \ V U f g W \ U Z h "

A ]h ghUf\_Yb DfÀgYbhUh]cbYb ii bX '\_`UfYb '? cbnYdhYb 'ØVYfnYi [ hYb X]Y '; fØbXYfhYUa g'X]Y ' $\Rightarrow$  fmž'ni 'XYf'J YfhfYhYf'j cb'  $\Rightarrow$  ?  $\check{z}$ 'GdUf\_UggYž A cV]A YX]U'5; ii bX 'XYf' < Ubg!@]bXbYf!Gh]Zhi b[ '[ Y\ÒfhYb"' $\Rightarrow$ XY ; fi ddY '\UhhY 'ZØbZ'A ]bi hYb 'NY]hž'i a ']\fY' $\Rightarrow$ XYY'ni 'd]hWXYb"'8Yb Gdfi b[ ']bg': ]bU`Y'gWXUZZhY '`Yhnh`]WX 'XUg'HYUa 'j cb'  $\Rightarrow$ V\i V  $\check{z}$ 'XUg XYb'K YhhVYk YfV'ZØf'g]WX 'YbhgWXY]XYb'\_cbbhY"

## I bhYfghØhni b[ j cb 9 d YfhYb

Ni gàhn`]W\Ybʻ\bdi h'Yf\]Y`hYb`X]Y`HY]`bY\a Yf`Xi fW\: UW\j cfhfà[Y"A UI ]a ]`]Ubʻ@Ycb\Ufhž; fØbXYf'j cbʻ fY6f]W\_Yf ž'[UV`k Yfhj c``YH]ddgž'k]Y`a Ubʻ\XYYb`Ub`U\_hi Y``Y`A Uf\_hbUW\ZfU[Yb`UbdUggYb\_Ubb"'<UfU`X`K U[bYf'j cbʻ6UmGhUfhl D'Yf\_`àfhY`XYb`'i b[YbHU`YbhYbž'k cfUi Z'\bj YghcfYb`VY]`Y]bYa `D]hW\`UW\hYb"`Gc`W\Y JYfUbghU`hi b[Yb`g]bX`b]W\h'bi f`k]W\h][`ZØf`X]Y`]bX]j ]Xi Y``Y9bhk]W\_`i b[žgcbXYfb`Ui W\`ZØf`X]Y`GhÀf\_i b[`XYg`; fØbXYf[Y]ghYg]b`XYf`FY[]cb"

8]Y'JYfUbghU`hi b['kifXY'ghUf\_'i bhYfghØhnh'XifW\'XUg'Dfc[fUa a; fØbXYf`UbX'6UmYfb'i bX'XUg'6UmYf]gW\Y'K]fhgW\UZhga]b]ghYf]i a ž
XUg'Ua V]h]cb]YfhY'; fØbXYf']b']\fYa 'Jcf\UVYb'VY['Y]hYh''6UmYfb

bcjUh]j 'V]YhYh'YVYbZU``g'i a ZUggYbXY': ÒfXYfdfc[fUa a Yž'X]Y
ZØf'GhUfh!i dg'i bX''l b[Y'I bhYfbY\a Yb'VYfY]hghY\Ybž'i a 'X]Y
I a gYhni b['j cb'Dfc'Y\_hYb'gW\bY``i bX'YZZ]n]Ybh'ni 'ZÒfXYfb''

A Ufh]b 'GdYb[ 'Yfž'BYhnk Yf\_a UbU[ Yf'Ua '; fY; 'F chhU'!  $\pm$ b ž'VYhcbhY X]Y '`Ub[ Zf]gh][ Y'6YXYi hi b[ 'gc 'Wk Yf'K YhhVYk YfVY'ZØf'X]Y 9bhk ]W\_`i b[ 'XYf'FY[ ]cb"'GY]bY'K cfhY'ZUggYb'X]Y'Gh]a a i b[ hfYZZYbX'ni gUa a Yb.' <]Yf'k ]fX'XYf'; fi bXghY]b 'ZØf'ni \_ØbZh][ Y ; fØbXi b[ Yb'[ Y`Y[ h" ' $\pm$ b'X]YgYa 'G]bbY'XØfZYb'k ]f'[ YgdUbbh'gY]bž k ]Y'X]Y'\_fYUh]j Yb' $\pm$ XYYb'XYf'î b[ Yb'6Yj Ò`\_Yfi b[ 'i bgYf k ]fhgWk UZh`]Wk Yg'l a ZY`X']b'XYb'\_ca a YbXYb' $\pm$ U\fYb'k Y]hYf VYfY]Wk Yfb'k YfXYb"

8 Y hU]`g	
Cfh	Fchhu`!=bbž8YihgWX`UbX
EiY``Yb	• k k k "dbd"XY
	• i bhYfbY\a Yf[ ma bUg]i a "XY
	• k k k "VUmYfb!]bbcj Uh]j "XY

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. 'bU[!VUmYfb"XY