

⇒a][fU]Y Gh X]i



Gh X]i !'I b]j Yfg]hUy

Dc`cbYnB

: fUbWnB

7\W]U Wma #7\W]U Wma `nLd]g]ä'g]ö'bU'gh X]U'
A Yb]cbYUhB`V]Bj fY]'gB'hY'ÉbgW]]`U'i b]j Yfg]hUy

>Yj ci XfU]gja f]bgW]]fY'¼fii b]j Yfg]hÅ"

7\W]U Wma #7\W]U Wma `nLd]g]ä'g]ö'bU'SSSSSSSSS"
5 j fYU'gB'Ud`]WdYbhf]i`i b`Wfg

>Yj ci XfU]gja f]bgW]]fY'¼SSSSSSSSSS"

gh X]U`]WbWUW]Y
H]di`XY`Wfg

i bY`Zcfa U]cb`Xi`dfYa]Yf`W`W`W

gh X]U'a U_]ghYfg_]Y
H]di`XY`Wfg

i bY`Zcfa U]cb`Xi`g`W`bX`W`W`W

gh X]U'Xc`hcfUbW_]Y
H]di`XY`Wfg

i b`Xc`W`cf`U`h

gh X]U'Xn]YbbY
H]di`XY`Wfg

i bY`Zcfa U]cb`¼hYa dgd`Y]b

gh X]U'nLc`W]bY
H]di`XY`Wfg

i bY`Zcfa U]cb`¼hYa dgdU`f]h]Y

gh X]U'dfnYn`]bhYfbYh
H]di`XY`Wfg

i bY`Zcfa U]cb`Yb`][`bY

7\W]U Wma #7\W]U Wma `gh X]ck Uä'bU'DU`gk U
i`WY`b]`dfnYn`SSSSSSSSSS"
A Yb]cbYUhB`V]Xi fYUhB`gW]a Vi`hBi`XY`Yi dYf]Yb B

>Yj ci XfU]gja f]bgW]]fY'dci f`SSSSSSSSSS"

fYXYbE`gYa Ygf
8i fU`U`gh X]i`i`]Ébhf]c`i b]j Yfg]hUy`ghfB]bB

i b`gYa YgfY

W]mfc`_U`UXYa]W]
8i fU`U`gh X]i`i`]Ébhf]c`i b]j Yfg]hUy`ghfB]bB

i bY`UbbÅ`U`W`X`Åa]ei Y

>U_]Y`gä`c[fUb]W]Yb]U`k`Xc`g`ö`d]Y`Xc`nU`fi`Xb]Yb]U
X`U`gh`XY`b]i`k`3
`a`b`f`Y`U`B`X`Y`W`b`X`]Y`Y`X`Y`i`W`i`d`Y`b`f`i`gh`X`Y`b`]

E i Y`Y`g`g`c`b`h`Y`g`f`Y`g`f`W]i`c`b`g`Y`b`a`U]`Ä`F`Y`X`f`Y`a`d`c`]dci f`Y`g`
Å`i`X]U`b`h`g`3

⇒a][fU]Y Gh X]i



7 nma i gnō'XcglUfVnā'cfm[]bUby'Xc_i a YbhmVnm
k mglUfVnā'_cd]Y3

ªbhfYUWß'XUMß'U] b]y c]Y'gß'UXi V]XcW'a Ybh'Y'cf][]bU'Y'gU 'Vtd]] U'Y'UWg'cfU

9ghW'ei Y'Y'Xc]gj ci gZci fb]f'YgXcW'a Ybh'gcf][]bU i
ci 'XYgWtd]Yg'3

×U_]Y'gá'k Ufi b_] 'dfnmöV]U'bU'i W'Y'b]ö3

B YWgUf'Uhi bV]V'W'X'Ud']V] 'U'i b]j Yfg]hU'Y

E i Y'g'gcbh'YgW'X]h]cbg'Xf]bh'Á[fU]cb'XY'fii b]j Yfg]h'Á'3

7 nmichfnma Ua ']ghin'Zcfa U'bna 'dclt]YfXnYb]Ya
dfnmöV]U'bU'i W'Y'b]ö3

ªbhfYUWß'XUMß'j Y] 'df]a]'c'gW]gcUfY'XY'UWVd]hU'Y

9ghW'ei Y'Y'fW]j fU]i bY'cZ]Y'cZ]V]Y'Y'3

7 nmii W'Y'b]U'nUdYk b]U'nU_k U'Y'fck Ub]Y3

ªbhfYUWß'XUMß'i b]j Yfg]hU'Y'U'cZ]fß'W'hU'Y

@Y'c[Ya Ybh'YghUgg f'Á'dUf'fii b]j Yfg]h'Á'3

7 nmidfc[fUa 'gh] X]i k 'dfnYk]Xi 'Y'dfU'_hm_]
gh] XYbW_]Y3

ªbhfYUWß'XUMß'd'Ubi 'hßi 'XY'gh] X]] 'ja d']Vß']'c'dYf]cUXß'XY'dfUW]Vß

MU]h]`i bY'dÁ]cXY'XY'gU]Y'Xi fUbh'U'Zcfa U]cb'3

7 nm'U_c'gh] XYbhibU'k mā]Ub]Y'a i gnō'd U]ā'nU
gh] X]U3

ªbhfYUWß'XUMß'hYVi]Y'gß'd'ßY h] 'dYf]cUXU'XY'gh] X]i 'U'i b]j Yfg]hU'Y'U' [UhXß

E i Y'g'gcbh'YgZ'U]gi b]j Yfg]hU]fYgdci f'Yg'Ái X]Ubhg
ÁfU]b[Yfg'XUbgj chfY'i b]j Yfg]h'Á'3

K 'U_] 'gdcg] V'a c['ō'bUV]Y áVt' 'YXn]ā'dfcWg
fY_fi hUW]3

ªbhfYUWß'W'a 'dc]i fa B] 'dfc[fYg 'Ud']WU]Y] hU'Y

7 ca a Ybhdi]g 'Y'j c]f'cÖ'Yb'Ygha cb'Xcgg]Yf'XY
WbX]XUhi fY'3

×U_]Y'k mā U[]Ub]U'önm_ck Y'a i gnō'gdY b]á3

⇒bZcfa YUhß'hY'XY'b]j Y'i 'XY']a Vß'Wfi hdYbfi 'Udi hU'Z] 'UWVd]h'U'i b]j Yfg]hU'Y

E i Y' b]j YU' Yb'OUb[i YQYghXYa UbX'Á'3

×U_'Xn]U'U'gng]Ya 'SSSSSS'3

Gc']V]hß']bZcfa U]] 'XYgdY'g]ghYa i 'YXi WU]cbU

7 ca a YbhZcbW]cbby'Y'gng]Áa Y'SSSSSS'3

di b_hck m

H]di 'XY'g]ghYa

XYV]Á]hg

cWb]Ub]U

H]di 'XY'g]ghYa

XY'bctU]cb

⇒a][fU]Y Gh X]i



7nmXcghubō'k m_Uh'cWb']'nU]WY 'dc'nU_c WYb]i
k nā]Ubmgh XYbW]Y'3
^bfYUWβ'XUWβ] Y]df]a]'c'ZcU]Y'a Urf]Wē'β'U'Z]bUi `a cV]'hB]]

9ghW'ei Y'Y'fY'Ac]gi b'fY'Yj Å'XY'bchYg'¼U'Z]b'XY
`fÅWU]b[Y'i b]j Yfg]hU]fY'3

7\W]U Vna #7 \W]U Uvna 'Xck]YXn]Yā'g]ō'k]ōW'^c
a YrcXUW'bu W]Ub]U'
Gc`]W]hB']bZcfa U]]`XYgdfY'g]ghYa i `XY'dfYXUfY

7ca a Ybhgc'bh`Yg'a Åh.cXYgXfYbg]] bYa Ybh'3

7nmibU'i WY'b]dfck UXncbY'gá SSSSSSSSSSSSS'3
Gc`]W]hB']bZcfa U]]`XYgdfY'g]ghYa i `XY'dfYXUfY

MU.H]'`SSSSSS'3

k m_ UXm
H]di `XY'Wfg f]

XYgW'f] fga U.]gfU I

āk]WYb]U#]Ya]bU]fU
H]di `XY'Wfg f]

XYgg'Å]bU]fYg

_cbg `hUWY
H]di `XY'Wfg f]

XYg]fUj U I 'X]f]] Åg

_cbZfYbWY
H]di `XY'Wfg f]

XYgW'zbZ'fYbWg

>U_]Y'_i fgminbU'Xi 'ā'g]ō'k 'cZfV]Y'gn_c m`Yhb]Y'3
Gc`]W]hB']bZcfa U]]`XYgdfY'h]di f]'Y'XY'Wfg f]'cZf]h'XY' Wē']Y'XY'j UfB

E i Yg'W'f] fgjgc'bhX]gdYbg'Åg'¼fii b]j Yfg]hÅ'XfÅ'Å'3

?]YXmcXVnk U'ā'g]ō'Y[nLa]bnβ
^bfYUWβ'V'X'YgY'gYg]i bYU'XY'Yi La YbY

E i UbX'YgH'W'ei Y`Yg'Yi La Ybgc'bh`Yi '3

; Xn]Y'a c[ō'nbUY ā']bZcfa UW'buHYa Uh
k gnmh_]W'XcghōdbnW' dfnYXa]ch'k 3
^bfYUWβ'i bXY'dc]' [Bg]']bZcfa U]]`XYgdfY'Wfg f]

CÖ'g'f'fci j Ybh`Yg]bZcfa U]cbg]g f`Yg'W'f] fgX]g]dcb]V'Yg
3

7nmibU'i WY'b]'YghU_UXYa]W_]Y'Wb]fi a 'gdc]f'ck Y3
^bfYUWβ'XUWβ'Yi]gh'W'Wb]fi 'gdc]f]j 'Éb'WUXfi `i b]j Yfg]hB]]

MU.H]'`i b'Wb]fY'gdc]f]h]Zi b]j Yfg]hU]fY'3

>U_'a c[ō'ncghUā'W]cb_]Ya 'cf[Ub]nUW]
gh XYbW]W]3
^bfYUWβ'W'a 'hY'dc]'U'βhi fU'UgcV]U]]`cf'gh XYb Y h]

7ca a YbhYgH'W'ei f'cb'g]f]bgW]h'¼ bY'UggcV]U]h]cb
Åhi X]Ubh'3

⇒a][fU]Y Gh X]i

⇒Y'k nbcg] gnUW/b_ck m_cgnhi hfnna Ub]U'k 'ObUnk U E i Y 'Ygh'YWxhXY'Uj]Y'¼Q]'YO3
a]UgU3

7 YFY']bZcfa U]] XYgdfY'WXY'hi]Y']Y'XY'ÉbfY]bYFY'Yg]a Uhj Y'Éb'cfU

Gh X]i !'7i fg f]'XY''a V]'gfb]bY

Dc`cbYnB

: fUbWnB

>U_]W'õnm_ī k 'a c[ò'g]ōi Wnā'k 'DU gk Ugn_c`Y3

E i Y'Yg'Ub[i Yg'gcbhYbgY][bÅYgXUbgj chfY'ÅW'Y'3

Gc`]V]rB']bZcfa U]] XYgdfY''a V]'Y'gfb]bY'WYFY'gY'dchigi X]U'Éb'UW' Wbhfī

7 nmidfnYdfck UXnU'ā'DU gk c' hYghgdfuk XnU'āVn
nbU'ca c' ā'õnm_U3

MU[H]' i b' hYghidci f' XÅYfa]bYf' a cb'bj YU '3

ªbfYUWb'XUWb'Yi]gfb'i b' hYghXY'Yj Ui UFY'dYbhfī 'U']'gY'XY'Yfa]bU'bj Y'i 'XY''a VB

7 nma c[ò'dfnYb]Y ā'g]ō'bU'_i fg'c']bbma' dcn]ca]Yž
Y']' hYžbU'_h' fmi WōgnWlUa žb]Y'YghX'U'a b]Y
cXdck]YXb]3

9ghW'ei Y'Y'dYi I WUb[Yf'XYWUgg]'g'Y'bj YU 'bY'a Y
Wbj]YbhdUg'3

ªbfYUWb'XUWb'É]dc]'gW]a VU'bj Y'i 'Éb'W'hi 'Éb'W'Y'bi 'Y' h' a i ' i a]hXY'W'fg' 'dY'W'Y'É'ZFY'Y'Yb'Y'n]

7 nma U'ā'DU gk c' gnWY[Ī ck micd]g'_i fg' 3

MU[H]' i b'XYgW[dh]ZXÅU]'ÅXi Wā fg'3

ªbfYUWb'XUWb'Yi]gfb'c'XYgW]YfY'XY'U']UhB'U'W'fg' 'i]

>U_`]WbY'gā[fi dnB

E i Y'Ygh'Y'bca VFY'a U]a i a 'XfÅh X]UbrgdUf'WUggY'3

ªbfYUWb'W'Y'Y'gh'Y'bi a Bfi 'ā U]a 'XY'gh' XYb]'Ébhfī'c'WUg3

7 nma c' Y'a]'DUb#DUb]dck]YXn]Yā'k]ōW'c
XcXU'ck ma' k mōcgU Yb]i]'XcghōdbnW
i Xc[cXb]Yb]UW'k 'DU gk Ugn_c`Y3

E i Y'Yg]bgU'Uh]cbg'gcbh'¼X]gdcg]h]cb'XUbgj chfY'ÅW'Y'3

ªbfYUWb'W'ZUW]rB]'cZfB'Wbhfī `

7 nmign_c U'cf[Ub]ni 'Y'k nVYWn_]3

9ghW'ei Yj ci g'cf[Ub]gn'XYg'Yi W'fg]cbg'3

ªbfYUWb'XUWb'Wbhfī 'cf[Ub]nYUhB'XY'UgYa YbYU'Yi W'fg]]

>U_]Y'_i fgma U'ā'DU gk c'k 'cZYfWY3

E i Ygdfc[fUa a YgcZFY'n]j ci g'3

ªbfYUWb'W'Z' 'XY'dfc[fUa B'Y'cZYf]rB

Gh X]i !'6i fgY'XY'gh X]i

Dc`cbYnB

: fUbWnB

⇒a][fU]Y Gh X]i



7\WU Vna #7\WU Uvna `Xck]YXn]Yā:g]ō`k]ōW^c
a c `]k c WUW`c]fnna Ub]Uk gdUWU]Z]bLbgck Y[c"
Gc`]W]B`]bZcfa U]]`XYgdY`dcg]V]]]B]`XY Z]bLb UfY

>Yj ci XfU]gja YfYbg]Y] bYf`g f`Yg]dcg]V]]]HAgXY
g Vj Ybh]cbg

; Xn]Y`a c[ōi V]Y[Lā:g]ō`c`dca cWZ]bLbgck á3
`b]fYUW]B`W`cf[Ub]ga Y`É`]`dchZ]bLb U`gh X]]`Y

E i Yg]cf[Ub]ga YgdYi j Ybhg Vj Ybh]cbbYf`a Yg`Áh XYg]3

7\WU Vna #7\WU Uvna `i V]Y[Lā:g]ō`c
SSSSSSSSSSSS"
A Yb]cbYU]B`V]B`U]`bYj c]Y`XY`U]`hcf`Z]bLbW]Uf

>fU] VYgc]b`Xfii bY`U]XY`Z]bLbV]ÁfY`dci f`SSSSSSSSSS"

dca cWk `cd UWb]i `W]YgbY[c`#g]m]YbX]i a `bU
cd U]m]U`gh X]U
DYb]fi `W`U]`bYj c]Y`XY`U]`hcf`Z]bLbW]Uf

`Yg]Z]U]g]Xf]b]g]V]d]h]cb

dca cWk `cd UWb]i `k nXU]_] k `bU` n]WY
DYb]fi `W`U]`bYj c]Y`XY`U]`hcf`Z]bLbW]Uf

`Yg]Z]U]g]XY`g Vg]g]U]bW

dca cWZ]bLbgck á`nk]án]U]á`n`cd]Y`_á`bUX
Xn]YW]Y]Ya #Xn]Yāa]
DYb]fi `W`U]`bYj c]Y`XY`U]`hcf`Z]bLbW]Uf

`U[U]fXY`Xf]b]Z]b]g

7\WU Vna #7\WU Uvna `Xck]YXn]Yā:g]ō`U_]Y
g]m]YbX]U`gá`Xcg]ō`bY"
`b]fYUW]B`W`Z`XY`Vi fgY`XY`gh X]i `g`bhX]gdcb]V]`Y

E i Yg]m]Yg]XY`Vci fgY`gcb]X]gdcb]V]Yg]3

Gh X]i !`J U]XUfYU`gh X]]`cf`Éb`g]f]B]b]B]U]Y

Dc`cbYn]B

: fUbWn]B

7\WU Vna #7\WU Uvna `bcg]fm]Z]_ck Lā`a `^Xn]d`ca
k `U]h]k U`_f]U]`Q
A Yb]cbYU]B`V]B]j fY]`g]B]]`W]W]j U]Yn]`W]f]h]Z]W]h]`XY`gh X]]`Éb` U]f]U]XY`XY`gh]b]U]Y

>Yj ci XfU]g]Z]U]fY] U]XYf`a cb`X]d`Éa Y`Yb`U]U]h]g]Q

7`n]ia U`á`DU`g]k`c`]`g]ō`h]i`a`W]m]d]f]n]g]ō[`n]W
`ō`n]m]_U]U]h]k`U`_`ō`n]m]_U]B
`b]f]Y]U]W]B`X]U]B]Y]]g]B`c`]`g]B`W`f]U]X]i`V]B]hcf]`U`hcf]n]U]`Éb`]a`V]U]XY`W]f]U]`bYj`c]Y

5j Yn]j ci gi bY`]ghY`XY`f]U]X]i`W]m] fg]U]g]Y]f]a`Ybh]Á]gdci`f`Y`#]fi`
O]U]b]i`Y]Q]3

; Xn]Y`a c[ō`Xcg]U]á`n]U`k]U]X]W]Y]b]Y`c
f]i`k`bck`U`bc`W]a`c`Y[c`Xn]d`ca`i`3
`b]f]Y]U]W]B]i`bXY`dc`]`cV`]bY`i`b`W]f]h]Z]W]h]XY`W]W]j`U]U]fY

C]O]d]Y]i`H]cb`g]Y`dfc]W]f]Y]f]i`b`W]f]h]Z]W]h]X]f]Á]ei`]j`U]Y]b]W`3