

>Y`Ybh_YnÅg

A chj 1Wj g`Yj Å`

A chj 1Wj g`Yj Å`! ? YnXÅg

bÅa Yh

GY\F[Y\fhYf' < Yffž
<]j Uu cgž ZÅFZ] VĚa nYhtž]ga YfYhYb`bÅj

a U[nbf

H]grhYhi fUa °

GY\F[Y\fhYf': fU ž

<]j Uu cgžb] VĚa nYhtž]ga YfYhYb`bÅj

H]grhYh< Õ[nYa °

GY\F[Y\fhYf' 8La Yb`i bX' < YffYbž

<]j Uu cgžVĚa nYhtbYj Y`Åg`bYa Y`]ga YfYhYb

H]grhYh< Õ[nYa `i fUa °

GY\F[Y\fhYf' 8La Yb`i bX' < YffYbž

<]j Uu cgžh`OW`VĚa nYht

H]grhYh< Õ[nY]a # fU]a °

GY\F[Y\fhYf' 8La Yb`i bX' < YffYbž

<]j Uu cgžVĚa nYhtY`_bYj Y`Åg`bYa Y`hY`YgYb`]ga YfYhYb

H]grhYh< Õ[nY]a # fU]a °

GY\F[Y\fhYf' < Yff`GWA]Xž

<]j Uu cgž ZÅFZ] VĚa nYhtž]ga YfhibÅj

H]grhYhGa]h`q]f°

GY\F[Y\fhYf': fU `GWA]Xž

<]j Uu cgžb] VĚa nYhtž` \ ½Ugž]ga YfhibÅj

H]grhYhGa]h`bÅGa]h`5ggncbñ

GY\F[Y\fhYf': fU `GWA]Xž

<]j Uu cgžb] VĚa nYhtžY[mYXØ ½`i ž]ga YfhibÅj

H]grhYhGa]h`5ggncbñ

GY\F[Y\fhYf': fU `GWA]Xž

<]j Uu cgžb] VĚa nYhtž]ga YfhibÅj ž]ga YfYhYb`VgU ½] ½`Udch

H]grhYhGa]h`5ggncbñ

@YVf' < Yff`GWA]Xž

? Yj ÅgVÅ`j Uu cgža ½`fÅ[YW`i HUj Ub`Ø`Yh`_UdVg`Uh

? YXj YgGa]h`>c\b°

<]Yfa]hVYk YfVY`]W`a]W`i a `X]Y`GHY`Y`Ug`""žX]Y
G]Y]b`""j ca `""U g[YgWf]YVYb` \UWYb"

GhUbXUFX`Zcfa i `UY[mc`mlub`½`½`fU]Ua YnbY`_U`]fXYhÅg`hY[m`Ög]½`VUb`j U[mia U[Uh]bVUb` ½`hUX

`GnYfYbÅ`_`Y`Ybh`Yrb]U`""dcrE]fU]Ua Yn]_U
""!VUb#Yb`j c`h`]fXYj YU`""bUdcb"

6Yni [bY\ a YbX`U Z`⇒fY`5bnY][Y`U Z`""gWfY]VY`]W
⇒bYb`""

GhUbXUFX`Zcfa i `UY[mcb`]bY`\]fXYhYh]½`½`fU]j ½`Ugnc`½`cf

5`"""\]fXYhYh]dcrE]fU]gnYfYbÅ`_`Y`Ybh`Yrb]""

>Y Ybh_YnĀg A chj 1Wj g`Yj Ā



6Yni [bY\ a YbX`U Z≡fY`5 bnY][Y`]b`""""j ca`""
GHubXUFX`Zcfa i`U`UbbU`_Ya U[nUf1/21/2]Uz`c[m\c`hU 1/2hU`Ua Y[\]fXYHh1/21/2gh

5`""bUdcb`a Y[`Y Ybh\]fXYHĀg`_Y`_UdVg`UHVub`Ē`c`""
GHubXUFX`Zcfa i`U`UbbU`_Ya U[nUf1/21/2]Uz`c[m\c`hU 1/2hU`Ua Y[\]fXYHh1/21/2gh

A]h[fc»Ya `bhYfYggY`\UWY]W`≡fY`5 bnY][Y`Z0f`X]Y
Dcg]h]cb`Y]bYg`YfZU`fYbYb`""""]b`XYf`5 i`g[UWY`""""j ca`
""""[Y`YgYb`

B U[mĀfXY`_` XĀggY`c`j UghUa`_U`\]fXYHĀg`_YhU
""!Vub`#Ybž`c[mY[m`""gnU`_Ya VYfh`_YfYgbY`_""

GHubXUFX`Zcfa i`U`Y[mc`mub`1/21/2]fU`Y`Ybh_YnĀg`cfz`La Y`mYhY[mia U[Uh]bVub`j U[m\Yh`UdVub`1/21/2

5 i ZXUgj cb`≡bYb`U`g[YgWf]YVYbY`GH`Y`bUb[Wch
VYk YfVY]W`a`jW`[YfbYžk`Y]`""

GnYfYtbĀ`_`Y`Ybh_Yrb]`_U`a`Y[\]fXYHhdcnĒ]fU`a`]bH`""

GHubXUFX`Zcfa i`U`1/21/2]Y`Ybh_YnĀg`cf

≡W`VYk YfVY`a`jW`i`a`X]Y`GH`Y`U`g`""

GnYfYtbĀ`_`Y`Ybh_Yrb]`_U`""dcnĒ]fU`

GHubXUFX`Zcfa i`U`1/21/2]Y`Ybh_YnĀg`cf

8 YfnY]hUfVY]H`]W`Z0f`""Ni`_a`Y]bYb`5 i`Z[UWyb
nĀ`\`Yb`""

>Y`Yb`Y[`U`""Xc`[cnca`ž`La`]`U`_`Ā`_Yh_Yn`_ZY`Y`ggĀ[]
_Āf`Ā`_YhUfU`U`a`U`mU`""

B`nj`h`_a`cbXU`h`Ābh`U`gnb`1/21/2`_U`Y`Yb`Y[]`Zc[`U`_cn]g]`1/2`Udch`YĒ]fU`

A chj 1Wj g`Yj Ā !`Yfj`YĀg

bĀa`Yh

a`U[`nUf

8]Y`GH`Y`]g]Z0f`a`jW`j`cb`[fc»Ya `bhYfYggYžk`Y]`""
5`bbU`_`U`a`Y[a`U[nUf1/21/2]Uz`c[mia`]Āf]gnYfYtbĀX`_U`h`U`Xcthia`i`b`_`1/2

?`Ā`Ā`Ā`Yb`ĀfXY`_Y`_Yn`U`a`i`b`_`U`ž`a`]j`Y`""

;`YfbY`k`ĀfXY]W`Z0f`G]Y`UfVY]H`bž`i`a`""

GnYfYtbĀ`_`2`b`Ā`_`bY`_`Xc`[`cnb]`_U`Āf]hž`c[`m`""

5`bbU`_`U`a`Y[a`U[nUf1/21/2]Uz`c[mia`]Āf]gnYfYtbĀX`_U`h`U`Xcthia`i`b`_`1/2

Ni`_a`Y]bYb`_GhĀf`_Yb`nĀ`\`Yb`""

9f`ggĀ[`Y]a`_`""

5`Y[Zcb]tc]gUW`_h`_U`Xcb]g]fU]X`YĒ]fU`_cf

≡W`XYb`_Yž`ni`_a`Y]bYb`_GhĀf`_Yb`nĀ`\`Yb`""5`VYf
]W`_UfVY]H`_XUfU`bž`a`]W`_]b`X]YgYa`_6`YfY]W`_#X]YgYb
6`YfY]W`_Yb`ni`_j`YfVYggYfb`

;`mYb[`YgĀ[`Y]a`_`Ā`_Ā`_hUf]hcn]`_hU`_1/2bž`c[`m`""8`Y`YnY`_Yb`_U
hYf`Ā`_Yh`_Yb`_gnYfYtbĀ`_ZY`^`Xb]`

I`hU`1/2]U[`mYb[`YgĀ[`Y]XfYž`XY`UbbU`_`a`i`hU`1/2]Uz`c[`mgnYfYtbĀ`_YnY`_Yb`_U`hYf`Ā`_Yh`_Yb`_ZY`^`Xb]

≡W`Y][`bY`a`]W`Z0f`X]YgY`Dcg]h]cbžk`Y]`""

5`_`U`a`U`gj`U[`nc`_`U`dcnĒ]fU`ž`a`]j`Y`""

5`bbU`_`YĒ]fU`_Uz`c[`mia`]h`_`j`U[`mĀ`_`Y`Ybh_Yn`_`U`a`i`b`_`1/2

>Y Ybh_YnÅg



A chj 1Wj g`Yj Å`

Nk Uf_Ubb`jW`_Y]bY`9fZUfi b[`]b`"j cfk Y]gYb/
XUZOf`UWY`jW`"''

< UV½`b]bVg`_cf½W]`hUdUgnTU`Uca`U`"ZXY`Xc`[`crtUa
a`½`"''

5a]_cf`a`Å[`bYa` `Xc`[`crt½U`h`UXc`h`hYfØ`YHbZ`XY`gnYfYb`ÅX`VYa`i`hUhb]`U`a`½g`hYfØ`YH`Yb`gnYfnYHh`hUdUgnTU`hUj]XU`h

A Y]bY`VYfi Z]WYb`E`i`U]Z]_U]cbYb`Yb`gdfW`WYb`XYb`
5 bZcfXYfi b[Yb`≠fYgI` bYfb`Y`a`Ybg`

GnU_a Uj`_`ÅdYg`f`ÅgYa`#`_`ÅdYggÅ[Y]a` `a`Y[ZY`Y`bY`_`Uj` ½`U`U`h`
Yj`½`½g]bU`"'

5 bbU`_`U`Y`f`½g]½LZ`c[`mia` `]`mYb`_`_`ÅdYggÅ[Y`_`hYgnbY`_`U`_`U`a`Ugg]½U`a`i`b`_`½L`U`

K Å`fYbX`a`Y]bYf`NY]h`U`g`"`\UWY`jW`a`Y]bY`
? Yb`b`b]ggY`j]b`"j`YfVYggYf`h`#Yfk`Y]hYf`h`#j`Yf]h`YZH`

5a`É`"'"`!`_`ÅbhXc`[`crtUa`z`ZY`^`XHYa`#`_`j`j`É`YHYa`U`
h`X½gca`U`"''

9[mU`X`c`h`hYfØ`YH`b`gnYfnYHh`hUdUgnTU`h`VYa`i`hU]½gU`Åg`U`_`_`ÅdYggÅ[`Ö`_`_`ÅdYggÅ[Y`_`#i`X½g`gnYfn`Åg`ÅfY`

A Y]b]: UWX`[`W]Yh]g`"''

GnU`_`hYfØ`YHYa`U`"''''

5 bbU`_`Y`f`½g]½LZ`c[`mia`Y`m]`_`_`hYfØ`YH`b`j`UbbU`_`U`Y[`bU[`nc`W`YfYXa`ÅbmY]Xz`hUdUgnTU`hUj]X`

K Å`fYbX`a`Y]bYf`5`fVY]h`VY]`"V]b`]W`]b`"''`g`Y`f`
gUW`_`i`bX][`[`Yk`cfXYb`"''

5a`É`U`"''`Xc`[`crtUa`z`a`U[`Ug]b`_`_`ÅdnYH`Åj`½`hUa`U`"''''

9[mU`X`c`h`hYfØ`YH`b`gnYfnYHh`hUdUgnTU`h`VYa`i`hU]½gU`Åg`U`_`_`ÅdYggÅ[`Ö`_`_`ÅdYggÅ[Y`_`#i`X½g`gnYfn`Åg`ÅfY`

5 i`W`_`j]b`g`f`Ygg][`Yb`G]h`U]cbYb`j`YfbUW`_`Ågg][`Y]W`
b]W`h`Gcf[`ZU`h`i`bX`;`YbU`][`_`Y]h`8`U`Y`f`k`ÅfY`]W`
VYgcbXYfg]`YY][`bYh`ZOf`X]Y`5`bZcfXYfi`b[`Yb`U`g`"''

5a`]_`cf`[`nc`f`g]b`_`Y`Y`h`Xc`[`crtbca`bU[`m`b`nca`½g]U`U`h`
gYa`_`U`b`n]c`c`hUa`Y`U`d`c`b`h`c`g]½`c`h`Åg`Ö[`m[`c`b`Xc`ca`z`
`c[`mYa`]U`h`i`Ø`Ö`b`Ö`g`_`_`Åd`Yb`U`_`U`a`Ugj`U[`nc`_`U`"''''

5 bbU`_`Y`a`U[`mU`f`½g]½LZ`c[`mia`]Åf`h`Y`b`b`Å`_`_`i`U`h`½`½g]U`U`_`cf`½W]`a`i`b`_`hUdUgnTU`hUj]X`U`U`d`½b`

5 i`W`i`b`hYf`6`Y`Ug]i`b[`V`U`U`H`Y`]W`_`c`Y`
E`i`U`]h`Ågg]h`b`X`U`f`X`g`VY]`"'

B`U[`m`b`nca`½g]U`U`h]g]_`_`ÅdYg]j`U[`nc`_`a`U[`Ug]g]f`b]j`cbU`cb`
Xc`[`crtb]`"'

5 bbU`_`ÅfnÅ`_`Y`hY`Åg`ÅfY`Z`c[`m`_`_`ÅdYg]j`U[`mia`U[`Ug][`ÅbnY`Y`h`h`a`Ugnh`i`_`_`Ö`f`b`n`Y`h`Y`b`Xc`[`crtb]

Gca`J`h`k`Ø`f`Y`g]W`_`ZOf`a`]W`X]Y`;`Y`Y[`Yb`Y]h`
Yf[`Y`Y`b`z`a`Y]bY`≠`hYfYggYb`a`]h`X]YgYf`Dcg]h`cb`ni`
j`Yf`b`Ø`d`Z`b`"'

¶`m`Ö`g]nY`_`U`d`V`g`_`_`U`h`b`½a`U`gnY`a`Å`m`Y`g`Å`f`XY`_`X`Å`g]`
``Ö`f`Öa`Y`h`i`U`gnU`_`a`Uj`Y`Y`n`Y`h`_`Y`X`Å`g`Ya`a`Y`"'

5 bbU`_`VYa`i`hU]½g]½LZ`c[`mignYa`Å`m`Y`g`Yb`]g]bU[`nc`b`Å`f`XY`_`Xgn`U`a`i`b`_`U]f`½b`h`

≠W`]b`hYfYgg]YfY`a`]W`[`U`b`n`V`Y`g`c`b`X`Y`f`g`ZOf`X]Y`gY`
G`h`Y`i`b`X`k`Ø`f`Y`a`]W`g`Y`f`Ø`Y`f`X]Y`;`Y`Y[`Yb`Y]h`
Z`f`i`Y`b`z`]b`X`Y`f`Ni`g]a`a`Y`b`U`f`VY]h`a`]h`≠`b`Y`b`a`Y]b`
K`]gg]Yb`ni`Y`f`k`Y]hYfb`"'

¥`Å`b`_`Y`b`Å`f`XY`_`X`Öa`U`"''''`Å`g]bU[`nc`b`Å`f`h`Å`Y`b`Åa`U`
`_`Y`Y`h`gÅ[`Y`h`Z`c[`mU`h`i`X½gca`U`h`V`j`É`g]Ya`U`h`²`b`Ø`_`Y`j`U`I`
``Ö`n`Ö`ga`i`b`_`U`g`c`f`½b`"'

5 bbU`_`VYa`i`hU]½g]½LZ`c[`mignYa`Å`m`Y`g`Yb`]g]bU[`nc`b`Å`f`XY`_`Xgn`U`a`i`b`_`U]f`½b`h`

A chj 1Wj g`Yj Ā`

K]Y'G]Y'a Y]bYa `VY][YZØ[hYb`@VYbgU Z
Ybfb\A Yb`_ĀbbYbžYbhdgfVWYb'a Y]bY'9fZUfi b[
i bX'a Y]bY'E i U]Z]_U]cbYb`XYb`5 bZcfXYfi b[Yb
X]YgYf`Dcg]h]cb"

5a]bh`1Wj U]U'U'VgUhc`hĀbĀYfU'mca VUbžU
HudUgrUUrca `ĀgUgrU_a U]`_ĀdYgĀgYa `a Y[ZY'Yb_Y`
dcrĒVj`Yj 1WjU]bU`"

5 nĀbĀYfU'ncX`_] \Ub[gÖncn1Wj_cĀgUbbU`_ĀfnĀ`Y hĀgĀYž\c[ma Ybbm]fY`]]`YbY`cnm1Wj`Yn`Ua i b_U

A Y]bY`XYfnY]h[Y`Dcg]h]cb`Ug`""V]YhĀia]f`X]Y
; YY[Yb\Y]ž]b`Y]bYa `Uogdfi Wg c`Yb`i a ZY`X`ni
UfVY]hYbžk c`X]Y`Yb[Y`Ni gUa a YbUfVY]hĀia]hĀ Y]bYb
? c`Y[Yb`i bj Yfn]W]hUf`]gž`i a] YfY]bVUfĀ': f]gYb
Y]bni `U`hYb"

>Y Yb`Y[]`dcrĒVj` a VUb`a]bh`""Y`Yh gĀ[Ya `j Ub
a Y[HudUgrU]b]ž\c[ma]`mYb`bU[mibmca 1WjU]hž
VgUdU]U`Xc`[crb]žU`c`_`Āzcbrcgg]1WjÖU`c`_Ā[1/2_U
Y[nĀhĀ `ĀXb]U`U`h]X`_`hY`YgĀgĀ`Yn`"

5 bbU`_`YfĀg]U]ž\c[ma]`mYb`h`X]g]g]h]c]1/2`Y`U`Y`Yb`Y[]`a i b_1Wj`gcf1Wj

Ni gĀm`]W`ni `a Y]bYb`J YfUbk cfh]W`_Y]hYb`U`g`""
\U`Y]W`U`W`:`_Ā\][`_Y]hYb`]b`""Yfk cfVYb"

5`""ZY`Y`gĀ[]`_ĀfĀa Āb`ZY`Ø`ZY`^`XhYa`U`_Ā`Yh`Yn
hYfØYh`Yb`]g`""

9i hfU`_ĀdYgĀgĀY`_#i X]g`_YfĀg]U]žUa]_`YhU`Y`Yb`Y[]`1/2`1Wj`Xcb`_YfYgrĀ`g]U]h]c]1/2`Y`ĀgžUa]_`bYa`ZY`hĀhYbØ`ZØ[]`bY`
ĀggY`gncfcg]b`U`Zc[]`U`cn1Wj`dcrĒVj`XXU

A chj 1Wj g`Yj Ā`! ? ĀdYggĀ[Y_#_ĀgrgĀ[Y_ bĀa Yh

a U[nbf

"""]gĀia Y]bY`A i hYfgdUfUWY/XUfØYf`\]bU`g`gdYfWY
]W`""

5 bntubmYj Ya `U`""ZY`VYgnĀ`Y`_`""

5 n`UbtubmYj YX`Āg`U`h`Y[nĀV`Zc`mĀ`cbmtub`VYgnĀ`hibmYj Y`_`YfĀg]U]žU

≠W`j YfZØ[Y`ØYf`gVf`[i hY`? Ybbhb]ggY`]b`""

A U[Ug]n]bhYb`VYgnĀ`Y`_`""

B Ya `UbtubmYj]žXY`a U[Ug]n]bhYb`VYgnĀ`hibmYj Y`_`YfĀg]U

≠W`VYg]hY`gc`]XY`; fi bX`_Ybbhb]ggY`]b`""

? ĀnĀdgn]bhYb`VYgnĀ`Y`_`""

B Ya `UbtubmYj]`Āg`_ĀnĀdgn]bhYb`VYgnĀ`hibmYj Y`_`YfĀg]U

≠W`j YfZØ[Y`ØYf`"""]>U`fY`9fZUfi b[`U`g`""

"""]Ā` `a i b`_U`HudUgrU`U`U`fYbXY`_YnYa`U`""

9[mU`XchhĀh`Yh`hYfØ`YhYb`gnYfnYh`HudUgrU`U`U`X`_`YfĀg]U]žU

≠W`j YfZØ[Y`ØYf`[i hY`? Ybbhb]ggY`]b`""

HudUgrU`h`""ZY`\Ugrb]1/2`j U[nĀ`_`"

Gn]Ā` Ēi [ĀdYg]gncZj Yf`]ga YfYh`_`VYa i hU]g]U

≠W`XYb`_YžXUgg]W`ØYf`X]Y[Y]Y[bYh`? ca V]bU]cb
U`g`""i bX`"""] YfZØ[Y`"

¶[m[cbXc`ca ž\c[mU`""ĀgU`"""]a Y[ZY`Y`
ca V]b]Wj``1Wj`U`fYbXY`_YnYa`"

5 bbU`_`YfĀg]U]ž\c[ma Ybbm]fY`_]Y[mYbgÖncnchU`_`U`_ĀdYgĀ[Y]X

>Y Ybh_ YnÅg A chj 1Wj g`Yj Å`

U g[YnY]WbYHY? ca a i b[_U]hcbgZÅ\][_Y]HYb ? Jj 1/2 `ca a i b[_W]j g_ÅngÅ[
-bZcfa 1Wj _a Y[cgnh]U'Åg'V]ncbncg'Xc`[c_`Y'a U[nUF1h]U'U_c`Å[1/2bU_

gM`i ggZc`[YfbXYg'8 Yb_Yb 8YXi _Hj` Åfj YÅg
6]ncbncg'Xc`[c_`a Y[ÅfÅg'Y'Åg[ncf'g'Åg'\U'Å_cbmY'a U[nUF1h]U

`c[]gMYg'8 Yb_Yb @c[]i g[cbXc`_cX]g
5n_Y_ÅdnY'ÅgY_#ChYHY_`dfV]h'Åg'f`_`1/2[cbXc`'hia Ĩ Xcbj UĨ`gnYf_Ygnh'Åg'Z`OggYfU_1/2U

UbUntjgMY: Å\][_Y]HYb 5bU]H_i g_ÅngÅ[Y_
? ÅngÅ[`U'Xc`[c_`fÅgn`YHYg'ÅfÅ`_Y'ÅgÅfY

\c\Y'gcn]U'Y? ca dYHYbn >Ĩ`]bhYf dYf'gncb1/2]g_ÅngÅ[
5`_c`Å[1/2_U'j UĨ` \U'Å_cbmY[n0]ha _OXÅg'Åg'_ca a i b[_W]j fUj UĨ` :_ÅngÅ[

J Yf\UbX'i b[g[YgM]W >Ĩ` h1E[nU'1/2] _ÅngÅ[
A 1/2j 1/2U'Uhc__U'j UĨ` \U'Å_cbm]0h`YHY'Åg]'_ÅngÅ[`

DfÅgYbhU]hcbgZÅ\][_Y]HYb 9` UXi` _ÅngÅ[#DfYnYbh1W]j g_ÅngÅ[
5`_ÅngÅ[ž\c[m]gc_`Ya Vyf`Y` h1i_ÅdYg'\U'Å_cbn]ub`Y` UXb]'Uh`Ch`YHY]h

A chj 1Wj g`Yj Å`! @Yn1E1/2g

bÅa Yh

⇒W`V]b`cW'a chj]Yfhi bX`ZfYi Y'a]W`U`Z`X]Y
j]Y`gY]H[]Y`HÅH[]Y]h`X]Y'a]f`Y]bY`Dcg]h]cb`]b`⇒fYa
l`bhYfbY\`a Yb`V]Yh]b`k`ØfXY"
@Yn1E1/2g1/2`a Y[]ga`Åh`j`Yž\c[mia`Ybbr]fY`gnYfYhÅ`Uj`1/2U'UhbU`_Xc`[cnb]

a U[nUF

BU[ncb`a chj 1/2hj U[nc_žÅg'Øf`Oa`a`Y`j`Å[YrbÅa`U`
j`1/2hcn]Uhcga`i`b_1/2ž`La`Y`mYh`2`b`Q_`1/2U`_`Éb`1/2hdcnÉ]j`
bn`O`h`U`h

⇒W`g\Y`X]Y`bYi`Yb`5`i`Z[UWyb`#X]YgY`Dcg]h]cb`U`g
k`j`_ca`a`YbY`<`YfU`gžcfXYfi`b[žU`Z`X]Y`]W`a`]W`
ZfYi`Y`

¶Ĩ`^`_]\Ĩ` 1/2g`YbbY`gn1/a`ca`fUYn`U`dcnÉ]j` žLa`Y`mYhia`1E
bU[ncb`j`1/2c`_"

@Yn1E1/2g1/2`a Y[]ga`Åh`j`Yž\c[mia`Ybbr]fY`gnYfYhÅ`Uj`1/2U'UhbU`_Xc`[cnb]

⇒W`k`ØfXY`a`]W`g\Y`f`ØYf`X]Y`;`Y`Y[Yb\Y]h`ZfYi`Ybž
k`Y]hYfY`8`YhU]`g`ni`XYf`Dcg]h]cb`a`]h`⇒b`Yb
dYfg`Cb`]W`ni`VYgd`fW`Yb"

5`a`Ybbr]W`b`~`Y`h`gÅ[]`Ub`f`1/2g`Ĩ`Yg`W`Yb`W`gnÅ`bÅa
a`Y[`2`b`Q_`Y`U`h`c`j`1W]`f`Ågn`YHY`_`YhY[m]gnYa`Å`nYg]bhYf`'O`
_`YfYhÅ`Yb

@Yn1E1/2g1/2`Z`j`j`_`Ub]ub]`Y[m`Y`Y`h`gÅ[Yg]bhYf`'Ch

>Y Ybh_ YnĀg

A chj j Wj g` Yj Ā`

5 bVY`Yf\U Hrb`G]Y`a Y]bYb`@WYbg`U Z`
GhUbXUFX`Zcfa i `U`UbbU_`Yf`g]Lz`c[mU`7J `U`Vg]Uc`a` ĩmVUb`hU`½`U`

5 n`ĀbĀ`Yf`U`mca` Uhi`U`Vg]Uc`a` ĩmVUb`hU`½`U`

5 i ZK i bgW`gYbXY`]W`≡`bYb`[YfbY`X]Y`NYi` [b]ggY`
j`cb`""`ni` "
GhUbXUFX`Zcfa i `U`UffLz`c[mibn]rcthj`U`[mifZYfYbW]½`UX`½`g]U

5 a`Yobn]mYb`gn`gĀ`[Yg`h` Xc`_`fYZfYbW]½`c`[m]`crnb`]U`""`

NYi` [b]ggY`_`ĀbbYb`VY`]""`"Ub`[YZcfXYfhk`YfXYb`"
5`bbU_`Yf`g]Lz`c[mih`Xgn`c`cnb`]fYZfYbW]½`gĀ`c[m_]h`_`YfYggYbY`_`ĀfhY`

F`YZfYbW]½`!`h``#`_`_`Āf`YfbY`_`"

:`Āf`Y]b`J`cfdY`i`b`[g]`YgdFĀW`gh\Y`]W`Ua` ""`ni`f`
J`YfZĀ`i`b`["`
5`bbU_`U`h`Xca` ĩg`_`UX`½`g]Lz`c[mignUWUX`j`U`[miY`[m]bhYf`ĀfU`

Gn`½`ca`fUY`[m]bhYf`Ā`a`Y`[ZY`YbY`U`""`

J`]Y`Yb`8`Ub`_`ZĀf`≡`f`≡`bhYfYggY`"≡`W`k`ĀfXY`a`]W`g`V`f`
ĀYf`X]Y`;`Y`Y`[Yb\Y]hZfYi`Ybž`G]Y`]b`Y]bYa`
dYfgĀb`]W`Yb`;`YgdFĀW`XU`cb`ni`ĀYfnYi`[Ybž`XUgg`
]W`XYf`[Y]`[bYH`?`UbX]XUhZĀf`X]Yg`Dcgl]h`cb`V]b`"
6]hY`_`cbhU`h]YfYb`G]Y`a`]W`dYf`""`
5`dfYZfYbW]½`hY`Āf`Yh`gĀ`[Y`_`a`Y`[UX`½`g]Lz`c[Āg]U`Y`Yb`h`_`YnĀg`½`bĀnĀgĀĀfhia`Y`[_`ĀgnĀgĀY`_`cf`\`Ugnb`½`Lhcg`

?`ĀgnĀbĀ`Ā`U`h`]XY`Ār`L`a`]hU`Y`Yb`h`_`YnĀg`Ya` ĩbĀnĀgĀfY`
gnYb`hY`h`F`Ya`Ā`Ya`ž`L`c`[m`Ygn`Y`Yh`gĀ`[Ya`gnYa`ĀnYgYb`]g`
]ZY`hYb]ž`L`c`[mā`]Āf`h`j`U`nc``U`_`U`a`Ug]U`d`cnĀ`V]fU`
?`Āf`Ya`U`_`Ā`Yh`_`Yn`Y`Āf`Yh`gĀ`[Yb`_`YfYggYb`""`

A`]hZfYi`bX`]W`Yb`;`fĀ`Yb`
<]j`U`U`cgž`VĀ`nYthibY`Y`]ga`YfYhYb`

H]grhY`YthY`ž`

A`]hZfYi`bX`]W`Yb`;`fĀ`Yb`
<]j`U`U`cgž`gnĀ`Yg`_`ĀfYb`\`Ugnb`½`ž`]ga`YfhVĀ`nYth`

H]grhY`YthY`ž`

<cVWUW`h`b`[g`c```
<]j`U`U`cgž`bYa`Ā`Ā`Y`hYf`YX]ž`]ga`YfhVĀ`nYth`

H]grhY`YthY`ž`

<Yfn`]W`Y;`fĀ`Y`
B`Ya`_`j`U`U`cgž`Ān`Yh`dUfhbYfY`_`_`ĀnĀhž`U`_]`hY`[Yn`XbY`_`

,`Xj`Ān`YthY`ž`