



LING5035

GYa Ubh]Vg'UbX'DfU[a Uh]Vg

HYfa 'H\fYY'##'&\$&\$

7ci fgY`Cj Yfj]Yk

GHJZ7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]	5j U]UV]]m	@cW]h]cb	D\cbY
8YVfU`5Ufcbg	X"UUfcbg4 i bgk "YXi "Ui	GYbX`Ya U]`h]`a U_Y Ub`cb`]bY Uddc]b]a Ybh	A cfj Yb`6fck b &) \$	7cbHJW]j]U Ya U]

7ci fgY'8YHJ`g

7fYX]hDc]bmg *`

Gi a a UfmicZh\Y'7ci fgY

h\]g`Wci fgY`mci `k]`YI d`cfY`h\Y`bUhi fY`UbX`gWc`dY`cZgYa Ubh]Wg`UbX`dfU[a Uh]Wg`UbX`h\Y]f`d`UW`k]h]b @]b[i]gh]Wg`Hcd]Wg]b`gYa Ubh]Wg]bW`XY. `h\Y`bUhi fY`UbX`UbU`mg]g`cZ`YI]WU`a YUb]b[gzh\Y`fY`Uh]cbg\]d VYhk YYb`a YUb]b[`UbX`Wc[b]h]cbzh\Y`fY`Uh]cbg\]d`VYhk YYb`gYa Ubh]Wg`UbX`[fUa a Ufz`UbX`gYa Ubh]W W\Ub[Y`Hcd]Wg]b`dfU[a Uh]Wg]bW`XY. `gdYYW\`UW`h\Y`c`fmz`dc`]h`b`Y`gg`h\Y`c`fmz`]a`d`]WU`h`fY`UbX` dfYgi ddcg]h]cb`Mci `k]`Uj Y`h\Y`c`ddcfh`b]m]h`c`Yb[U[Y`k]h\`UbX`UbU`mgY`[Ybi]bY`]b[i]gh]WXU`U`Mci k]`Udd`m`h\Y`gY`]XYUg`bchcb`m]h`c`9b[`]g\`z`Vi`h]h`c`h\Y`f`Ub[i U[Yg`mci ` _bck "

7ci fgY`@YUfb]b[`Ci hWca Yg

%`8]gh]b[i]g\`Ua`cb[`h\Y`Wc`bW`d]h`c`ZgY`bh`bW`a`YUb]b[`zi`hY`f`UbW`a`YUb]b[`UbX`gdYU`_Yf`a`YUb]b[&`5dd`miUddfcdf]U`h`XY`gW]d]h] Y`UbX`UbU`m]W`d`f`c`W`X`i`fY`g`h`c`h\Y`Z`Y`X`c`Z]bei]fmcZdfU[a Uh]Wg`UbX`]hg fY`Yj`Ubh]Wc`bW`d]h`U`Uggi`a`d]h]cbg`" " `5dd`miUddfcdf]U`h`XY`gW]d]h] Y`UbX`UbU`m]W`d`f`c`W`X`i`fY`g`h`c`h\Y`Z`Y`X`c`Z`YI]WU`z`d`\fUgU`UbX`gY`bh`b]h]U`gYa`Ubh]Wg`" (" `5bU`mgY`]b[i]gh]WXU`U`UbX`Uf[i Y`h\Y`a`Yf]hg`c`Z`h\Y`UbU`mg]g"

HYUW\]b[`GhfUH[]Yg`

`H\]g`Wci fgY`]g`Ub`]bh[fU`Wc`a`dcb`Y`bh`c`Z`h\Y`]b[i]gh]Wg`W`ff]W`i`a`" `h`c`f`X`Y`f`h`c`i`b`X`Y`f`g`h`UbX`h\Y`Wc`[b]h] Y UbX`gc`W]U`X]a`Ybg]cbg`c`Z`Ub[i U[Y`]h]g`Y`gg`Y`bh]U`h`c`]bj`Y`gh[]U`h`h\Y`c`f[Ub]gU]h]cb`c`Z`h\Y`gYa`Ubh]W`gm]h`Ya`z`UbX`h\Y`bUhi`fY`c`Z`h\Y`df]bW]d`Y`g`c`Z`dfU[a Uh]Wg`"````

`9UW`k`YY`_`h\Y`f`Y`k]`VY`U`h`c`!`ci`f`Y`W`h`fY`f`X`Y`g][`b`Y`X`h`c`Y`U`V`c`f`U`h`c`b`UbX`W`U`f]Z`m]b`Z`c`f`a`Uh]cb`]b`h\Y`Vcc`_`g`f`Y`Wc`a`a`Y`b`X`Y`X`z`d`i`g`U`c`b`Y`!`ci`f`h`h`c`f]U`"Hi`h`c`f]U`g`k]`VY`a`U]b`m`X`Y`j`c`h`X`h`c`X]g`W`gg]b[`UbX`YI`d`U]b]b[`h\Y`Ub`gk`Y`f`g`h`c`h\Y`YI`Y`f`W]g`Y`g`d`f`c`j`]Y`X`"````

5ggYgga Ybh

@YWh fYg'k]`VY'dfcj]XYX'UgmbWfcbci g`mžh.Uh]gžrci `k]`VY'UV'Y'fc ``]ghYb'cb!]bY'Uhih.Y'gWXYXi `YX

Hi fb]h]b`gYh]b[. H\]g`]g`bchU`Hi fb]h]b`Ugg][ba Ybh

5ggYgga Ybh' . 7`Ugg`HYgh=UbX`&

GHUfhXUHY . Bch5dd`]WVY

8YHU]`g.

- \$`a]bi hYg`YUWX"" \$i `YUWX" HYghg`Vcj Yf`VcbYbhdFYgYbhYX`]b`YWh`fYg`UbX`h`hcf]U`g""K f]hYb`UbX`cfU`
ZYXVUW_

5XX]h]cbU`XYHU]`g.

H\YfY`UfY`&`]b!WUgg`hYghg" H\Y`Z]fgh]g`cb`%`#`\$`Uh%%`5A`UbX`h`Y`gYWcbX`]g`cb`%`&#`%`Uh%%`5A`"

Hi fb]h]b`gYh]b[. H\]g`]g`bchU`Hi fb]h]b`Ugg][ba Ybh

5 hYbXUbW F Yei]fYa Ybhg

Gh XYbhg'UFY'ghfcb['mYbWci fU[YX'hc'UhhYbX'U''WUggYg'UbX'fYj]Yk ''YWhi fY'fYWcfX]b[g"

7 ci fgY'GWXYXi `Y

[J Yk WUgg'ha YhUVY](#)

Hja YhUV`Y`

8UhY	HmdY	7cbhYbh
K YY_%`%(`GYdhYa VYf! %`GYdhYa VYf	@YWhi fY	A YUb]b[žH\ci [\hUbX`F YU`]m GUYXX`7 \UdhYfg`%UbX`&
	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY
K YY_&.`&%GYdhYa VYf! &)`GYdhYa VYf	@YWhi fY	K cfX`A YUb]b[GUYXX`7 \UdhYf`
	Hi hc]jU`	GUYXX`7 \UdhYf`%UbX`&
	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY
K YY_`.`&`,`GYdhYa VYf! &`C WcVYf	@YWhi fY	GUYXX`7 \UdhYf`(GYbhYbW`F Y`UH]cbg`UbX`Hfi h
	Hi hc]jU`	GUYXX`7 \UdhYf`
	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY
K YY_(`.`) `C WcVYf!`- C WcVYf	@YWhi fY	GUYXX`7 \UdhYf`) 7`Ugg]Z]b[`G]h Uh]cbg
	Hi hc]jU`	GUYXX`7 \UdhYf`(`
	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY
K YY_)`. `%&`C WcVYf!`*` C WcVYf	Hi hc]jU`	GUYXX`7 \UdhYf`)
	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY
	5ggYgga Ybh	7`Ugg`HYgh% Hja YX`hYghcb`]bY`Xi f]b[`h\Y`YWhi fY`dYf]cX
K YY_`*`.`%`C WcVYf!`&` C WcVYf	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY
	@YWhi fY	GUYXX`7 \UdhYf`*` DUfh]W]dUbhg`]b`GYbhYbW`A YUb]b[
K YY_+`.`&`*`C WcVYf!`\$` C WcVYf	Hi hc]jU`	8]gW gg`7`Ugg`HYgh%
	C b`]bY`5W]j]jm	Gh XYbhg`k UHW`Mci hi VY`j]XYcg`UbX`Wca d`YH UW]j]hYg`cb`]bY

K YY_ ; . : & ' Bcj Ya VYf! '* Bcj Ya VYf	@YWh fy	GYYX'7 \UdhYf' + 7 cbhYI hUbX' ðZYfybVW
	Hi hc f]U'	GUYX'7 \UdhYf' *
	C b`]bY'5Wñj]hm	Gh XYbñg`k UñW`Mci hi VY`j]XYcg`UbX`Wta d`Yñ UWñj]ñYg`cb`]bY
K YY_ - . : - ' Bcj Ya VYf! % ' Bcj Ya VYf	@YWh fy	7 \Uda Ub'7 \UdhYf'' `UbX`(7 `Ugg]W@]b[i]gh]WDFU[a Uh]Wg
	Hi hc f]U'	GUYX'7 \UdhYf' +
	5ggYgga Ybh	7 `Ugg`HYgh& H]a YX`hYghcb`]bY`Xi f]b[`h`Y`YWh fy`dYf]cX
	C b`]bY'5Wñj]hm	Gh XYbñg`k UñW`Mci hi VY`j]XYcg`UbX`Wta d`Yñ UWñj]ñYg`cb`]bY
K YY_ %\$. %* ' Bcj Ya VYf! &\$' Bcj Ya VYf	@YWh fy	7 \Uda Ub'7 \UdhYf') A cXYfb`DFU[a Uh]Wg
	Hi hc f]U'	7 \Uda Ub'7 \UdhYf'' `UbX`(7 `Ugg]W@]b[i]gh]WDFU[a Uh]Wg
	C b`]bY'5Wñj]hm	Gh XYbñg`k UñW`Mci hi VY`j]XYcg`UbX`Wta d`Yñ UWñj]ñYg`cb`]bY

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

6cc_-'GYa Ubh]Vg`f&\$%*Ł'GUYXž>"-G6B!% .- +, -%-('\$' --, *' %- 'MYUf`&\$%*'9X]hcb`('h`Di V`]g\Yf`K`]Ym
6`UW_k Y`

6cc_-'DfU[a Uh]Vg`f&\$%*Ł'7\Uda UbžGž-G6B`- +, !\$!&' \$!&&% ' !' 'MYUf`&\$%*Di V`]g\Yf`DU`[fUj Y`A cXYfb
@]b[i]gh]Vg`

F YWca a YbXYX`F Ygci fWg

H\YgY`k`j`VY`gi dd`]YX`Ug`hY`hYfa`dfc[fYggYg

7ci fgY`9j U`i Uh]cb`UbX`8Yj Y`cda Ybh

7ci fgYg`UfY`dYf]cX]WU`mifYj]Yk YX`UbX`ghi XYbhg`Z'YXVUW`]g`i gYX`hc`]a`dfcj Y`hYa`": Y'YXVUW`]g
[UhYfYX`Z'ca`ghi XYbhg`i`g]b[`a`m9I`dYf]YbW`" `#i]g`YbWci fU[YX`hUhghi XYbhg`Wca`d`Yh`hY]f`gi`fj`Ymg`Vm
UWV`gg]b[`hY`dYfgcbU`]gYX`k`YV`"b`_j`]U`hY`A`ccX`Y`Wci fgY`g]hY`"

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

Hi fb]h]b 'Gi Va]gg]cb

Ʒmci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UH'Ya dh]b['hc'gi Va]hmc'i f'Ugg][ba YbhiH'fci [\ 'Hi fb]h]bž'd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfh'cb'-' ,) " ' ' ' %cf'Ya U] 'H'Ya 'cb'YI HYfbU'HY'f'gi ddcfh' i bgk "YXi "Ui "'Gi ddcfh
\ci fg'UfY' , .\$Ua '—%\$.\$\$da 'cb'k YY_XUmg'UbX'-. .\$Ua '—) . \$\$da 'cb'k YY_YbXg'f'fl *) 'XUmg'U'm'YUf'Ʒmci
UfY'i bUV'Y'hc'gi Va]hmc'i f'Ugg][ba YbhiXi Y'hc'U'Zi 'hk]H'Hi fb]h]b'mci 'a UmUdd'm'Z'f'Ub'YI HYbg]cbž'Vi hmc'i
a i ghfYH]b'mci f'h]W_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcfh'f'U'cb['k]H'Ubmc'H'Y'f'f'Y'j UbhXcW a Yb'g'k'hc
]bWi XY'Ug'Yj]XYbW'hc'gi ddcfh'mci f'YI HYbg]cb'Udd'j]W]h]cb" Ʒmci 'Ya U] '9I HYfbU'Gi ddcfh'mci 'k]
Ui 'ca UH]W]m'f'Y'W]j Y'U'h]W_Yhbi a VYf'ž'Vi h]Zmci 'HY'Yd\cbY'mci 'k]'b'Y'Y'X'hc'gd'Y'W]Z]W]m'Ug_ 'Z'f'cbY"
Hi fb]h]b'U'gc'dfcj]XYg'i dXUH'g'cb'H'Y]f'gm'g'Ya 'g'H'U'g'cb'Hk]H'Y'f"

; YbYfU'mž'UggYgga YbhiHUg_g'a i ghVY'gi Va]H'Y'X'Y'Y'W'f'cb]W]m'j]U'Y]H'Y'f'Hi fb]h]b'cf'U'A ccX'Y
Ugg][ba Yb'f' Ʒ]bg'f'Ub'W'g'k \Y'f'Y'hc'g]g'bc'h'd'c'g'g]V'Y'ž'hk]'V'Y'g'H'Y'X'cb'mci f'W'ci fg'Y'g'A ccX'Y'g]H'k]H
U'HY'fb]h] Y'gi Va]gg]cb'XY'f]g"

: cf]bZ'fa UH]cb'cb'\ck 'hc'gi Va]h]Ugg][ba Yb'g'cb]b'Y'j]U'A ccX'Y. \h'hd'g. #g'h XYb'f'i bgk "YXi "Ui #ck!
gi Va]h]Ugg][ba Yb'f'a ccX'Y

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga]g`i g]b[`hY`k cfXg`cf]XYUg`cZcH.Yfg`UbX`dFYgYbh]b[`hYa `Ug`mci f`ck b" #WUb`hU_Y`a Ubm
Zcfa gZ`Zca `XY`]VYfUH`VX.YUf]b[`hc`UWV]XYbhU`mWc`dm]b[`Zca `U`gci fW`k]h`ci hUW`bck `YX[Ya Ybh`

I BGK ` [fci dg`d`U[]Uf]ga]bhc`hY`Zc`ck]b[`WUH` [cf]Yg.

7 cdm]b[. `i g]b[`hY`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hY`hcf]XYU`k]h`ci hUW`bck `YX[]b[`hY`
gci fW`cf`i g]b[`ei chU]cb`a Uf_g" `H\]g`U`gc`Udd`Yg`hc`]a U[YgZ`UfhUbX`XYg][b`dfc`YWgZ`Ug`k Y`Ug
dfYgYbhU]cbg`k \YfY`gca YcbY`dFYgYbhg`Ubch`Yf`g]XYUg`cf`k cfXg`k]h`ci hWYX]h`

#Uddfcdf]UH`dUfUd`fUg]b[. `7 \Ub[]b[`U`ZYk`k cfXg`UbX`d`fUgYg`k \]Y`a cghmfYH]b]b[`hY`cf][]bU`
ghf`i W`fY`UbX`#cf`dfc[fYgg]cb`cZ]XYUg`cZ`hY`cf][]bU`Z`UbX`]bZcfa Uf]cb`k]h`ci hUW`bck `YX[Ya Ybh`H\]g`U`gc
Udd`Yg]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`Ubch`Yf`g]XYUg`cf`k cfXg`k]h`ci hWYX]h`UbX`hc
d]YV]b[`hc[Yh`Yf`ei chYg`UbX`dUfUd`fUgYg]bhc`U`bYk`k \c`Yz`k]h`ci hUddfcdf]UH`fYZYfYbW]b["

7 c`i g]cb.`k cf_]b[`k]h`chYfg`Vi hdUgg]b[`cZ`hY`k cf_]Ug`U`dYfgcb`g`]bX]j]Xi U`k cf_"`7 c`i g]cb`U`gc
]bWi XYg`dfcj]X]b[`mci f`k cf_]hc`Ubch`Yf`gh`XYbhVYZc`fY`hY`Xi Y`XUH`Zc`f`Zc`f`hY`di fdcgY`cZ`hYa
d`U[]Uf]g]b[`Uh`Ubmi]a Yz`dUm]b[`Ubch`Yf`dYfgcb`hc`dYfZcfa `Ub`UWXYa]WfUg`_z`gh`U`]b[`cf`UW`i]f]b[
Ubch`Yf`dYfgcb`g`UWXYa]Wk cf_]UbX`Wc`dm]b[]h`c`ZYf]b[`hc`W`a d`YH`Ubch`Yf`dYfgcb`g`k cf_]cf`gYY_]b[

- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V]]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'I gY'cZ
I BGK '⇒H'F Ygci fW'g'Dc`]Wñ

5 WUXYa]W**⊖**Zcfa Uh]cb

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`tc.