

H\U]`UbXg`6]h_i V`d`Ubh`Y]bY`? fmdhc! 9I dUbg]cb`]b`GØXcghUg]Yb

6]h_i VžH\U]`UbXg'[fÒ» hYg'< UbXY`gi bhYfbY\a Yb ZØf
?fmdhck Å\fi b[Ybž'd`Ubhž'gY]bY'5_h]j]hÀhYb']b'X]YgYa '\U\f
Ui Z'UbXYfY 'gØXcghUg]Uh]gW\Y'@ÀbXYf'Ui gni XY\bYbž'gU[hY
; fØbXYf'i bX'; YgW\ÀZhgZØ\fYf'Hcdd'\]fUmi h'Gfi dgf]gcdU"
Hcdd 'gU[hYž'XUgg'6]h_i V'nk Uf'_Y]bYb' 6`i hj Yf[]Y» Yb!?f]Y[
a]h'Xca]bUbhYb'< UbXY`gd`UhhZcfa Yb']b'XYf'FY[]cb'k]Y
_\U\XCXUI \z'Y]bYf'XYf'[fÒ» hYb'6]hWc]b!'i bX'?fmdhc!6\U\f\gYb
_\U\XC\Yg]Ybg\z'\Y[]bbY\z'\U\Yf'@\AbXYf'c\bY'ghUf_Y
5a hg]b\U\Yf']bg'J]g]Yf'bY\a Y''' K]f'd`UbYb\z']b'Y]b'@UbX
c\bY'_`\UfYb'; Yk]bbYf'ni '[Y\Yb\z'kY]`k]f'b]W\h']b'Y]bYb
?f]Y['a]h'[fc\y\b'YhU\V`]YfhYb'Gd]Y`Yfb'[Y\Yb'kc``Yb\z'gU[hY
Hcdd']b'Y]bYa _\U\Xf'j]Yk 'a]h'XYf':]bUb\J\U\Yh'BYhK Yf_Y\ZY_h
i bX'G_UY\bY\ZZY_hY'a]h'g]W\V\f]b[h\z'\Ua\d\Y\`]d/

6]h_i Vž'H\U]`UbXg'[fÒ» hYg'< UbXY`gi bhYfbY\a Yb'ZØf?fmdhck À\fi b[Ybž'd`Ubhž'gY]bY'5_h]j]hÀhYb']b'X]YgYa '\\\f'Ui Z UbXYfY'gØXcghUg]Uh]gW\Y'@ÀbXYf'Ui gni XY\bYbž'gU[hY'; fØbXYfi bX'; YgW\ÀZhgZØ\fYf'Hcdd'\]fUmi h'Gfi dgf]gcdU"

Hcdd gU[hYžXUgg 6]h_i V nk Uf _Y]bYb 6`i hj Yf[]Y» Yb!?f]Y[a]h Xca]bUbhYb < UbXY`gd`UhhZcfa Yb]b XYf FY[]cb k]Y +bXcXUI ž Y]bYf XYf [fÒ» hYb 6]hWc]b! i bX ?fmdhc!6ÒfgYb +bXcbYg]Ybgž VY[]bbYž UVYf @AbXYf c\bY ghUf_Y 5a hg]b\UVYf]bg J]g]Yf bY\a Y"

K]f'd`UbYbž']b'Y]b'@UbX'c\bY'_`UfYb'; Yk]bbYf'ni '[Y\Ybž'k Y]`k]f'b]W\h']b'Y]bYb'?f]Y['a]h'[fc»Yb'YhUV`]YfhYb'Gd]Y`Yfb'[Y\Ybkc``Yb ž'gU[hY'Hcdd']b'Y]bYa '=bhYfj]Yk 'a]h'XYf':]bUbW]U``H]a Yg'''

K]f'[`Ui VYbž'XUgg'X]YgY'5fh'j cb'; YgW\AZh'Y]bYb'BYhnk Yf_YZZY_h

i bX°G_U`YbYZZY_hY°a]h°g]W\`Vf]b[hž°XYg\U`V°k c``Yb°k]f°X]Y°9fghYbgY]bž°X]Y°Y]b°DfcXi _h°Ui Z'XYb°A Uf_h°Vf]b[Yb ž°gU[hY°Yf"°

GY]bY'?ca a YbhUfY'_ca a Yb']ba]hhYb'XYg'k UWXgYbXYb < UbXY'gj c'i a Ybg'ZØf'6]hWc]b'i bX'UbXYfY'?fmdhck À\fi b[Yb'Ui Z XYf'6]h_i V!D'UhhZcfa ']b'H\U]'UbXž'XYf'nk Y]h[fÒ»hYb J c'_gk]fhgWXUZh'XYf'FY[]cbž'k c'X]Y'5i Zg]WXhgVY\ÒfXYb'bYi Y GhYi Yfb'ZØf'XYb'GY_hcf'Yfk À[Yb"

9f'gU[hYž'?Ua VcXgW\Už'A mUba Ufž'@Ucgž'X]Y'D\]`]dd]bYb'i bX A U`Umg]U'[Y\ÒfhYb'ni 'XYb'@ÀbXYfb'c\bY' _`UfYb'; Yk]bbYf ']a <UbXY`'a]h'?fmdhck À\fi b[Yb"

 $\label{thm:local-condition} \begin{align*} Hcdd `Yf_`AfhY `z`XUgg `6]h_i V `bcW\`_Y]bY `Zcfa Y``Y `8 i Y `8]`][YbW `ZØfgY]bY `9 I dUbg]cb `VY[cbbYb `\UVY `z`X]Y `Yg `Ui g`VYghY \YbXYb ; Yk]bbYb `Z]bUbn]YfYb `k ØfXY" `8]Y `; fi ddY `gU[hY z`]\f `BYhhc [Yk]bb]a `$J\f `&$&%`\UVY `) `A fX" `6U\h`f%) & `A]c" `I G8 \(YffY \)W\h'' `$

Hcdd]gh'Y]b'Y\Ya U`][Yf' ≠ j Ygha YbhVUb_Yf'i bX I bhYfbY\a YbgVYfUhYfž'XYf'&\$%('gY]b'YfghYg ?fmdhck À\fi b[gi bhYfbY\a Yb']b'Y]bYa '; ÀghYn]a a Yf']b'Y]bYa j cb'gY]bYb'9`hYfb'[YZØ\fhYb'6Y_`Y]Xi b[g[YgWXÀZh']b'6Ub[_c_ [fØbXYhY"

8]Y'G]Ua '7ca a YfW]U`'6Ub_ž'H\U]`UbXg'À`hYghYf'?fYX]h[YVYfž'ni XYggYb'5_h]cbÀfYb'XYf'h\U]`ÀbX]gW\Y'?Òb]['A U\U'JU']fU`cb[_cfb [Y\Òfhž'Yfk UfV']a 'Bcj Ya VYf'Y]bY') %!dfcnYbh][Y'6YhY]`][i b['Ub6]h_i V'ZØf')' + 'A]``]cbYb'I G!8c``Ufž'k Ug'XYa 'I bhYfbY\a Yb'Y]bY 9]b\cfb !6Yk Yfhi b['j cb'a Y\f'U`g'%'A]``]UfXY'I G!8c``Uf j YfgW\UZZh''

 $8 \ Yf'K \ YhhVYk \ YfV'i \ a \ ?fmd \ hck \ \grave{A} \ fi \ b [\ g_i \ b \ XYb' \ Uh'g]W \ ']b' \ H \ U]`Ub X \ i \ b X'Ub \ XYfYb' g \emptyset X c gh Ug]Uh]g W \ Yb' @ \grave{A} b \ XYfb' j \ Yfg W \ \grave{A} f Zh''$

 $8\,]YgY^*K\,cWXY^*[\,\,UVYb^*X]Y^*< UbXY^*gd^*UhhZcfa^{-1}6\,]b\,Ub\,WY^*i\,\,b\,X^*;\,\,i\,\,^*Z$

9bYf[m'8Yj Y`cda Ybhž'X]Y'j ca 'h\U]`ÀbX]gWXYb'A]``]UfXÀf'GUfUh\FUhUbUj UX]'_cbhfc``]Yfh'k YfXYbž'VY_Ubbhž'XUgg'g]Y'Y]bY
[Ya Y]bgUa Y'Ghi X]Y'ni f'9]bf]WXhi b['Y]bYf'6ÒfgY'ZØf'X][]hU`Y
J Yfa Ò[Ybgk YfhY'Xi fWX ZØ\fYb"

Hcdd``Y\bhY`Yg`UVž`g]W\`ni`XYf`jcf[YgW\`U[YbYb`JYfV]bXib[`ni Ài»Yfbž`V]g`"`"`Yg`]gh`kYgYbh`]W\`ibX`k]fX`ni`Y]bYf`HUhgUW\Y" 9f`ZØ[hY`\]bniž`XUgg`6]h_iV`VYfY]h`gY]ž`XYf`?cb_iffYbn ghUbXni\U`hYbž`kUg`[ih`ZØf`X]Y`6fUbW\Y`gY]"

 $9g "gWX UZZh": cfhgWX f]hhž"Yg"gWX UZZh"[ihY"9f[YVb]ggY"ZØf"X]Y\\?ibXYb ~~ ž"gU[hY"Yf"$

 $Hcdd^{Y}bhY^{g}UV\check{z}^{g}W^{ni}XYf^{j}cf[YgW^{U}YbYb^{G}hYiYf^{ni}Ai*Yfb\check{z}^{i}bX^{g}U[hY\check{z}^{i}X]Yg^{g}Y]^{G}GdY_{i}^{U}bb\check{z}^{i}XU^{X}]Y^{D}c^{h}_{j}b]W^{h}cZ[n]Y^{U}[Y_{\emptyset}bX][h^{i}k^{G}XYb^{g}Y]^{U}$

Hk] hhYf. $4 \times bFYYXkf$] hYg

EiY``Y.:]bUbW]U``H]a Yg

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. '_fmd hc!bYk g"Uh