



MUSC1706

DYfZcfa UbWV '@JVc fUhc fm&

GYa YghYf'Hk c''##'&\$%



GWcc''cZH Y'5ftg'UbX'A YXJU''##'I BGK ''5ftg'UbX'GcWJU''GWYbWg

7 ci fgY`Cj Yfj]Yk

`GHUZZ7cbHJW`i8YHJ`g`

`7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UVj]m	@cWJhcb	D\cbY
@Ji fU`7`jg`Yth	~"Wk]g`YthcbYg4 i bgk "YXi "Ui	Ya Uj`ei Yfnžcf`Zcf Ub`Uddc]bta Ybh	i bXYZbYX	

: cf`YggYbh]U`gh XYbh]bZcfa Uhcb`fY`Uh]b[`rc.`fYei Ygrg`Zcf`YI hYbg]cb/fYj]Yk`cZa Uf_g/cVW dUhcbU`\\YU`h
UbX`gUZ`hm/YI Ua]bUhcb`dfcVW`Xi fYg/gdYW]U`Wcbg]XYfUhcb`]b`hY`Yj YbhcZ]`bYgg`cf`a]gUXj Ybh fY/
gh XYbhYei]mUbX`X]gUV]`]m/UbX`ch`Yf`YggYbh]U`UWXYa]W]bZcfa Uhcbž
gYY`[\hdg.#k.k"Ufng"i bkg "YXi "Ui #W ffYbhgh XYbng#UWXYa \]W\]bZcfa Uhcb#dfcfcW`g!\[i \]XY`\]bYg#](#)

5ggYgga Ybh

: i ``UggYgga YbhXYHU]g`k]``VY`[]j Yb`]b`WUgg`UbX`cb`A`ccX`Y`"

!!!!!!!!!!!!!!!!!!!!

<YfY`UFY`tk`c``]b_g`hc`hAY`i`b]j`Yfg]mfg`k`YV`dU[`Yg`UVci`hWc`ffYWh`fYZ`fYbW]b[`.

\hfdg.#gfi`XYbhi`bgk`"YXi`"Ui`#ack`!Xc`!]WjY`

\hfdg.#gfi`XYbhi`bgk`"YXi`"Ui`#JdU`

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_g`	K`Y][` \h`	8i`Y`8UH`	Gh`XYbhi`@YUfb]b[` Ci`hWc`a`Yg`5ggYggYX`
DYfZc`fa`UbW`k`cf_g`l`cd`	&)	Bch5dd`]WUV`Y`	%
9bgYa`V`Y`Wc`bhf]Vi`h]cb`UbX` dUfh`WX`YW_]b[`) \$	Bch5dd`]WUV`Y`	%
7cbW`fhdfUW]W`	&)	Bch5dd`]WUV`Y`	&

5ggYgga Ybh8YHU]`g`

5ggYgga Ybh%`DYfZc`fa`UbW`k`cf_g`l`cd`

GhUfhXUH`. `Bch5dd`]WUV`Y`

@Yb[`h`. `%\$`a`]bi`hYg`

8YHU]`g`. `Gh`XYbhi`g`k`]``VY`fYei`]fYX`hc`Wc`bhf]Vi`hY`hc`WUgg`X]gW`gg]cb`UbX`UW]j`]hYg`UbX`[`]j`Y`U`dYfZc`fa`UbW`
Zc`f`hY`WUgg`k`]h`Ub`cfU`d`fYgYbhi]h]cb`hc`gi`ddcfh]h`@Yb[`h`. `l`d`hc`%\$`a`]bi`hYg`":`YYXVUW`. `k`f]hYb`fYdcfh`

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

5ggYgga Ybh&.`9bgYa`V`Y`Wc`bhf]Vi`h]cb`UbX`dUfh`WX`YW_]b[`

GhUfhXUH`. `Bch5dd`]WUV`Y`

@Yb[`h`. `B`#`

8YHU]`g`. `Gh`XYbhi`g`fWc`bhf]Vi`h]cb`hc`YbgYa`V`Y`fY`YUfgU`g`UbX`dYfZc`fa`UbW`g`k`]``VY`UggYggYX`Vm`h`Y`
YbgYa`V`Y`X]fYWc`f`UbX`h`fci`[`\`U`dUfh`WX`YW_]b[`hY`ghUhi`h`Y`YbX`c`Z`h`Y`g`Ygg]cb`"H\]g`]g`h`Y`Z]bU`
UggYgga`YbhHUg_g`":`YYXVUW`. `X]fYWh`Xi`f]b[`fY`YUfgU`g`UbX`Y`YW`fcb]WUZh`f`dUfh`WX`YW_]b[`"

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

5ggYgga Ybh`. `7cbW`fhdfUW]W`

GhUfhXUH. Bch5dd`]WV`Y

@Yb[h. " ' l ") \$`k cfXg

8YhU]`g. DcfhZ`]c`cZ' !) `Yei U`mk Y][\hX`cb`]bY`W]hei Yg`cf`fYZYW]cbgZ`VUgYX`cb`YW`fY
UW]j]m: YYXVUW_`K f]hYb`fYdcfhcb`YUW`V`c["

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

Gi Va]gg]cb'cZ5ggYgga YbhHUg_g

Gh XYbng'UFY'YI dYWX'hc'di hH'Y'f'buA Yg'UbX'ghi XYbhibi a VYfg'cb'Yj YfmdU[Y'cZ'HY]f'Ugg][ba Ybng"

Hi fb]hb'Gi Va]gg]cb

Zmci 'YbWci bHY'U'dfcV'Ya 'k \Yb'UHYa dh]b['hc'gi Va]hrci f'Ugg][ba Ybh'fci [\ 'Hi fb]hbzd'YUgY
HY'd\cbY'9I HYfbU'Gi ddcf'hc'b-' ,) ' ' ' %cf'Ya U]'hYa 'cb'[YI HYfbU'HY'f'gi ddcf'f4 i bgk "YXi "Ui "](#)Gi ddcf'h
\ci fg'UFY' , .\$\$Ua '-'%. \$\$da 'cb'k YY_XUmg'UbX'-. \$\$Ua '-') . \$\$da 'cb'k YY_YbXg'f'fl *) 'XUmg'U'mYUf'f' Zmci
UFY' i bUV'Y'hc'gi Va]hrci f'Ugg][ba YbhXi Y'hc'U'ZU' 'hk]h'Hi fb]hb'rci 'a UmUdd'm'Zcf'Ub'YI HYbg]cb'Z'Vi hrci
a i ghf'Y'U]b'rci f'h]W_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcf'h'U'cb['k]h'Ubmc'h'Y'f'f'Y'Yj Ubh'Xc'W a Ybng'k'hc
]b'Wi XY'Ug'Yj]XYb'W'hc'gi ddcf'hrci f'YI HYbg]cb'Udd']W]h'cb" Zmci 'Ya U]'9I HYfbU'Gi ddcf'hrci 'k]'
Ui 'ca U]h'W' 'm'f'Y'W']j Y'U'h]W_Yhbi a VYf'Z'Vi h]Zmci 'HY'd\cb'Y'mci 'k]' 'b'Y'X'hc'gd'Y'W'Z'W' 'm'Ug_ 'Zcf'cb'Y"
Hi fb]hb'U'gc'd'f'c]]XY'gi dXU'Y'g'cb'h'Y]f'g'm'g'h'Ya 'gh'U'h'g'cb'Hk]h'Y'f"

; YbYfU'm'Z'UggYgga YbhHUg_g'a i ghVY'gi Va]h'Y'X'Y'Y'W'f'cb]W' 'mj]U'Y]h'Y'f'Hi fb]hb'cf'U'A ccX'Y
Ugg][ba Ybh' 'b]bg'h'Ub'W'g'k \Y'f'Y'h']g']g' b'chid'cgg]V'Y'Z'hk]' 'VY'g'f'U'Y'X'cb'mci f'W'ci fg'Y'g'A ccX'Y'g']h'Y'k]h'
U'h'f'U'h]j Y'gi Va]gg]cb'XY'U]g"

@UH'5ggYgga YbhDYbU'h]Yg

Gh XYbng'UFY'f'Y'g'd'cbg]V'Y'Zcf'h'Y'gi Va]gg]cb'cZUggYgga YbhHUg_g'V'm'h'Y'f'Yei]f'Y'X'XU'Y'g'UbX'h'a Yg"
8Yd'YbX]b['cZ'HY'YI HY'bh'cZXY'Um]b'h'Y'gi Va]gg]cb'cZUb'UggYgga YbhHUg_g'dUgh'h'Y'Xi Y'XU'Y'UbX'h'a Yz
cb'Y'cZ'HY'Z'c'ck]b['UH'd'Yb'U'h]Y'g'k]' 'Udd'mi b'Y'gg'gd'Y'W'U' 'W'c'bg]XY'f'U'h'cb'cf'U'V'Ub_Y'h'YI HY'bg]cb'Xi Y'hc'U
HY'W'b]W' 'ci]U[Y']g['f'Ub'h'Y'X'": cf'h'Y'di f'd'c'g'Y'cZ'U'Y'h'd'Yb'U'm'W'W'U'h]cb'Z'U'X'U'm']g'XY'Ya YX'hc'VY'Y'U'W'X
&(!\ci f'd'Y'f]c'X'f'c'f'd'U'f'h'Y'f'Y'c'Z'd'U'gh'h'Y'g'h]di 'UH'Y'X'XY'UX']b'Y'Zcf'gi Va]gg]cb"

- K cf_'gi Va]h'Y'X'Y'gg'h'Ub'%'\$'XUmg'U'Z'h'f'h'Y'g'h]di 'UH'Y'X'XY'UX']b'Y']g'gi V'Y'W'h'c'U'XY'Xi W]cb'c'Z
) i 'cZ'HY'hc'U'Uk Uf'X'U'V'Y'a Uf_'Z'ca 'h'Y'a Uf_'h'U'hk ci 'X'\Uj Y'V'Y'Y'b'U'W'X]Yj YX']Z'b'ch'Zcf'h'Y
d'Yb'U'm'Zcf'Yj Yfm'X'U'm'd'U'gh'h'Y'g'h]di 'UH'Y'X'XY'UX']b'Y'Zcf'gi Va]gg]cb" H\U'h]g'Z'U'gh'XY'bhk '\c'gi Va]hg
Ub'Ugg][ba Ybhk]h'U'g'h]di 'UH'Y'X'XY'UX']b'Y'c'Z(. \$\$da 'cb'%' 'A Um'&\$\$* 'Uh(. \$\$da 'cb'%' 'A Um'&\$\$*
k]']b'W'f'U'XY'Xi W]cb'c'Z%'\$i " "

HUg_'k]h'U'bc'b d'Y'f'W'b'U] [Y'a Uf_

Z'h'Y'f'Ug_]g'a Uf_Y'X'ci hc'Z&) Z'h'Y'b'UH'gi Va]gg]cb'k]' 'U'h'f'U'W'h'U'd'Yb'U'm'c'Z'U'XY'Xi W]cb'c'Z%'&) Z'ca 'h'Y
a Uf_'Uk Uf'Y'X'hc'h'Y'g'h'XY'bh'Zcf'Yj Yfm'&(!\ci f'd'Y'f]c'X'f'c'f'd'U'f'h'Y'f'Y'c'Z'd'U'gh'h'Y'g'h]di 'UH'Y'X'XY'UX']b'Y"

- K cf_gi Va]hYX %\$'hc '%- 'XUmg 'UZhf'h'Y'gh]di 'UhYX'XYUX`]bY'k]''VY'UggYggYX'UbX'ZYXVUW_dfcj]YXX'Vi hU'a Uf_cZnYfc'k]''VY'fYWcfYXX''Z'hY'k cf_k ci 'X'\Uj Y'fYW]j YX'U'dUgg'a Uf_Vi hZcf hY''UhY'bYgg'UbX'hY'k cf_]g'U'Wta di `gcfmWci fgY'Wta dcbYbhfli fX'Y'fYei]fYa YbHžU'ghi XYbhk]''VY'XYYa YX'hc'\Uj Y'a Yh'hUhfYei]fYa Ybh'
- K cf_gi Va]hYX &\$'cfa cfY'XUmg 'UZhf'h'Y'gh]di 'UhYX'XYUX`]bY'k]''bchVY'UWW'dhYX'Zcf UggYgga YbhUbX'k]''fYW]j Y'bc'ZYXVUW_ž'a Uf_cf[fUXY''Z'hY'UggYgga YbhUg_]g'U'Wta di `gcfm Wta dcbYbhcZ'hY'Wci fgY'U'ghi XYbhk]''fYW]j Y'Ub'l bgUhgZUWcfm: U]'fl : Ł'[fUXY'Ug'U'fYgi `hcZ i bgUhgZUWcfmdYfZcfa UbVW`]b'Ub'YggYbh]U'Wta dcbYbhcZ'hY'Wci fgY''

H\]g`]bZcfa Uhcb`]g'U'gc'Uj U]UV'Y'Uh

[\hdg.##k k k "Ufng"i bgk "YXi "Ui #W ffYbHghi XYbmg#JWJXYa \]W\]bZcfa Uhcb#dfchWc`g!\[i \]XY`\]bYg#](#)

5 WUXYa]W<c bYghmUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b[`hY`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYbh]b[`hYa `Ug`mci f`ck b" `hWUb`hU`Y`a Ubm
Zcfa gZ`Zca `XY`]VYfUHY`WXYU]b[`hc`UWV]XYbhU`mW`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[`WUHY[cf]Yg.

7 cdm]b[.`i g]b[`hY`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hYI 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`dfYgYbh]g`UbchYf`g`]XYUg`cf`k cfXg`k]h`ci hWYX]h`

hUddfcdf]UHY`dUfUd`fUg]b[.`7`Ub[]b[`U`ZYk `k cfXg`UbX`d`fUgYg`k \]Y`a cghmifYU]b]b[`hY`cf][]bU`
ghfi`W`i fY`UbX`#`f`dfc[fYgg]cb`cZ]XYUg`cZ`hY`cf][]bU`Z`UbX`]bZcfa`U]cb`k]h`ci hUW_bck`YX[Ya Ybh`"H\]g`U`gc
Udd`]Yg`]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`UbchYf`g`]XYUg`cf`k cfXg`k]h`ci hWYX]hU`bX`hc
d]YW]b[`hc[YhYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk `k \c`YZ`k]h`ci hUddfcdf]UHY`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

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]]hYg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hžI BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wñ
- VY'Uk UfY'cZñY'ghUbXUfXg'cZVY\Uj]ci f'YI dYWñX'cZYj Yfmcby']b'hY'I BGK 'Wca a i b]m
- `cWñh'gYfj]Wg'UbX']bZcfa Uñcb'UVci hl BGK 'UbX'I BGK '@VfUfm

Gca Y'cZñYgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci žcñYfg'k]`VY'byk "; U]b]b['U'gc`X'i bXYfghUbx]b['cZU`ñY fY'UH'X'UgdYWñ'cZ9@G9'k]`Y'd'mci 'a U_Y'hY'a cghcZmci f'gh X]Yg'Uhl BGK "

[f\hd.#gi.VYWf\[i\]XYg" \]VfUfm'i bgk "YXi "Ui #`\]gY#UVci h`\]gYŁ](#)

7 ci fgY'GWYXi `Y

[J\]yk `WUgg`ha YhUV`Y](#)

H]a YhUV`Y`

8UhY	HmdY	7cbhYbh
K YY_%`&` `>i `m!`&- `>i `m		D`YUgY`gYY`h\Y`Z `~f7 ci fgY'GWYXi `Y`VmiK YY_fcb

F Ygci fWg

DfYgW]VYX`F Ygci fWg`

F]b_ž>"f&\$\$&Ł"A i g]W]`DYfZca UbW. '5`[i]XY`hc`i bXYfgHUbX]b[""7 Ua Vf]X[Y. '7 Ua Vf]X[Y
I b]j Yfg]mDfYgg"

F YWca a YbXYX`F Ygci fWg

6Yfa Ubž6"f&\$\$\$\$Ł"BchYg`Zca`hY`d]Ub]ghg`VYbW`"BYk`<Uj Yb.`MU`Y`I b]j Yfg]mDfYgg"
6fck bž7"f%- - -Ł"7 Ugg]W]`UbX`F ca Ubh]WdYfZca]b[`dfUW]W`%+) \$!%- \$\$\$`C I Zc fX. `C I Zc fX`I b]j Yfg]m
DfYgg"
7cc_YžA "/`<cfbž8"f&\$\$`Ł`H\Y`7 Ua Vf]X[Y`7 ca dUb]cb`hc`>Unn""7 Ua Vf]X[Y. '7 Ua Vf]X[Y`I b]j Yfg]m
DfYgg"
8i bgVnž>"f&\$\$-Ł`A U_]b[`k cfXg`g]b[. `b]bYHYbH`UbX`hk`Ybh`Yh`Wbhi`fmgcb[""7 Ua Vf]X[Y. '7 Ua Vf]X[Y
I b]j Yfg]mDfYgg"
; Y`VžA]WUY`""f%-, +Ł`6cXm`YUfb]b[`"-Ub]b]hcXi`W]cb`hc`hY`5`YI`UbXYf`HYW]b]ei`Y`"@cbXcbž5i`fi`a`"
; cfXcbžGHk`Ufh`f&\$\$Ł`A`UghYf]b[`hY`UfhcZdYfZca`UbW`"BYk`Mcf_`C I Zc fX`"
; fYbž6"f%-, *Ł`H\Y`]bbYf[`Ua`Y`cZa`i`g]W`BYk`Mcf_`8ci`VYXUm`
<YfVYfž`H`ž/`K`U`"UWž">"f9Xg"Ł"f%- - +Ł`H\Y`7 Ua Vf]X[Y`Wca`dUb]cb`hc`VfUgg
]b]ghf`i`a`Yb]g""7 Ua Vf]X[Y`UbX`BYk`Mcf_ž7 Ua Vf]X[Y`I b]j Yfg]mDfYgg"
<ck`UžF`"f&\$\$-Ł`H\Y`5fhcZ: fYbW`D]Ubc`A`i`g]W`BYk`<Uj`Ybž7`H/`@cbXcbžMU`Y`I b]j Yfg]mDfYgg`"
<]b]gcbžA`"f&\$\$Ł";`i`]XY`hc`hY`d]Ub]ghg`fYdYfrc]fY`"fi`fX`YX`Ł`6`cca`]b[`hc`b.`hX]UbU`I b]j Yfg]mDfYgg`"
@Yi`VUž7`"f&\$\$(`Ł`5`gh`XmicZa`i`g]W`]b]hc`bU]h]cb""J`UbVei`j`Yf.`DfcgdYWh`Di`V`]W]h]cbg`
BYhž6""f9X"Ł"f%-, Ł`h`hY`Wci`fgY`cZdYfZca`UbW. `gh`X]Yg`]b`hY`k`cfX`cZa`i`g]W`]a`dfcj`]gU]h]cb`
7`]W]c[. `I b]j Yfg]mDfYgg`"
DUfbW`hžF`"/`A`Wd`Yfgcbž;`"f&\$\$&Ł`H\Y`gW]YbW`UbX`dgmW]c`c[`mcZa`i`g]WdYfZca`UbW. `7`fYU]j`Y`
ghfU]h[`]Yg`Zc`f`h`UW]b[`UbX`"YUfb]b[""C I Zc fX. `C I Zc fX`I b]j Yfg]mDfYgg`"
DchYfž>"f&\$\$*Ł`J`cW`]ghmY`UbX`]XYc`c[`m`7 Ua Vf]X[Y. '7 Ua Vf]X[Y`I b]j Yfg]mDfYgg`"
DchYfž>"f9X"Ł"f&\$\$Ł`H\Y`7 Ua Vf]X[Y`Wca`dUb]cb`hc`g]b[]b[""7 Ua Vf]X[Y. '7 Ua Vf]X[Y`I b]j Yfg]mDfYgg`"

F]b_ž>"f%- -) Ł`H\Y`DfUW]W`cZDYfZca`UbW. `gh`X]Yg`]b`a`i`g]W`]b]hYfdYfU]h]cb""7 Ua Vf]X[Y. '7 Ua Vf]X[Y
I b]j Yfg]mDfYgg`"
SSSS"f&\$\$&Ł`A`i`g]W`dYfZca`UbW. `U`[`i`]XY`hc`i`bXYfgHUbX]b[""7 Ua Vf]X[Yž7 Ua Vf]X[Y`I b]j Yfg]m
DfYgg`"
>c`Ub`Gi`bXVYf[`/:`:]`dU`@`/6f]Ub;`]"f&\$\$%Ł`":`cfa`UbhghfU]h[`]Yg`]b`dfcZ]gg]cbU`a`U`Y`g]b[`Yfg`"
H\Y`>ci`fbU`cZ`hY`5`Vci`gh]W`GcW]YmCZ5a`Yf]W`%&-ž&),`%`"

