



ARTS1510

WcfcXi Wcfcfm; Yfa Ub '5

HYfa 'CbY' #'&\$%

7ci fgY`Cj Yfj]Yk

`GHUZZ7cbhUWhi8YHU]`g`

`7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UVj]m	@cWUhcjb	D\cbY
8Yb]gY`< UbhY`	X"\UbhY`4 i bgk "YXi "Ui	Hi Y`%d%&cf`Vm Uddc]bha Ybh	A cfj Yb`6fck b &' (Z`*%f&E`-' ,) \$) - *

GWxccc``7cbhUWhi`bZcfa Uh]cb

GWxccc``cZ<i a Ub]hYg`UbX`@Jb[i U[Yg

@cWUhcjb. `GWxccc``C Z]WZ`A cfj Yb`6fck b`6i]X]b[ž`@Yj Y``&ž&),

CdYb]b[`<ci fg.`A cbXUm!`: f]XUmž`- Ua `!)`da

D\cbY. `Z`*%&`-' ,)`:%*, %

: U! . `Z`*%&`-' ,)` ; , +\$)

9a Uj]. [\U`4 i bgk "YXi "Ui](#)

7ci fgY'8YHJ]`g

7fYX]h'Dc]bkg`*`

Gi a a UfmicZ'h\Y'7ci fgY

Gi V'YWhi5fYU.'9Wd_S` EfgV[Wé

zmc i`UfY`]bHfYghX`]b`YUfb]b[`h\Y`a cghWéa a cb`mgdc_Yb`Zfgh`Ub[i U[Y`]b`9i fcdY`UbX`\Uj Y`bc`df]cf`
_bck`YX[Y`cZ'h\Y`; Yfa Ub`Ub[i U[Yž'h\Yb`;` fdaVgUfack 9Wd_S` 3`]g`h\Y`f][\hWéi fgY`Zcf`mci "`6UgYX`cb`U

Ubi U[YžY]hYf Ug U\Yf]hU[Y Ubi U[Y'cf'h'fci [\ 'dfYj]ci g]bghfi W]cbž'a i ghZ'']b'h'Y'd'UW'a Ybh
ei Ygh]cbbU]fY Uj U]UV'Y'Uh\h'hdg. #A U"Ufhg"i bgk "YXi "Ui #gh XYbgh#Wci fgYg#Ubi U[Y!d'UW'a Ybgh" Mci 'k]`
bchVY'dYfa]hYX'hc 'Ybfc'']b'U'Ubi U[Y'Wci fgY'h'Uh]g'hc c'YUgmZ'f'mci " =Z'h]g'c'W'W fgž'mci 'k]`VY
fYei YghYX'hc 'WUbi Y'mci f'Ybfc'a Ybh'

5ggYgga Ybh

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHŸ	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
@]ghYb]b[`UbX`F YgdcX]b[`	%)	%&#'\$' #&\$%- '\$%\$\$`DA	%ž&ž(
Dcflz`c`	(\$	&&#'\$' #%- /&* #\$(#%-	%ž&ž ž(ž)
HYgh	' \$	% #\$(#&\$%- '%\$. \$\$`5A	%ž&ž(
GdYU_]b[`HUg_`	%)	' \$#\$(#&\$%- '%\$. \$\$`5A	%ž&ž

5ggYgga Ybh8YHJ]`g

5ggYgga Ybh% `@]ghYb]b[`UbX`F YgdcX]b[

GHUfhXUHŸ. Bch5dd]WUV`Y

@Yb[h. ` \$a]b

8YHJ]`g. `#!WUgg`ghYb]b[`hYghcb`dUdYf`fUddfcl "" ` \$`a]bi hYgk`H\Y`hYghWcbg]ghg`cZWcgYX`ei Ygh]cb`hmdYg
fY"[``a i `hd`Y`Wxc]W`cf`a`UWk]b[`UbX`cdYb`ei Ygh]cb`hmdYg`fY"[``cdYb!YbXYXžg\cfhH\I hgl": YYXVUW_j]U
a Uf_YX`hYghdUdYfg`UbX`]b!WUgg`X]gW`gg]cb`cZW`a`a`cb`a`]ghU_Yg"

5ggYgga Ybh&. `Dcflz`c`

GHUfhXUHŸ. Bch5dd]WUV`Y

@Yb[h. `Uddfcl ""&`\ci fg

8YHJ]`g. `Dcflz`c` Wcbg]ghg`cZfk`c`dUfhg`k` \]Wk`UfY`gi`Va`]hYX`cb`hY`@A`G`cj`Yf`hY`Wci`fgY`cZHY`hYfa`"
9UWk`dUfhk`j`fYei`]fY`WU"%&\$`a`]bi`hYg`k`cf`_`ž`]bWk`X]b[`g\cfhUbgk`Yfž`a`i`hd`Y`Wxc]W`UbX`cdYb!YbXYX
ei`Ygh]cbgžg\cfhk`f]h]b[`hUg_g`UbX`fYZYW]cb`cb`ghi`XYbhgf]YUfb]b[`bYYXg`UbX`dfc[`fYgg": YYXVUW`cb`YUWk
dUfhj`]U`a`Uf_]b[`fi`Vf]Wk`]h`]bX]j`]Xi`U`Wta`a`Ybthg`H\]g`]g`hY`Z]bU`UggYgga`YbhHUg_`Zc`f`UfhYbXUbwW
di`fdcgYg"

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

Dcflz`c`%Xi`Y. `&&#'\$' #%- `f(`da`Ł

Dcflz`c`&Xi`Y. `&*#\$(#%- `f(`da`Ł

5ggYgga Ybh' . `HYgh

GHUfhXUHŸ. Bch5dd]WUV`Y

@Yb[h. `* \$a]b

8YHJ]`g. `H\Y`hYghk`j`VY`WcbXi`WYX`j`]U`hY`@A`G`]b`WUgg`" `hWcbg]ghcZUi`hca`Uf]WU`ma`Uf_YX`ei`Ygh]cb

hmdYg'fY"["a i `hjd`Y`Wxc]Wžg\cfhUbgk Yfž'UbX'a UHw]b[Ē'UbX'`bX]j]Xi U`m[fUXYX'ei Ygh]cb'hmdYg'fbdYb!
YbXYXžg\cfhH'I hgĒ": YYXVUW_j]U'Ui hca Uh]WwčffYW]cb'Ug'k Y`Ug'`bX]j]Xi U`Wca a Ybhg'UbX'gUa d`Y
Ubgk Yfg"

5ggYgga Ybh(. 'GdYU_]b['HUg_

GHUfhXUH.

5 hYbXUbW F Yei]fYa Ybhg

Gh XYbhg UfY gfhcb[mYbWci fU[YX'hc UhhYbX'U''WUggYg UbX'fYj]Yk ''YWhi fY'fYWc fX]b[g"

7 ci fgY'GWXYXi `Y

[J \]Yk WUgg'ha YhUVY](#)

H]a YhUV`Y`

8UhY	HmdY	7cbhYbh
K YY_% '% : YVfi Ufm! &(

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

- 6cc_-'?cbtU_hY. '5`7ca a i b]WUhj`Y`5ddfcUWX` , Y`f&\$%+£

F YWca a YbXYX`F Ygci fWg

- 6cc_-'?cbtU_hY. '5`7ca a i b]WUhj`Y`5ddfcUWX`'5fVY]hgVi WX`K cf_Vcc_#@UV`f&\$%+£
- 6cc_-'GVXf]tY` , Vi b[g[fUa a Uh_`f&\$%\$£
- 6cc_-'9ggYbh]U` ; fUa a Uf`cZ; Yfa Ub`f&\$%&£
- 6cc_-'GVXUi a fg`Ci h]bY`cZ; Yfa Ub` ; fUa a Uf`f% - +£
- 6cc_-'<Ua a Yffg` ; Yfa Ub` ; fUa a Uf`UbX`I` gU[Y`f% - %£

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

H\Y`Wci fgY`k]`VY`Zcfa U`mYj U`i UhYX`j]U`_ k7j bWd]W UW

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

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

≠mci`YbWci bHYf`U`dfcV`Ya`k`Yb`U`H`Ya`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`''`'`%cf`Ya`U]`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`fI`*)`XUmg`U`mY`UfL`≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhXi`Y`hc`U`ZU`hik`]h`Hi`fb]h]b`mci`a`Um`Udd`mi`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghfY`hU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhfU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`UbhXcW`a`Yb`hg`L`hc`
]bWi`XY`Ug`Yj`]XYbW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`≠mci`Ya`U]`9I`HYfbU`Gi`ddcfhmc`i`k`]`

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 hW`YX]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 hW`YX]h`UbX`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
]bWi XYg`dfcj]X]b[`mci f`k cf_]hc`UbchYf`gh`XYbhVYZc`fY`hY`Xi Y`XUHY`Zc`f`Zc`hY`di fdcgY`cZ`hY`a

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wc'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'W'dhUV'Y'I gY'cZ I BGK '⇒H'F'Ygci f'W'g'Dc`]W'h
- VY'Uk UfY'cZ'U'g'U'X'U'f'X'g'c'Z'V'Y'\U'j]ci f'Y'I d'Y'W'X'c'Z'Y'j Y'f'm'c'b'Y'']b'U'Y'I BGK 'W'c'a a i b]m
- 'c'W'U'h'g'Y'f'j]W'g'U'bx'j'b'Z'c'f'a U'h'c'b'U'V'c'i h'l BGK 'U'bx'I BGK '@]V'f'U'f'm

Gca Y'cZ'U'g'Y'U'f'Y'U'g'k]''V'Y'Z'J'a]]U'f'U'c'm'c'i ž'c'h'Y'f'g'k]''V'Y'b'Y'k "'; U]b]b['U'g'c'X'i bXYfghUbx]b['cZU''U'Y'f'Y'U'h'X'U'g'd'Y'W'g'c'Z'9@-G'9'k]''\Y'd'm'c'i 'a U_Y'U'Y'a c'g'h'c'Z'm'c'i f'g'h X]Y'g'U'hl BGK ""

[\h'c'.#\]j V'Y'W'f'i \]X'Y'g''\]V'f'U'f'm'i b'g'k "Y'X'i "U'i #' \]g'Y'#\]V'c'i h' \]g'Y](#)

5 WUXYa]WbZcfa Uh]cb`

: cfYggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`rc.

- fYei Ygh]Zc`fYI hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZY`midc`]WYg/

