



# ARTS3330

@Ub[ i U[ Yg'7 Udghc bY. 'HfUbg`Uh]c b'UbX' ðhY fdfYh]b[

HYfa `Hk c`#`&\$&%



7ci fgY'8YHJ]g

7fYX]hDc]bqg '\*

Gi a a UfmcZhY'7ci fgY

h]g'WUdghcbY'Wci fgYz'mci 'k ]'VY'gi ddcfHYX']b'hY'dfcZYgg]cbU']gUhc'b'cZmci f'Ub[ i U[ Y'g\_]g'h'fci [ \  
Ui h.Ybh]WfUbg'Uhc'b'UbX']bhYfdFYh]b[ 'hUg\_g'hU\_Yb'Zca 'U'fUb[ Y'cZVcbhYa dcfUfmz'fYU'!k c'fX'WcbhY' hg''H\Y  
Wci fgY'k ]'UmihY'Zci bXUhc'b'Zcf'mci 'hc'Yb[ U[ Y'k ]h'hY'dfcZYgg]cb'k \YfY'mci 'k ]'VY [ i ]XYX']b  
Yg'fU'g\]b[ 'U'gci bX' i bXYfg'fU'X]b[ 'cZhY'hY'cfm'UbX'd'fUW]W'cZ'fUbg'Uhc'b'UbX']bhYfdFYh]b[ ]b'cW]z  
bUhc'bU'z'UbX']bhYfbUhc'bU'WcbhY' hg''

Mci 'k ]'dUfh]WdU'Y' ]b'V'YbXYX'YUfb]b[ 'Wcbg]gh]b[ 'cZVch'cb]bY'UbX'ZJW!hc!ZJW'YWh' fYg'UbX'hi' hc'f]U'g"  
@YWh' fYg'k ]'VY'g\UfYX'UW'fcgg'U''Ub[ i U[ Yg'UbX'k ]'X]fYWh'm']b\_'hc'U'cg'hcZcb']bY'a UH'f]U'g'UbX'hUg\_g  
k \]X'k ]'gi ddcf'hmci ]b'mci f'ck b]bXYdYbXYbhXYj Y'cda Ybh'cZmci f'fUbg'Uhc'b'UbX']bhYfdFYh]b[ 'g\_]g  
fY'U'hj Y'hc'mci f'i b]ei Y'Ub[ i U[ Y'dfcZ]WYbW'h' H\]g'g'fY]bZ'fW'X'Vmi' hc'f]U'g']b'k \]X'mci 'k ]'d'fUW]W'mci f  
V']b[ i U'g\_]g']b'Vch'Ub[ i U[ Y'X]fYW]cbg'UbX'hU\_Y'dUfh]b'dYYf! 'UbX'gY'Z'UggYgga Yb'h'

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

%' UbU'mgY'hY''b[ i ]gh]WZYUhi fYg'cZ'fUbg'U'fYX'UbX']bhYfdFYh'fY' hg']b'UWUXYa ]WUbX'dfcZYgg]cbU'  
ZY'Xg  
&" Ya d'cmihY'cf]Yg'cZ'fUbg'Uhc'b'UbX']bhYfdFYh]b[ 'hc']bZ'ca žXYj Y'cdž'UbX'↑ gh]Zm'fUbg'Uhc'b'UbX'  
]bhYfdFYh]b[ 'Wc]W'g'UbX'dYfZ'ca UbW']b''bY'k ]h'dfcZYgg]cbU'Y'h]Wg  
' " XYj Y'cd'UbX'Udd'mV']b[ i U''Ub[ i U[ Y'g\_]g'hc'fY'Yj Ubh'UbX'dfcZ]WYbW'h'Udd'f'c'f]U'f'fUbg'Uhc'bž  
]bhYfdFYh]b[ ž'UbX']bhYfW'hi' fU'Wca a i b]W]hc'b'hUg\_g  
( " W]h]ei Y'WcbhYa dcfUfm'fUbg'Uhc'b'UbX']bhYfdFYh]b[ 'hY'cf]Ygž'fYgYUfW'UbX'dfcZYgg]cbU'Y'h]Wg  
)" g\ck W]gY'U'dfcZYgg]cbU'dc'f'Z'c'cZV']b[ i U'hUg\_g']b'fUbg'Uhc'b'UbX']bhYfdFYh]b[

HYUW]b[ 'G'fU'Y' ]Yg'

H\]g'V'YbXYX!YUfb]b[ 'Wci fgY'Wca V]bYg'ZJW!hc!ZJW'UbX'cb]bY'j ]XYc'YWh' fYg''H\Y'YWh' fYg'U'ck  
gh' XYbh]cZU''Ub[ i U[ Yg'UbX'X]fYWh]cbg'hc''YUfb'Zca 'YUW'ch'Yfzi bXYfg'fU'X'g]a ]U'f'UbX'i b]ei Y  
W'U''Yb[ Yg']b'X]ZY'fYbh'Ub[ i U[ Yg'UbX'W'hi' fYgž'UbX'YUfb'hc'c] Y'f'Wca Y'h'YgY'i g]b[ 'fUbg'Uhc'b'UbX'  
]bhYfdFYh]b[ 'hY'cf]Yg'Ug'k Y''Ug'dfcZYgg]cbU'Y'h]Wg''H\YfY'UfY'Zci f'cb]bY'j ]XYc!fYW'fYX'YWh' fYgž'Ug'k Y''  
Ug'k'c'ZJW!hc!ZJW'cbYg'Z'cf'hY']b]f'cXi W]cb'UbX'W'cbW'g]cb" K ]h]b'Z'f'f]b[ \hmZJW!hc!ZJW'hi' hc'f]U'gž  
gh' XYbh]k ]'\Uj Y'hY'cdd'cf'hi b]m'hc'Z'W'g'cb'hY]f'ck b''Ub[ i U[ Y'UbX'gcW]cW'hi' fU'dfcZ]WYbW]Yg'UbX'  
XYj Y'cd'h'fci [ \ 'U'fUb[ Y'cZgY'Z'X]fYWh'Xž'dYYfz'UbX'hi' hc'f'ZYXVUW\_'i g]b[ 'cb]bY'a UH'f]U'g'UbX'ZJW!hc!  
ZJW'fUbg'Uhc'b'UbX']bhYfdFYh]b[ 'd'fUW]W''

## 5ggYgga Ybh

H\Y`UggYgga Ybhk ]`VY`ci h]bYX`]b`hY` ǂhfcXi Wtcfm`YWñi fY`UhHi YgXUm(!) `cb`%>i bY`]b`K`YY`\_%ž  
 XY`j] YfYX`fYa`cH`mž`UbX`X]gW`ggYX`]b`hi`hc`f]U`g`df]c`f`hc`hY`gi`Va`]gg]cb`cZYUW`Ugg][`ba`Ybh`ǂghfi`W]cbg  
 k ]`VY`dcghYX`]b`A`ccX`Y`2`5ggYgga YbhfYgci`fWg`"

## 5ggYgga YbhHUg\_g

5ggYgga YbhHUg_	K`Y][` \h	8i`Y`8UH`	Ghi`XYbh@YUfb]b[ Ci`hWta`Yg`5ggYggYX
A`ccX`Y`E`i`]nnYg`	`\$	K`YY`_g`&ž`ž`ž`ž`+`UbX`-`	&ž`(`
:`cftb][` \hmUgg][`ba`Ybhg`	`\$	K`YY`_g`ž`ž`UbX`,`	%ž`&ž`ž`ž`(`
Dc`fhž`c`c`	(`\$	\$`*`#`\$,`#`&`\$`&`%`\$`(\$`.\$`\$`DA`	%ž`&ž`ž`ž`ž`(`

## 5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`A`ccX`Y`E`i`]nnYg

GHUfhXUH`. `Bch5dd`]WUV`Y

8YHU]`g.

:`ci`f`f`UbXca`]nYX`a`i`h`d`Y`!`W`c]W`ei`]nnYg`f`i`d`Y`f`ei`]n`k`]h`%`\$`]h`Ya`g`YUW`E`cb`YUW`c`Z`h`Y`j`]X`Y`c`Y`W`ñi`f`Y`g  
 UbX`h`Y`]f`f`Y`ei`]f`Y`X`f`Y`UX`]b`/`UbX`cb`Y`W`ta`d`f`Y`Y`b`g`j`Y`\_`b`c`k`Y`X`[`Y`ei`]n`W`c`j`Y`f`]b`[`h`Y`\_`Y`m`W`c`b`W`d`f`g`]b`h`Y`  
 W`ci`f`g`Y`f`%`\$|`E`"

ǂX]j`]Xi`U`k`f`]h`Y`b`Z`Y`X`V`U`W`\_`k`]`V`Y`d`f`c`j`]X`Y`X`c`b`h`Y`ei`]n`]h`Ya`g`"

Hi`fb]h]b`g`Y`h]b[`.`H`]\`g`]g`b`ch`U`Hi`fb]h]b`U`gg][`ba`Ybh

5ggYgga Ybh&.`:`cftb][` \hmUgg][`ba`Ybhg

GHUfhXUH`. `Bch5dd`]WUV`Y

@Yb[`h`. `U`h`f`U`b`g`U`h]c`b`c`f`]b`h`Y`f`d`f`Y`h]b[`UbX`)`\$\$`k`c`f`X`g`Y`U`W`f`Y`Z`Y`W`j]c`b

8YHU]`g.

H`\\`f`Y`Z`c`f`b][` \hmUgg][`ba`Ybhg`]b`c`j`]b[`h`Y`U`b`U`m]g`]g`UbX`W`ta`d`U`f]g`c`b`c`Z`a`c`b`c`]b[`i`U`U`b`X`V`]b[`i`U`  
 a`i`h`ja`Y`X`]U`k`]h`f`Y`Z`Y`W`j`Y`W`ta`a`Y`bhg`f`&`\$`k`c`f`X`g`f`U`b`g`U`h]c`b`#`b`h`Y`f`d`f`Y`h]b[`#`gi`V`h]h]b[`UbX`)`\$\$`k`c`f`X`g`  
 f`Y`Z`Y`W`j`Y`W`ta`a`Y`bhg`Y`U`W`U`gg][`ba`Ybh`"

A`U`f`\_]b[`k`]h`U`fi`V`f]W`k`]h`]b`X`j`]Xi`U`k`f`]h`Y`b`Z`Y`X`V`U`W`\_`UbX`[`f`ci`d`!`V`U`g`Y`X`c`f`U`Z`Y`X`V`U`W`"

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

D`YUgY`fYZf`h`h`Y`5F HG`' '\$`A ccX`Y`g]h`2`5ggYgga YbhfYgci fWg`2`": cfb][ \hm]bYfdYh]b[  
Ugg][ ba Ybh]bgfi W]cbg`"Z`XYf`Z`f`a cfY`XYHJ]"`

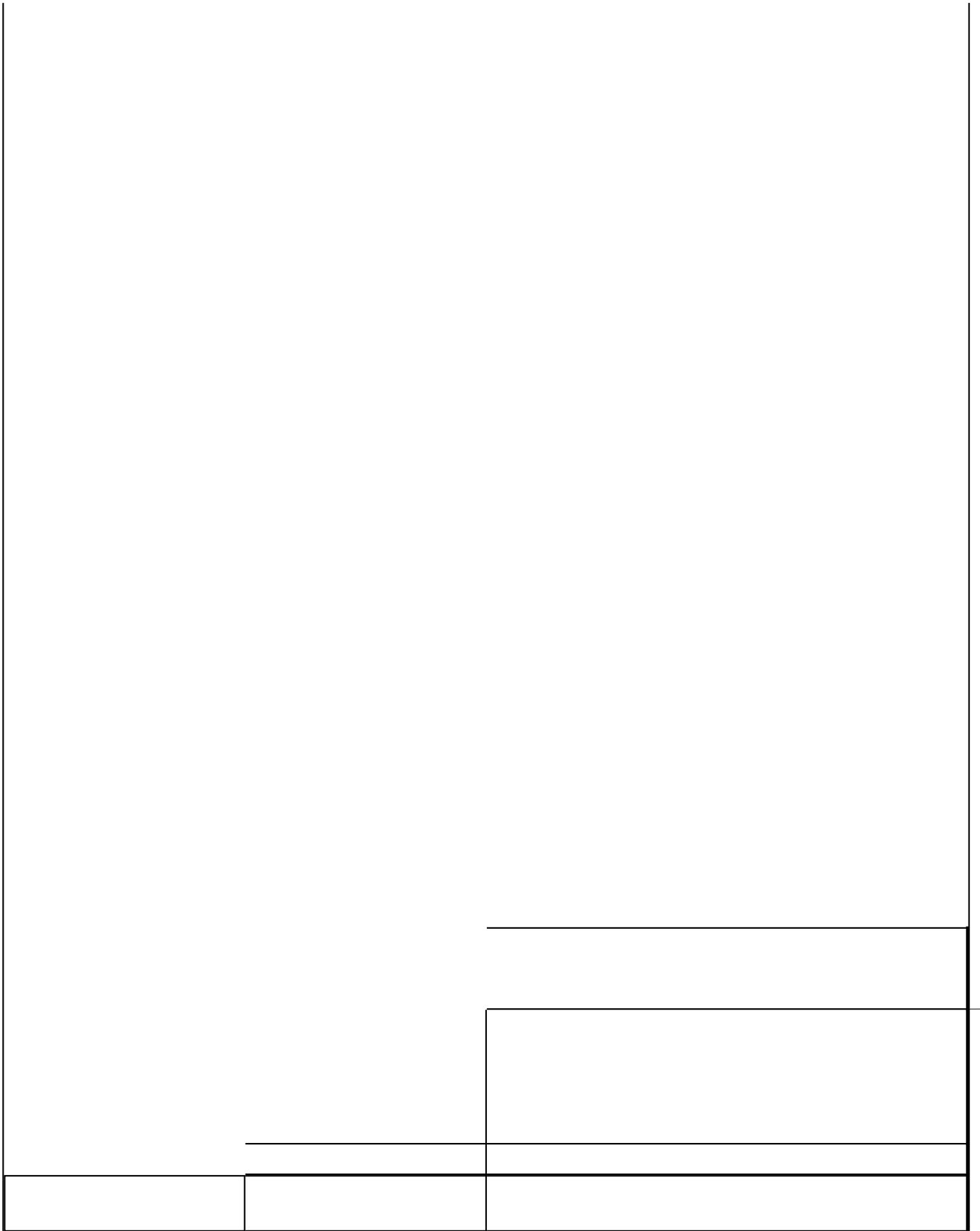
Hi fb]h]b`gYH]b [ . H\]g`Ugg][ ba Ybh]g`gi Va ]hYX`h`fci [ \`Hi fb]h]b`UbX`ghi XYbtg`WUb`gYY`Hi fb]h]b`g]a ]`Uf]m  
fYdcfg"

5ggYgga Ybh` . DcfhZ`]c

GhUfhXUH. `Bch5dd`]WV`Y

8YHJ]`g.





F Ygci fWg

DfYgWf]VYX F Ygci fWg`

DfYgWf]VYX F Ygci fWg`



' )) \*) \$- "&\$%\$%\$+- - \$' - \*

- <c`mA ]\_\_Y`gcbž ěhYfdYhYfYh]Vg. '5'fYj ]Yk`cZhY`hfUX]h]cbU`UbX`Y`YWfcb]W`]hYfUhi fYž ěhYfdYh]b[ žJ c`i a Y') žBi a VYf`%ž&\$\$\$ždd"(-!) \*f] Ł"

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

Gh XYbhfYgdcbgYg`hc`h]g`VŁi fgY`Uj Y`VYYb`j Yfmidcg]h] Y": c`ck]b[ `gh XYbhfYei Yghg`Zcf`a cfY`WŁbUWh  
`ci fg`UbX`cb[ Yf`h`hc]U`gžUg`cZ&\$&%ž`hY`Yb[ h`cZhY`h`hc]U`g`Ug`VYYb`YI h`bXYX`hc`&`ci fg`UbX`hY  
bi a VYf`cZhi hc]U`g`]bWfYUgYX`hc`g]] `h`hc]U`g"

Gi Va ]gg]cb 'cZ5ggYgga YbhiHUg\_g

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

Ʒmci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UHYa dh]b[ 'hc'gi Va ]hmc i f'Ugg][ ba YbhiHfci [ \ 'Hi fb]h]bž'd'YUgY  
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'-', ) " ' ' %cf'Ya U] 'hYa 'cb'YI HYfbU'HY'ggi ddcfh4 i bgk "YXi "Ui "'Gi ddcfh  
\ci fg'UfY', .\$\$Ua '—%\$.\$\$da 'cb'k YY\_XUmg'UbX'-. \$\$Ua '—) .\$\$da 'cb'k YY\_YbXg'fl \*) 'XUmg'U'mYUfl" 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'mZcf'Ub'YI HYbg]cbž'Vi hmc i  
a i ghfYhU]b'mci f'h]W\_Yhbi a VYf'Zca '9I HYfbU'Gi ddcfhfU'cb[ 'k ]h'Ubmc'hYf'fY'Yj UbhXcW a Ybhtg'hc  
]bWi XY'Ug'Yj ]XYbVW'hc'gi ddcfhmc i f'YI HYbg]cb'Udd'jW]h]cb" Ʒmci 'Ya U] '9I HYfbU'Gi ddcfhmc i 'k ]  
Ui 'ca U]WU'mfYW]j Y'U'h]W\_Yhbi a VYfž'Vi h]Zmci 'HY'Yd\cbY'mci 'k ]'bYYX'hc'gdYW]Z]WU'mUg\_ 'Zcf'cbY"  
Hi fb]h]b 'U'gc'dfcj ]XYg'i dXUH'g'cb'hAY]f'gmghYa 'ghU'g'cb'Hk ]HYf"

; YbYfU'mž'UggYgga YbhiHUg\_g'a i ghVY'gi Va ]hYX'Y'YWfcb]WU'mj ]U'Y]h'Yf'Hi fb]h]b'cf'U'A ccX'Y  
Ugg][ ba Ybht' Ʒ ]bg]h]bVW'g'k \YfY'h.]g ]g'bc]hd]cgg]V'Yž]hk ]'VY'gh'UHYX'cb'mci f'Wci fgY'g'A ccX'Y'g]h'k ]h  
U'HYfbU]h] Y'gi Va ]gg]cb'XYhU]g"

: cf]bZcfa U]cb'cb'\ck 'hc'gi Va ]hUgg][ ba Ybht'cb]bYj ]U'A ccX'Y. \hhdg.#gh XYbhi bgk "YXi "Ui #ck!  
gi Va ]hUgg][ ba Ybhta ccX'Y

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

D`U[ ]Uf]ga `]g`i`g]b[ `h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[ `h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`\_`Y`a` `U`b`m`  
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[ `h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[ `Z`c`a` `U`g`c`i`f`W` `k` ]h`c`i`h`U`W`\_`b`c`k` `Y`X[ `Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[ ]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k` ]b[ `W`U`h`Y`[ `c`f`]Y`g.

- i bXYfgHUbX'mci f'f][ \hg'UbX'fYgdcbg]V']hYg'Ug'U'gh XYbhUhl BGK
-

5 WUXYa ]W**⊖**Zcfa Uh]cb

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