





L#.2# '!5146' ./4&7!

E1+(4/%!ACD!!!!!!- \$02' F4\$!O.4&41+!012!U' / ' O.\$%!

E1+(4/%!ACDU!!!!!!P' O.141+!) \* F F#14&7! " 4\*( \* +7!V \* 2#('!

)#..4\$#(#F!012!Q1/&.#\$&4\* 1!) \*#./' /!\_O#+%&G!

L#.2# '!5146' ./4&7!

ES)Q!>W?!!!!!!V#(&4\$#(&#.O(4/ F!012!E2#\$0&4\* 1!

5HT0.2!" \*#12!)(O//4\$G!M/#F F' ./!>CAG!@!H.' / ' 1&N!

E1+(4/%!P01+#0+'! - ./!MAC^3%!012!AA^4%!+.02' /N!

O.4&41+!Q1&' 1/46'!) \*#./' !MAA^8%!012!A>^8%!+.02' /N!

) \*#./' /!H' .!O\$02' F4\$!&' .FG!

j>CA=@>CA<G! =i=!

j>CAW@>CABG! =i=!

j>CA<@>CA?G! =i=!

j>CAB@>C>CG! =i=!

j>CA?@>CADG! =i=!

j>C>C@>C>AG! =i<!

j>CAD@>CAGG! =i=!

j>C>A@>C>>G! =i=!

j>CAG@>CAWG! =i=!

### 3>(' \$&' 2!) \*1, ' . ' 1\$' !L. ' / ' 1&O&4\* 1 /!

\R\*\_!\_T\*!&% '!30F' G! -!U' \$\* 1/42' .O&4\* 1!\* ,!&% '!3(06' !V \* &% '!41!\_ \* 14!V \* ..4/ \* 1c/!"' (\*6' 2!

012!3' (' \$&! ; 0.( ' F!U' 104//01\$' ! [4\$&4\* 1K!gB^3%! - 11#0(!) \* 16' 1&4\* 1K!) \* ((' + ' !P01+#0+ ' !

- // \* \$40&4\* 1K!UO(' 4+%iS#. %OF9!R) 9! - H.4(!>CAB!

!!

\O% ' 1!k&% ' !S. ' 0F!4/!&% ' !\_.#&%cG!R0..0&46' ! - + ' 1\$7!41! I \* .0!R' O('! ; #./&\* 1c/!

\_% ' 4.!E7' /!O' . ' !OO&\$%41+!X \* 2K!gW^4%! - 11#0(!) \* 16' 1&4\* 1K!) \* ((' + ' !P01+#0+ ' !

- // \* \$40&4\* 1K!) %4\$0+ \* 9!QP9! - H.4(!>CAW!

\-HH. ' % ' 1241+!UO\$' !41!&% ' !- ,.4\$01! - F' .4\$01!3&#24' /!) (O//. \* \* FK!gg^3%! - 11#0(!

) \* 16' 1&4\* 1K!) \* ((' + ' !P01+#0+ ' ! - // \* \$40&4\* 1K!) \* (#F!409!V : 9! - H.4(!>CAG!

\3&01241+!41!&% ' !b' 4(G!) (O//9!) \* (\* .4/ F9!012! - #24' 1\$' !41!^0F' /!O' (2\* 1!^\*%1/ \* 1c/!\_ % ' !

- #&\* I4\* +.0H%7!\* ,!01!Ea@) \* (\* . ' 2!V01!012!\_ \* 14!V \* ..4/ \* 1c/!kU' \$4&0&4,Kc` !>>^12! - 11#0(!

-\$02' F4\$!) \* 1, ' . ' 1\$' !, \* .!5R) @) %OH' (! ; 4((c/!V \* \* . ' !512' .+.02#0&' !U' / ' O.\$%!

-HH. ' 1&4\$' !L. \* +.0FK!\_ % ' F' G!\_ % ' !L \* (4&4\$/!\* ,!) \* (\* .4/ FG! - !X(\* IO(!) \* 1&' a&k!3\$%\*(O.!H01' (K!

) %OH' (! ; 4((9!R) 9! - H.4(!>CAD!

\[4+%&! \* .! [4+%&mG!V4+.O&41+!"(O\$8!Q2' 1&4&4' /!012!&% ' !LO//41+!\_ . \* H' K!LO1' (G!\_ .01/ .O\$40(!

Q2' 1&4&7G!) %01+41+!S' ,414&4\* 1/!\* ,!"(O\$81' //41!&% ' !Ag^3%! ) ' 1&#.79!\_ % ' ! ; 0.( ' F!

U' 104//01\$' !E.09!012!&% ' !R' T!V4(( ' 114#FK!) \* ((' + ' !P01+#0+ ' ! - // \* \$40&4\* 1K! ; \* #/ &\* 19!

\_n9! - H.4(!>CAD!

" \*(&\*1!=!

) (0//.\* \* F!M\$\* @\*.+014] '.NK!V041! - 11#0(!V ' ' &41+K! - F ' .4\$01!3&#24' /! - // \*\$40&4\*1K!  
\_ \* . \* 1&\*9!) 010209! : \$&\* I ' .!>CA?!

!\\_ \* 14!V\* ..4/\* 1!) \* 1&' /&0&4\*1/G! -!V#(&4\$#(&#.0(9!X(\* IO(!L' ./H' \$&46' !\*1!O.4&' .!012!  
Q2' 1&4&7K^!U '\$ ' H&4\* 1!3&#27!3 \*\$ ' &7!D<sup>89%</sup>! "4011#0(!) \* 1, ' . ' 1\$ '9! [ \* .&!O071 '9!QR9!3 'H&' F I ' .!  
>CA?!

!\S4/\$#//41+![41241+/,.\* F!j \*#1+!"(0\$8!V0('!3&\*.7!)4.\$('/!O&!5 -K!"(0\$8!V0('!3#F F4&K!  
\_% '!5146' ./4&7!\*,!-8.\* 19!-8.\* 19! : ; K! -H.4(!>CA?!

"\*(&\*1!<!

\_O(8/9!P '\$&#.' /9!012!Q1&' .64' T /!

5146' ./4&7!\*!-8.\*1!

!"#\$%#&'\$( )' \* +&%, -+"" . \$/0102\$2+&9!\\_ ' O\$%41+!- ,.4\$01!- F ' .4\$01!3&#24' /!MH.\*+.0F!  
4FH(' F ' 1&0&4\*1N9`!P ' IO1\*1!\_ .04(!; 4+%!3\$% \*\* (9! [ .4/\$\*9!\_ ' aO/!M64.&#0(NK!R\*6' F I ' .!Ag9!  
>C>A!

!"#\$%#&9!\ - 1!Q16' /&4+O&46' !- HH.\* O\$%6!) #..4\$#(#F!" #4(241+!012!3&.0&' +4' /!\*1!

?#/2>&#&9!\ - 1!E6' 141+!T48%! I \* .OG!\_% '4.!E7' /!O ' .!O0&\$%41+!X\*2!012!&% '! ; 0.( ' F!  
U' 104//01\$ '!V\*6' F' 1&K! "(O\$8! ; 4/&\* .7!V\*1&#!E6' 1&K!R\* .&%T' /&! - 8.\*1!L#I (4\$!  
P4I .0.79! [ ' I.#0.7!B9!>CAD!

@0, />, , \$(29!R\* .&%T' /&! - 8.\*1!L#I (4\$!P4I .0.7c/!" \*\*8!) (#I!3' .4' /!\*1! ; 0.H' .!P' 'c/!\_ \*!  
Y4((!0!V \* \$841+I4.2!012!X\*!3' &!O!O0&\$%F019!^#(7!A<9!>CA?!

5 - !3\$%\*(0./!S07!LO.&4\$H01&9!>CA?!

A4\$!>\$2+&9!5 - 3Q3!M5146' ./4&7!\* ,!- 8.\*1!3&#2' 1&!Q11\*60&4\*1!37FH\*/4#FN9!>CA<!

3(402#)'=># , 2'6&# , # (2#&9!E2#\$0&4\*10(!\_0(' 1&3' 0.\$%!3#FF' .!L. \*+.0F9! - 8.\*19!  
: %4\*9!>CA<!

L01' (4/&9!L - 3 : c/!\ - /8!O!" (O\$8!L' ./ \*1`!. \*#12&0I(' !24/\$#//4\*19!>CA=!)

L#.2# ' !5146' ./4&7!

3(2#&40#5##K!\L#.2# ' !L(O1/!VPY!) \* F F' F \* .0&46' !E6' 1&/K' !O" - - K!RLUK!O' /&!  
P0,07' &&' 9!QRK!\^01#0.79!>CA=K!%&&H/GiiTTTTKT I00K\* .+i&' .FiH%4(O&%4O@I \* (&\*1q/&' 0FiC!

3(402#)'=># , 2' . \$/0102\$2+&9!\O% ' 1!Q2' 1&4&4' /!012!) #(&#.' /!) \*((2' G! - HH.\*0\$%41+!  
) \*1,(4&8!0/!01! : HH\* .&#14&7!, \* .!) %01+' K' !\_% '! ) \*11 '\$&4\*1/!Q1 /&4&#&' !\*1!P' 02' ./%4H!012!  
S46' ./4&7!0&!L#.2# ' !5146' ./4&79!>CA>!

=># , 2' ?#/2>&#&9!\Q1& . \*2#\$&4\*1!&\*!" (O\$8!O\* F' 1!O.4&' ./9' !O0I0/%! - . ' 0!P4, ' &4F' !  
P' 0.141+! - // \* \$40&4\*1!MO - PP - N9!>CAC0!>CA>!

3H' (F01!) \* (( '+' !M' aH' .4' 1\$' /!\* ,!24/&41\$&4\*1N!

!2>)#(2'6\$ (#10, 29!\ - ! ) \*16' ./O&4\*1!T48%!&% '!1\*6' (4/&!L' 0.(!) (' 0+' !012!H\* ' &!3\*140!  
301\$%' ]9' !3H' (F01!) \* (( '+' 9!>CCA!

! "+#% , "#& , + ( , \* .!H4(\*&!\$\*#./ ' !O&!3H' (F01!) \* (( '+' !\*1!&% '! ) 464(!U+&%&/!V\*6' F' 1&9!  
>CCC!

\_%' !\$(0//!\$\*1\$(#2' 2!T48%!/&#2' 1&/!+\*41+!&\*! - (OIOFO!&\*!HO.&4\$4HO&' !4!&% '! ?<@F4(' !  
FO.\$%! . '@' 10\$&F' 1&K!Q! F' &!T48%!&% '! " \*0.2! ,!\_ .#/' ' /!&\*!&O(8!O! #&!&% '! ' aH' .4' 1\$' K!

!

L. \* , ' //4\* 10(!3' .64\$' !

5146' ./4&7!\* ,!- 8.\*1!E24&\* .40(! " \*0.29!>C>C@!

- . ' 0!E24&\* .! , \* .!514&' 2!3&0&' /!P4&' .0&#.' !012!) #(&#.' !i! - ,.4\$01! - F' .4\$01!P4&' .0&#.' !  
012!) #(&#.' 9!P4&' .0.7!E1\$7\$( \*H' 2409!>CAB@!

U' 64' T' 2!, \* .!\_T' 1&4' &%@ ) ' 1&# .7!P4&' .0&#.' !

[O\$#(&7! - 264/ \* .9!S' (4+%&9!>CAg@>C>A!

[O\$#(&7! - 264/ \* .9! " 35!M" (O\$8!3&#2' 1&/!514&' 29!, \* .F' .(7!L - 3 : N9!>CA<@>CAD!

[O\$#(&7! - 264/ \* .9!L - 3 : !ML01! - ,.4\$01!3&#2' 1&! : .+014]O&4\*1N9!>CA<!

"\*(1!g!

**B@ : 3C3!DEBD3FA'AG6AE3AC7A'**

% '!5146'./4&7!\*;!-8.\*1G!

; \*1\*./!-264/\* .9!E1+(4/%!S 'HO.&F '1&9!>CAB@!

S4. '\$&\* .9!\_'0\$%41+!E1+(4/%!0/!0!3 '\$\*12!P01+#0+'!M\_E3PN9!>CA=@>CAW!

!!

L#.2# '!5146'./4&7G!

X'1'.0(!3&0,,@\_'FH\*.0.7!-HH\*41&F'1&9!L#.2# '!5146'./4&7!"(0\$8!)#(&#.0(!)'1&' .9!

>CA=!

) \*H7!E2&9H7!E2&9H7!7!27!E ) 2587.960.3(>CA=) T j \$08.28619.8893.840.96ref/G2gg0.28m/TH7!'9#2&1F2#



