





!  
!!!!!!!!!!!!!!!!!!!!g" #, (!. \$!5R#\$0&N!0\$!2F(!X.201(!5N(%0E.\$!L#6020E.6!QF#' RF2!#4!` 0660. N!!  
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!5, (&:i!! #J\$5'6,+(\*6\$K(#2(#!\<!?\A:!C@)=H!!  
!  
!!!!!!!!!!!!!!!!!!!!!!!!!!!!

!!!!!!!!!!!!!!g-010\$R!\_\$.i!! "#\$<'2#&@')\*7\$<'28,+ '2:J(, 2(N9(%\!:C@)\H!

!

!!!!!!!!!!!!!!' : ; 2,&5(. !8&&6<&!69. !8. ,0\$),62&!

!

!!!!!!!!!!!!!!gl O(Q##!. \$I !2F(!L#6020E&!#4!U(\$ (W. 6:i !<6\*),+7\$O\*3\*: ,2#>\$h' \$(!C@)\*H!!!!!!!!!!!!!!

!

!!!!!!!!!!!!!!g56. &7. !JF# ' 6I !M(E6. %(!. !J([ ' . 6!5&&. ' 62!J2. 2(!#4!M0&. &2(%i !- 2('')\*3#%\*,67\$I #J.!!

!!!!!!!!!!!!!!5' R' &2! =: !C@) =H!

!

!!!!!!!!!!!!!!g56. &7. !JF# ' 6I !M(E6. %(!. !J([ ' . 6!5&&. ' 62!J2. 2(!#4!M0&. &2(%i !

!

"!&!"



; (3\$#2(!511%(&&!

5W.%l (I :!<#2+#)\$/' )\$! #\*( " ,23\$HB(#66#2(#\$- J\*)8:!/ \$01 (%&023!#4!+ . 604#%\$0. :!J. \$2. !!  
!!!!!!!+%' K:!8. 66!C@)H!

5W.%l (I :!A26,2#\$\$! #\*( " ,23\$HB(#66#2(#!X#%2F (. &2(%\$!/\$01 (%&023:!J, %0\$R!C@))H!

!

6()E242)\$2\*; %4&'\$'O%&'() \*\*

+++++

!

g5E20#\$. 96(!+60N.2(!JE0(\$E(!. \$!S[, (%0(\$20. 6!SI' E. 20#\$!0\$!2F (!5%E20E:i \$- 2\$HB, .#2+, \*6\$! ''6E, +\$\$

\$\$\$\$\$\$\$\$\$\$\$/' )\$<6, & \*#F1. +, (#\$H81(\*+'). :!U. EF (6!+ . %&#\$!+ (\$2(%!O' \$0EF:!a (%N. \$3:!h' 63!C@C@H\$

I \*+, '2\*6\$<'66#3, \*#C'2'). \$<'12(,6\$ - 221\*6\$<'2/#)2(#.!X(W!\_%6(. \$&:- 5H!X#1(N9(%!C@)<H\$\$

- 221\*6\$I \*+, '2\*6\$<'2/#)2(#\$'2\$=\*(#\*\$28\$H+'2,(+7\$,2\$- &#),(\*2\$C,3''#)\$H81(\*+, '2:!X(W!\_%6(. \$&:- 5H!!!

!!!!!!!!!!!!!!O. 3!C@)\*H!

I \*+, '2\*6\$<'66#3, \*#C'2'). \$<'12(,6\$ - 221\*6\$<'2/#)2(#.!P#&2#\$:!OH5H!X#1(N9(%!C@)\*H!

!gP(2W((!\$!SN, .2F3!.\$!IVN. R0\$. 20#\$:i !2F (!N#. #)2\$5'6,+(\*6\$K(#2(#\$- ..'(\*+, '2\$- 221\*6\$O##+,23:!!

!!!!!!!!!!!!Z. \$E# '1(%!P+:!O.%EF!C@)=H!

!!!!!!!!!!!!!!gL#6020E. 6!O# ' %\$0\$R!0\$!+#N, .%. 201(!L(%&, (E201(:i !2F (!N#. #)2\$5'6,+(\*6\$K(#2(#\$- ..'(\*+, '2!!

!!!!!!!!!!!!!! - 221\*6\$O##+,23

!

"!)!"





O5!QF(&0&!+#NN022(!O(N9(%!0\$!+#NN' \$0E.20#&\$f!O0\$!3!\_jX(.66!R%. I' .2(IA:IV9%.F0N!!  
!!!!!!aF.60#' N;!; .2(!51(%3H!

!  
LFM!+#NN022(!f!Q.%.!P.66.%!!?!+F.0%A:!O. %R.%(2!U' I #6, F!?!+F.0%A:!h#F\$!O(&&0E7:!q.E7. %3!!  
!!!!!!JN02F!?!+F.0%AH!

/\$! (%R%. I' .2(!J(\$0#%QF(&0&!+F.0%h#\$.2F. \$!o' 0\$#\$(&!R%. I' .2(IA:h.E7&#\$\$` 066. %! !!  
!!!!!!R%. I' .2(IA:!M. \$0(6!J2%0R6(!?R%. I' .2(IA:!O. %R#2!5I .N&!R%. I' .2(IA:!.EF6. \$!a066(&, 0(!!  
!!!!!!R%. I' .2(IA:!J061. \$!JEF' 22\$(%?R%. I' .2(IA:!O.22F(W!` (&2!R%. I' .2(IA:!O.22F(W!U3. \$!!!  
!!!!!!" .%0&!R%. I' .2(IA:!P([6(3!P%#W\$!/?55A!R%. I' .2(IA:!P%. \$! #P6' N!R%. I' .2(IA:!U3. \$!!  
!!!!!!L' 60&:!a.9%0(6. !M%. , (%?R%. I' .2(IA:J.%. F!O. \$%0d' (K!R%. I' .2(IA:!. &(3!+ .&#%2!!  
!!!!!!R%. I' .2(IA:!O.22F(W!O(%2(&!; .36. !" .(R!R%. I' .2(IA:!50I . \$!S. %\$(&2!R%. I' .2(IA:!SN063!!!  
!!!!!!+ #F(\$!R%. I' .2(IAH!

!  
/\$! (%R%. I' .2(!V\$2(%! 0&E0, 60\$. %3!O. ^%# + #NN022(!f!S%0\$!OEU#%23!R%. I' .2(IA:!. &(3!+ .&#%2!!  
!!!!!!?+F.0%!R%. I' .2(I

!!!!!!!!!!!!S2F0E&!U(, %(&(\$2.201(:!a(\$(%6!SI' E.20#\$!U(d' 0%(N(\$2!+#NN022(:!8. E' 623!J(\$2(:!!  
!!!!!!!!!!!!!!!!!!!!C@C@BCC#H!  
!!!!!!!!!!!!J#E0.6!JEO(\$E(!U(, %(&(\$2.201(:!8. E' 623!J(\$2(:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!C@)D!]!!  
!!!!!!!!!!!!!!!!!!!!C@)<#H!  
!!!!!!!!!!!!a' (&2!J, (.7(%!! =,A\$5)'3)\*&\$%\*7!8(9%' .%3!C)!C@)<#H!  
!!!!!!!!!!!!a' (&2!J, (.7(%!T#2#)\*+, '2\$- (+, '2:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!C@)<#H!  
!!!!!!!!!!!!a(\$(%6!SI' E.20#\$!U(d' 0%(N(\$2!+#NN022(:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!C@)D!]!!!  
!!!!!!!!!!!!!!!!!!!!C@)<#H!  
!!!!!!!!!!!!+F. 0%1J. 99.20E.6!+#NN022(:!+#66(R(!#4!-09(%6!5%2&:!C@)\*!]!C@C@#H!  
!!!!!!!!!!!!+#B+F. 0%!Q(\$' %(!. \$! !L%#N#20#\$!U(10(W!+#NN022(:!J#E0.6!JEO(\$E(!L((%!/02:!!  
!!!!!!!!!!!!!!!!!!!!C@)<BC@C)H!  
!!!!!!!!!!!!J#E0.6!JEO(\$E(!L((%!/02!Q(\$' %(!. \$! !L%#N#20#\$!+#NN022(:!+#66(R(!#4!-09(%6!5%2&:!  
!!!!!!!!!!!!!!!!!!!!C@)=!]!#\$R#0\$RH!  
!!!!!!!!!!!!SI 02#%0.6!P#.#! !:+6.%023!O.R.K0\$(:!+#66(R(!#4!-09(%6!5%2&:!C@)\!]!C@)\*H!  
!!!!!!!!!!!!" 0&2#%3!M(, .%2N(\$2!8. E' 623!J(.%EF!+#NN022(:!J, %0\$R!C@)\*H!  
!!!!!!!!!!!!+#B\_#R. \$0K(%.\$! !h' !R(:!S2F0E&!P#W6:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!!  
!!!!!!!!!!!!!!!!!!!!J, %0\$R!C@)>:!C@)D;!C@)=:!C@)\*H!  
!!!!!!!!!!!!J, (.7(%!+6. &&%#N!V\$&01 (!\_' 2:!+-5:!C@)D;!C@)=:!C@)\*:!C@)<#H!  
!!!!!!!!!!!!!!!!!!!!8. E' 623!5!10&(%2#!J#E%0.20E!J#E0(23:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!8.66!C@)T!]!C@)\*H!  
!!!!!!!!!!!!8. E' 623!5!10&(%2#!L0!JORN. !56, F. :!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!C@)\!]!C@)\*H!  
!!!!!!!!!!!!8. E' 623!J(.%EF!+#NN022(:!L#6020E.6!JEO(\$E(!M(, .%2N(\$2:!/01(%&023!#4!56. &7. !!  
!!!!!!!!!!!!!!!!!!!!8.0%9. \$7&:!C@)TH!  
!!!!!!!!!!!!8. E' 623!J(.%EF!+#NN022(:!L#6020E.6!JEO(\$E(!M(, .%2N(\$2:!/01(%&023!#4!56. &7. !!  
!!!!!!!!!!!!!!!!!!!!8.0%9. \$7&:!C@)CH!  
!  
!!!!!!!!!!!!J(.%EF!E#NN022(:!/W. %! !P#'\$! !5&&#E0.2(!M0%(E2#%!&' NN(%!C@C)H!  
!!!!!!!!!!!!L#%1#&2!+#' \$E06:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!8.66!C@)\*!]!#\$R#0\$RH!  
!!!!!!!!!!!!!!!!!!!!h' !R(:!Q28#)3)\*81\*#=#.#\*)(''\$\*28\$K(''6\*)67\$- (+,L,+7\$- J\*)8\$<' &@#+,+, '2:!&, %0\$R!  
!!!!!!!!!!!!!!!!!!!!C@)DH!  
!  
/5!JEF#6.%&!U(E(, 20#\$!S1(\$2&f!8.0%9. \$7&!. \$! !5\$EF#%. R(:!X#1(N9(%!C@)\*:!C@)<#H!  
!!!!!!!!!!!!!!!!!!!!L#%1#&2!J(.%EF!+#NN022(:!/01(%&023!#4!56. &7. !8. 0%9. \$7&:!C@)=!B!C@)\*H!  
!  
! L. \$(60&2!<' &&+##\$' 2\$+'#K+\*+1.\$'/N' &#2\$! #21)#\$? \$5)' &' +, '2\$N')E. "'@!!  
!!!!!!!!!!!!!!!!!!!!5, %06!C)!C@)=#H!  
!  
CH!K#)L,(\$+'\$+'#\$<' &&12,+7\$!  
!  
O#1 (%.2#%!<6,&\*#F'D.>\$\*28\$F1.+,\$\$<\*28,8\*#U')1&:!O#\$! .3!5' R' &2!C\)!C@C)H!  
V\$&2%' E2#%!\_&F(%!-04(6#\$R!- (. %\$0\$R!V\$&202' 2(:!g+#\$2(N, #%. %3!L#6020E&!#4!56. &7. :!J, %0\$R!  
!!!!!!!!!!!!C@C)H!  
O#1 (%.2#%!! "\$-\$-6\*.E\*\$<#2+#)!O' \$0E0, .6!+. \$! !0! .2(!8#%' N:!8.0%9. \$7&!X#%2F!J2. %!  
!!!!!!!!!!!!P#%#%' RF!&' NN(%!C@C@#H!  
O#1 (%.2#%!! "\$-\$-6\*.E\*\$<#2+#)!56. &7. !J2.2(!-(R0&6.2' %(!E. \$! !0! .2(!4#%' N:!&' NN(%!C@C@#H!  
gL. \$! (N0E!L#6020E&:i!#\$R#0\$R!W((763!; /5+!, '960E!1.0#!, %R%#N!4#E' &0\$R!#\$!! .2.B1!01(\$!  
!!!!!!!!!!!!, (%&, (E201(&!#\$!56. &7. \$!, #6020E&!.&E#\$\$\$(E2(!!2#!2F(!\$.20#\$\$.6!. \$! !0\$2(%\$.20#\$\$.6!6(1(6&:!!  
!!!!!!!!!!!!C@C@B#H!  
!  
L. \$(60&2!gO.70\$R!J(\$&(!#4!2F(!C@C@!S6(E20#\$&:i!M(, 2H#4!L#6020E.6!JEO(\$E(!4. E' 623!E#NN' \$023!  
!!!!!!!!!!!!!!!!!!!!S1(\$2:!X#1(N9(%!C@C@#H!  
+.#.EF!g` (!2F(!L(#, 6(:!X.20#\$\$.6!M(9.2(!+#N, (2020#\$\$:!` (&2!Z.66(3!'' 0RF!JEF##6:!J, %0\$R!  
!!!!!!!!!!!!C@)<#H!  
!  
!"#,!"

h' IR(!:lg` (!2F(!L(#, 6(:i!56.&7.!J2.2(!" (. %0\$R:!M(E(N9(%!>:!C@)\*:!. \$!M(E(N9(%!C@C@H!  
L. \$(60&2:!gO(. \$0\$R!0\$!2F(!O0!2(%N&:i!L#6020E.6!JE0(\$E(!8.E' 623!L. \$(6:!X#1(N9(%!C@)\*H!  
J, (. 7(%!\_&F(%!-04(6#\$R!- (. %\$0\$R!lgQF(!- (R.6!. \$!L#6020E.6!" 0&2#%3!#4!2F(!C!"!5N(\$!N(\$2:i!!  
!!!!!!!!!!\_E2#9(%!)<:!C@)\*H!  
L. \$(60&2:!a' \$!Z0#6(\$E(!8.E' 623!L. \$(6!M0&E' &&0#\$:!U. 1(\$j&!- . \$!0\$R:!O. %EFACT:!C@)\*H!  
V\$&2%' E2#%:\_&F(%!-04(6#\$R!- (. %\$0\$R!V\$&202' 2(:!g+#NN' \$0E. 20\$R!5E%#&&!L#6020E. 6!  
!!!!!!!!!!!!L#6. %0K. 20#\$:i!J, %0\$R!C@)=H!  
L. \$(60&2:!g8%((!#N!#4!2F(!L%&&i!4.E' 623!, . \$(6:!U. 1(\$j&!- . \$!0\$R:!O. %EFACT:!C@)=H!  
L. \$(60&2:!C@)D!L%(&0! (\$20.6!S6(E20#%!8.E' 623!L. \$(6:/\$01(%&023!#4!56.&7.!8.0%9.\$7&!!  
!!!!!!!!!!!!X#1(N9(%!)=:!C@)DH!  
5%20&2!0\$!U(&0! (\$E(:!J7.RW. 3:!56.&7. :!C@)TBC@)DH!  
S[(E' 201(!\_440E(%!P#. %! !#4!M0%(E2#%&:!P%( . I!-0\$(!V\$E!H:!C@)TBC@)=H!  
O#I (%. 2#%:!J2. 2(!- (R0&6. 201(!M(9. 2(!9(2W(\$!U(, H!JE#22!; . W.& 70!?MA! . \$!a%(R!!  
!!!!!!!!!!P%0\$RF' %&2!?UA:!E. \$!0! . 2(&!4#%!56.&7. !' #' &(!M0&2%0E2!):!U. 1(\$j&!- . \$!0\$R:!\_E2#9(%!)  
!!!!!!!!!!CT:!C@)TH!

!  
\H!K#)L,(\$+'\$