"#\$%#&!' ()*&+,)-!./0%!1, 22, \$*,)-!34)\$!54, +-!3#\$%6!1,)*&/-!''*&#!5, 67//8-!'\$#96!: 2, *; &,)-!<), \$! = #\$0/&-!>#2,)*, !?/&+-!!@#9%!A, BC, 22*&-!3)*0\$*&#! = %#2, &-!D8*, 2!>, 2#0E4, F-!D0%#!./00*0-!G#4)*, ! '9/2#)*-!G, &H! = %*\$2, 6114\$F-!3, 2#*#%!5#))*0-!'\$#96!: 2, *; &,)-!34)\$!54, +-!A#)/26&!5/29)/J\$-!DK#&*! <6)8!LM&2*&, N!D()*2!5, &8,)0/&-!O/), , &!?*&P, 20\$, *&-!''*&#!5#67//8-!Q)#9, , !A4&&*&+%#B-! '\$, (%#&*, !A%#&-!A2*J\$/&!8,)!<*&+-!./0%4#!D+4(4+/-!G*F!G, *0,)0/&-!R/C,)\$!G#&F\$!

A/)), 9\\$\&\\!T\#)P!\\%/)), \\$\\$!L\&\#B, !B\\$010(, \(2\), 8S! T\\$\&4\\$, 0!\#(()/U, 8!

"/!9/BB, &\$0!

L./0%4#\$!Q%#&P!6/4!\$/!" #\$, !J/)!%, 2(*&+!/4\$V! = , !#), !7/)P*&+!/&!\$%, !()/K, 9\$!J/)!/(, &*&+!4(!\$%, ! : 6B!C6!?, C!W!Q%#&P!6/4!\$/!T*P, !#&8!3)*0\$*&#!J/)!\$%, *)!04((/)\$V!'/B, !0\$48, &\$0!#), !9/&9,)&, 8! #C/4\$!/4)!\$, ;\$C//P!0,)U*9, 0!*&!\$%, !C//P0\$/), V!XB#*2!), 0(/&0, 0!\$#P, !#!2/&+!\$*B, !#&8!\$%, ! C//P0\$/), !%#0!&/\$!C, , &!%, 2(J42V!Y!7*22!C, !B, , \$*&+!7*\$%!#8B*&*0\$)#\$*/&!/&!\$**0V!L'\$#96\$!Q%, 0, !#), !\$%, !0#B, !9/&9,)&0!\$%, !J#942\$6!%#U, V!Y22!J/)7#)8!\$%, *)!9/&9,)&0!\$/!6/4V!L<), \$\$!=, !#), !\$)6*&+!\$/! 2, \$!?/2, \$\$!P&/7!#C/4\$!\$%, !*004, 0!7, !%#U, V!?/2, \$\$!0#*8!\$%#\$!\$%, !2#0\$!E4#)\$,)!7#0!#!8*JJ*942\$! E4#)\$,)!J/)!\$%, BV!LG#4)*, \$!Y\$!*O!*B(/)\$#&\$!\$/!&/\$, !\$\frac{1}{2}, \$\$\frac{1}{2}, \$\$\frac{1}{2}, \$\frac{1}{2}, \$\frac{1}{2}

L<), \$\$![!<), \$!()/U*8, 8!#&!/U,)U*, 7!/J!\$%, !T, #04), !: !C/&8![!?//\$%*200!#2/9#\$*/&!7#0!\W]^_!

R#B(0!#), !0\$, (26!02/(,8-!7%/2,!)//B0-!#&8!0,)U*9, <math>0!#), !9/B(2,\$,26!*c,00*C2, V!=,!#), !/&!#!\$*+%\$!\$*B, 2*&, f!7, !7#&\$!\$/!#88!B/), !B, BC,)0!\$/!\$%, !Q#0P!?/)9, V!L3)*0\$*&#\$!Q%, !A%#&9, 22/)! #)\$*942#\$, 8!\$%#\$!%, Z8!C)*&+!#!), 9/BB, &8#\$*/&!C#9P!\$/!\$%, !</#)8!*&!?, CqT#)9%-!0/!7, !&, , 8!\$/! B/U, !E4*9P26V!L3#\$%6\$!D!E4, 0\$*/&!#C/4\$!\$%, !&4BC,)0a6/4!B, &\$*/&, 8!\$%,), !7#0!#C/4\$!\bW! B*21*/&!#U#*2#C2, V!Q%, !O, !D&F#!()/K, 9\$!*0!#C/4\$!\]W!B*22*/&h!L<), \$\$!O, !D&F#!*&*\$*#226!%#8!\^^! $B^{*22^{*}}/8!J/)!\$\%$, $!D)\$0!i\ 4#8!#88!#)$, $!\$)6^{*}8+!\$/!\$\#$ ($!^{*}8\$/!\$\%$, $!^{*}6\%$), $!^{*}6\%$, $!^{*}9\%$, $!^{*}6\%$, $!^{*}6\%$, $!^{*}9\%$, $!^{$ L'*B/&\$!</\$%!\$%,!()/K,9\$0!7,!%#U,!/&!/4)!2*0\$!%#U,!C,,&!4&8,)!8*09400*/&!J/)!/U,)!#!8,9#8,V! L<), \$\$!D2!\$%, !*&*\$*#2!&4BC,)0!7, !%#8!J)/B!6, #)0!#+/!#), !&/7!&/7%,), !&, #)!7%#\$!7, I8!&, , 8! &/7V!LD()*2\$!Y0!\$%, !DOD!9/B(2*#&\$!(#\$%!*&!\$%, !G/7,)!A#B(40!0\$*22!%#((, &*&+h!L<), \$\$!j, 0V!LG, &H\$! DOD!9/B(2*#&9,!*0!\$%,!2#7-!0/!*\$!C//0\$0!\$%,!9#0,!J/)!\$%,!'B*\$%7*9PV!L<),\$\$!YJ!7,!\$/49%!#&6\$%*&+! \$%, !' B*\$%7*9P-!*\$!P*9P0!/JJ!#!J422!DOD!4(+)#8, V!LG, &HS!O, &\$#2!56+*, &, h!L<), \$\$!Q%, 6!#), ! #99), 8*\$, 8-!0/!7, !&, , 8!\$/!P, , (!4(!7*\$%!, ; (, 9\$, 8!0\$#&8#)80\!L3)*0\$*&#\$!M4)!), 9/BB, &8#\$*/&!7*22! +/!\$/!\$%, !A%#&9, 22/)!#&8!%, !7*22!B#P, !\$%, !J*!), 9/BB, &8#\$*/&V!L1#\$)*9P\$!Y!#B!/P#6!7*\$%!\$%*0! ,; (, 8*\$, 8!\$*B, 2*&, !C, 9#40, !7, !%#U, !P&/7&!#C/4\$!\$%, !' B*\$%7*9P!#&8!O, &\$#2!56+*, &, !J/)!6, #)0V! ?)/B!O,!D&F#!J#9436-!\$%,),!*0!#!J,,2*&+!\$%#\$!#&6!B/&,6!\$%#\$!O,!D&F#!8/,0!&/\$!+,\$!J)/B!\$%,*)! XU, &\$0!A, &\$,)!(2#&0!0%/428!0\$*22!0\$#6!#\$!O, !D&F#V!L3#\$%6\$!Q/!92#)*J6!\$%, !7/)P!/J!\$%*0!

8, U, 2/(B, &\$!#&8!()/J, 00*/!8, U, 2/(B, &\$V!LA#)/26&\$!Y\$!*0!&/\$!/4)!)/2, !\$/!#00*+&!7/)P!\$/!/\$%,)! $+)/4(0!!0\%0!9/BB^*\$, , !7^*22!^8, &\$^*J6!\&, , 80!! = \% \$!^0!/4)!(2#&!\$/!B, , \$!\$\%, !\&, , 80!/J!8^*JJ,), &\$!$ (, /(2, !*&!8*JJ,), &\$!(2#9, 0V!L' \$#96\$!Q%, !\$%), , !C422, \$!(/*&\$0!/&!/&, !/J!6/4)!((\$: !02*8, 0!#), !#22!#C/4\$!%/7!\$/!*B(2, B, &\$V!L" #\$, S!' %/428!7, !%#U, !#!0\$48, &\$!), (), 0, &\$#\$*U, !/&!\$%*0!9/BB*\$\$, , h! XU, &!0/B, /&, !\$/!0*\$!*&!/&!\$%, !B, ,\$*&+0aLA#)/26&\$!'4), V!<4\$-!*\$!*0!&/\$!#!8, #2!C), #P,)!*J!0\$48, &\$0! 9#&&/\$!9/BB*\$!\$/!,U,)6!B,,\$*&+!LDK#&*\$!T#6C,!7,!9#&!0#6!\$%#\$!0\$48,&\$0!#),!*&!9/&042\$#\$*/&! 7*\$%!\$%, !9/BB*\$\$, , !)#\$%,)!\$%#&!#0!(#)\$!/J!\$%, !0\$#&8*&+!\$, #Bh!L./0%4#\$!Y\$!*0!#20/!*B(/)\$#&\$!\$/! %#U, !0/B, !8, #82*&, 0!*J!7, !#), !+/*&+!\$/!+, \$!0\$48, &\$0!*&U/2U, 8h!LD8*, 2\$!Q%,), !*0!&/!), #0/&! 0\$48, &\$0!9#&&/\$!(#)\$*9*(#\$, V!LO/), , &\$!A#&!\$%*0!+)/4(!7/)P!/&!&, 7!, B(2/6, ,!/)*, &\$#\$*/&h! A2#00*J*, 8!' \$#JJ!8/!&/\$!%#U, !#!4&*J*, 8!/)*, &\$#\$*/&V!A/428!\$%*0!&, 7!9/BB*\$\$, , !9/&0*8,)!2//P*&+!#\$! \$\%*0h!LA#)/26&\$!D0!#!9/BB*\$\$,,!L#8U*0/)6!9/4&9*2\$-!7,!7/428!&/\$!9\%#)+,!\$\%*0!+)/4(!7*\$\%!)4&&*&+! $\# \&!/)^*$, $\& \$ \# \$^* / \& \forall ! LO /)$, & \$! = % # \$! 7 / 428!C, ! \$ %, ! / 2, ! / 3! \$ % ! 9 / B B * \$ \$, & ! (2 # & & * & + !?2, & ! ! O # 6 h !LA#)/26&\$!Y&!\$%,!(#0\$-!J/2P0!7,),!*&U*\$,8!\$/!%,2(V!"/7!7,!7/428!%#U,!#!+)/4(!7%/!7/428!%#U,! \$\%*0!#9\$*U*\$6!#0!#!9\%#)+, V!LO/), &\$!Y!#B!\$)6*&+!\$/!4&8,)0\$#&8!\%/7!\$\%*0!J*\$0!*&V!L3)*0\$*&#\$!YJ!7, !#),! 0, &8*&+!/4\$!9#B(4017*8, !04)U, 60-!7, !&,, 8!YRZ0!%, 2(V!A#C*&, \$!%#0!), U*, 7, 8!\$%, !), 042\$0V!Y!0,,! \$\%*0!9/BB*\$\$, , !#0!\$\%, !+)/4 (!\$/!), U*, 7!/&!04)U, 6!J, , 8C#9P!#&8!#9\$!/&!*\$\V!LA#)/26&\$!12#&&*&+!#&8! $\#\&\#260^*0!\#)$, $\&\#260^*0!\#)$, $\&\#260^*0!\#0$, $()/9,00V!LO/), \&S!R^*+\%!\&/7-!\%, !B/8,2!J/)!\#00,00^*\&+!?2, ;!8\#60!^0!\#!04)U,6V!D\&/$\%,)!B/8,2!^0!\#!$ 04)U, 6!J/)!, #9%!0, 00*/&V!L1%4/&+\$!Q%,), !#), !&/!A2#00*J*, 8!7/)P0%/(0V!"/\$\%*&+!J/)!A2#00*J*, 8! $J/2POV!Q\%^*0!\#8U^*0/)6!+)/4(!9/428!\%, 2(!^*&9248, !B/), !?2, ; !O\#6!0, 00^*/&0!J/)!A2\#00^*J^*, 8!9/22, #+4, 0V!$ $9/BB^{\$\$}$, $!^{\$}$ 9%#)+,!&/7-!), E4*), 8!C6!Q*\$2,!>a7%#\$!7/428!6/4!2*P,!\$/!8/h!L3,2#*#%\$!Y0!*\$!(/00*C2,!\$/!8/! C/\$%a#(()/U,!\$/8#6!#&8!),\$4)&!\$/!\$%,!8*09400*/&h!L3)*0\$*&#\$!j,0-!*\$!9/428!9/B,!C#9PV!L3#\$%6\$!Y\$! B#P, 0!0, &0, $|\$/!\#(()/U, !\$\%, !\&\#))/7!9\\#)+, <math>|\$/*+\%|$. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. |\$/*+%|. \$%*&P!#C/4\$!C)/#8, &*&+!\$%, !09/(, V!L" #\$, \$!Y!\$%*&P!\$%*0!*0!#!+//8!*8, #a#(()/U, !\$/8#6!#&8!\$%, &! C)*&+!\$%, !8*09400*/&!C#9PV!L1%4/&+\$!A/428!YR!8/!#!(), 0, &\$#\$*/&!/&!\$%, !2#0\$!?2, ;!O#6!04)U, 6V! L3)*0\$*&#\$!>/\$*&+!B, BC,)0am&#&*B/4026!#(()/U, 8V!

), E4*), B, &\$!J/)!B/0\$!()/+)#B0l*0!\$%)/4+%!\$%*0!&, 7!()/9, 00V!=, 722!0\$#)\$!\$%,!()/9, 00!C6!B,, \$*&+! 7*\$%!B#&#+,)0!#&8!#8B*&*0\$)#\$/)0!/J!, #9%!#), #V!' ()*&+!I `I d-!7, 722!0\$#)\$!7/)P*&+!7*\$%!()/+)#B! 0\$#JJV!?*)0\$!>DR!), (/)\$!*0!84, !*&!J#22!I `I ^!J/)!I dgI ^!8#\$#V!L'' #\$, \$!7, !&, , 8!\$/!B#P, !04), !\$\$#\$!8#\$#! *0!%#&82, 8!7*\$%!9#), V!YJ!0\$48, &\$0!#), !#\$\$, &8*&+!9/4&0, 2*&+!0, 00*/&0-!\$%, 6!B*+%\$!&/\$!7#&\$!\$%#\$! *&J/)B#\$*/&!0%#), 8V!L1#\$)*9P\$!=, !0%/428!C, !B*&8J42!\$%#\$!\$%,), !#), !0\$48, &\$0!7%/!#), !, &\$*\$2, 8!\$/!), 0/4)9, 0!7%/!8/!8/\$!0*+&!4(!J/)!\$%, BV!D20/-!P48/0!\$/!\$%, !J/2P0!7%/!0, \$!4(!/4)!1)/+)#B!R, U*, 7! ()/9, 00!#0!\$%,), !*0!#2), #86!#7*+&B, &\$!C, \$7, , &!/4)!()/9, 00!#&8!\$%, !' \$#\$, 0V!LX2#*&, \$!0%, !7#6!7,! 8/!), (/)\$*&+!*0!#C/4\$!(#)\$*#2!(, /(2, !LC#0*9#26!K40\$!), (/)\$*&+!7%, &!\$%, 6!#99, 00!#!0,)U*9, \$V!=,! P&/7!\$%, !B/), !04((/)\$!7,!()/U*8, -!\$%, !C, \$\$,)!*\$!*0!J/)!0\$48, &\$0-!C4\$!7, !9#&&/\$!J426!), (/)\$!)*+%\$!&/7V!LG*0#\$!YJ!7, !8*0, &J)#&9%*0, !0\$48, &\$0!7, !9#&&/\$!J426!*8, &\$*J6!\$%, *)!&, , 80V!L<), \$\$!7%, &! \$7, !04CB*\$!*&J/)B#\$*/&!\$/!\$%, !' \$#\$, -!\$%, 6!#48*\$!\$%#\$!8#\$#!C6!\$)#9P*&+!\$%*&+0!C#9P!\$/!\$%, !0\$48, &\$V! L''#\$, \$!M&, 12#0\$!*8, #a*0!\$%,), !#&6!7#6!\$/!, &9)6(\$!\$%, !8#\$#-!#2/7*&+!40!\$/!), (/)\$!&4BC,)0-!C4\$! &/\$!#2/7!\$%, !' \$#\$, !/)!#&6/&, !, 20, !\$/!\$)#9P!C#9P!\$/!*&8*U*84#20V!

 $LX2\#^*\&$, $S! = , !\%\#U, !/4)!J^*)0\$!B, , <math>\$^*\&+!9/B^*\&+!4(V!)$

 $\begin{array}{l} L1\#\$)^*9PS!= , !8^*8!\&/\$!\%\#U, !9/22, \#+4, 0!\#\$\$, \&8!\$\%, !B, , \$^*\&+0!0, \$!4(!\$\%40!J\#)\forall!L>\#2,)^*, \$!M\&, !\$\%/4+\%\$!\\ *0!\$\%\#\$!^0!\$\%\#\$!^7, !&, , 8!\$/!8, J^*\&, !\$\%, !+/#20!\#&8!\$\%, !\$\#0PV!T\#6C, -!7, !&, , 8!\$/!), $\%^*\&P!\%/7!7, !\\ 8^*09400!\$\%, 0, !+/#20V!= , !B^*+\%\$!\&, , 8!\$/!(4\$!B/), !0\$)49\$4), !\#)/4&8!\$\%, !U^*0^*/\&!\#\&8!, \&8!+/#2V!\\ L1\#\$)^*9PS!0\%, !B/8, 2!\$\%\#\$!9\#B, !\$/!B^*\&8!7\#0!\$\%, !7\#6!\$\%, !9\#B(40!8, U, 2/(, 8!\$\%, !'$)\#\$, +^*9!>^*0^*/\&!\\ J/)!XE4^*\$6a7, !7, &\$!/4\$!$/!\#0P!E4, 0$^*/&0V! \end{array}$

LX2#*&, \$!Q%, !\$, #B!%#0!B, \$!\$7*9, !#&8!7, ZZZ!B, , \$!#+#*&!\$%*0!B/&\$%\!

L'\$, (%#&*, S!D1D"!B, \$!2#0\$!7, , P!#&8!*&\$, &80!\$/!B, , \$!\$7*9, !, #9%!E4#)\$,)V!

LG*0#\$!DD" !*0! (2#&&*&+!<2#9P!5*0\$/)6!T/&\$%V!Q%, !9#2, &8#)!*0!+, \$\$*&+!J42!7*\$%!B#&6!*&\$,), 0\$*&+!, U, &\$0!)#&+*&+!J/B!7, 2&, 00!\$/!U/\$,)!), +*0\$)#\$*/&V!

 $\begin{array}{l} LA2^*J\$/\$\$! = , 222!C, !\$/4)^*\$ + !\$\%, !9\#B (40!\$/!^*8, \$\$^*J6!\#!0 (\#9, !J/)!\$\%, !1)^*8, !A, \$\$,) \forall !M\$! = , 8\$, 08\#6! \\ .4\$, !^- -!7, 222!\%\#U, !\$\%, !\$\%^*) 8!\#\$\&4\#2!G: <Qi n!J2\#+!)\#^*0^*\$ + !9,), B/\$6 \forall ! \end{array}$

 $LA2^*J\$/\$\$!!7^*22!0, \$8!/4\$!^*\$J/)B\#\$^*/\$!\#C/4\$!\$\%, !0/9^*\#2!K40\$^9, !\$/4)!^*\$!'?!A\%^*\$\#5/7\$!!\$!')!4(!\$/! L^!(,/(2,!#\$8!8,9^*8,!/\$!#!8\#\$,V!D!?)^*8\#6-!',!*4)8\#6-!/)!'4\8#6!^*\BET#6V!}$

N!

"/!9/BB, &\$0V!