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= \$!# (E!+)*<\$!/*2>E*)8. !65V!7\$*). ;! ,#+ (!+3\$!\$*)'7!^\$#* ,. . *#2\$A!J (#)*8!0*10*##!E* . !*!/' ,#8!
 >\$7/(*)8!<,+1 (. (!,#!R1)\$O/\$): ;!M\$)O*#7;!*#8!(#\$!(-!+3\$!\$*)',\$. +!&1/' ,. 3\$8!>\$7/(*)8!2(O&(. \$) . Al
 ?P,+!M*#2C\$O! = , '\$#@!E* . !*!& (&'*)!+1#3\$!\$!)*# . 2) ,/\$8A! = 3*+!, !)\$O*)>*/'\$! ,. !+3*+!O123!(-!+3\$!
 . 1)<,<,#:!. (1)2\$. !(-!\$*)'7!>\$7/(*)8!O1 . ,2!*)\$! ?3 (E!+ (@!-)*: O\$#+. Al9\$<\$)*!\$%*O&\$. !. 3 (E!3 (E!+ (!
 88!O\$' (8,2!O+\$) , *!+ (!+3\$!) ,: 3+!3*#8!,-!+3\$!'\$-!+3*#8!&'*7. !*#!* . 2\$#8,#:!. 2*\$'\$;!3 (E!+ (!- ,# ,. 3!
 &3)* . \$. !()!&,\$2\$. !E ,+3!2'*1 . 1*\$!K\$#8,#: !- ()O1'* . !!\$+2A!X3\$,)!>\$7/(*)8!O1 . ,2!E* . !*#7+3,#: !/1+!
)*#8(O;!* . !,+!. (1#8. !+ (!1. !*+!,O\$. Al?P,+!M*#2C\$O@!,. !(\$\$!(-!+3\$!-\$E! . \$'-T2 (#+*,#8!&,\$2\$. !)!2(1'8!
 -,#8A!a(1!2*#!+3*+*''!+3\$!\$'O\$#+. !(-!Q*23G. !+ (#* ,+7!*)\$!&)\$. \$#+!W!

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'\$*8,#: IX),*!(-!+3\$!. (T2*''\$8!9\$2(#8!Y,\$##\$. \$!923((!A!B,. !(\$!O(<\$O\$#+!9(#*+*!(&A!4!-)(O!4SVd!
, .!3, .!-). +!O* . +\$)&,\$2\$!K!E,"!(#'7!&\$)-()O!+3\$!%&(. ,+, (#!-()!+,O\$G.!. *>\$!A!" -+\$)!2(O&(. \$). !',>\$!
J3(&,#;! = * : # \$);!N, . C+;!*#8!923(\$#/\$):!2(#+,#1\$!+(!23, . \$!'*E*7!*+!3\$!-(1#8*+, (#.!(-!+)*8,+,(#*!
2*8\$#+,*!+(#*+,7;!Q\$):!2(#-)(#+. !1. !E,+3!3*)O(#,2!E),+,#: !+3*+!,. !* . !/\$: 1, '#: !* . !+, . !8, . (),\$#+,#: A!
P()\$!)!\$. . !8, . . (#*#+!23()8. !. \$O!+(!-'(E!,#+(!*\$23!(+3\$)! \$*O'\$. . '7;!*'O(. +!',>\$!*!&. 723\$8\$,2!
<,. 1*';!E3,'\$!+3\$!O(+,<,2!,\$+\$)2(##\$2+, (#.!*)\$! ,>\$!*!)*//,+!1)) (Eh!\$<\$)7+3,#: !, . !)\$'+\$8!+(!
\$<\$)7+3,#: !\$'. \$!X3\$!&,\$2\$!,. !#(O,#*''7!,#!Q!O,#());!+(!E3,23!Q\$):!(#'7!3\$*8. !*+!&,<(+*!-()O*'
\!#2+, (#. A!= 3, '\$!+3, . !&,\$2\$!,. !#(+!*+(#*';!+)*8,+,(#*!2*8\$#+,*!+(#*'+7!,. !,#!. 3)\$8. A!

"#('8!923(\$#/\$):!,. !+3\$!2(O&(. \$)!E3(!&1+. !+3\$!-,#*!#*, !,#!+(#*'+7G. !2(--, #A!D#!4SVd!3\$!2(O&(. \$). !
3, . !+3)\$!&,*#(!&,\$2\$. !(&A!44;!E3,23!2(#. 2, (1. '7!*#8!8\$2,8\$8'7!+3)(E!(-!*''!. 3*2>\$'. !(-!+(#*'+7A!''!
+(*'!)1'\$. !3*<\$!/\$\$#!. 1. &\$#8\$8;!*!+(#*!2\$#+\$)!,. !#(+!\$<\$#!#(O,#*''7!&\$. \$#+A!" . !+,O\$!: (\$. !(#;!
923(\$#/\$): G. !O1. ,2!/\$2(O\$. !O()\$!*#8!O()\$!23)(O*+,2h!,#!+3\$!-,). +!(-!+3\$!9,%!N,++'\$!0,*#(!0,\$2\$. !
(&A!4S;!\$'\$<\$#!(-!+3\$!+E\$'<\$!#(+\$. !(-!+3\$!23)(O*+,2!. 2*'\$!*)\$!&'*7\$8!/\$-())\$!*!#(+!)\$&\$*+. A!
923(\$#/\$): !8(\$. !+3, . !+E,2\$!,#!*) (E!X3, . !, . !#(+!7!8\$ (. !)-2. O. OO11Tc46!#X3,* . O.

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. 2*!/\$-()!)\$&\$*+,#:!(#A!" . !E\$! . *E;!3\$!2(O\$. !2' (. \$!+(!+3,.. !,#!(&A!4S;!#(A!4;!/1!+3\$!)?P\$+3(8!(-!
2(O&(. ,#:#!E,+3!46!+(\$\$. !E3,23!*)\$!)*+\$8!(#?7!E,+3!(#*!#(+3\$)@K923(\$#/\$):G.!. (O\$E3*+!
<)/(. \$!+,+\$!L!: 1*)*#+\$8!,A!X(!/),#:#!(O8\$)!(2(O&(. ,+,(#;!+3\$!+E\$'<\$!+(\$\$. !*)\$!(): *#C\$8!,#!+(\$!
) (E. !())\$. \$\$. !E3,23!2(#. ,+1+\$!+3\$!O\$' (8,2!*#8!3*)O(#,2!O*+\$),*!(-!*!&,\$2\$A!=\$3,\$!=\$/\$)#G. !
?k,#8\$). +! 2>@!1. \$. !*!&),O,+,<\$!-()O!(-!+3\$!. \$),*!O\$+3(8!K+3\$!)(E!,.. !, O&'7!)\$&\$*+\$8!. ,%!,O\$. L;!
'*+\$)E(>). !/7!3,O!*#8!(+3\$). !8\$<,. \$!. ,:#,-,2*#+7!O()\$!2(O&'\$!E*7. h!^(E. !2*#!/\$!) *#.# (&(\$8;!
&*7\$8!/*2>E*)8. ;!1&.,8\$!8(E#;!.&',+!1&!#+(!2\$''. !*#8!)\$. ()+\$8;!\$+2!X3\$!:) *\$+J *#*8,*#&,*#,. +!
M'###!M(1'8!2*"\$8!+3\$!O\$+3(8!7b1,+\$!. , '7@!/1+!2>#(E'\$8: \$8!+3*+,!,#.#&,\$8!). (O\$!(-!+3\$!)*\$*+\$. +!
O*. +\$)E(>). !(-!+3\$!6V !2\$#+1)7A!

X3\$![]\$#23!2(O&(. \$)!)O,\$)\$!Q(1'\$CG!2(O&(. \$8!3,.. !_(1C\$!R(+*+, (#. !,#!4SF5!* . !*!. +18\$#+A!X\$E'<\$!
&,\$2\$. ;!*"!+E\$'<\$!O\$* . 1)\$. !' (#: ;!/* . \$8!(#!+3\$!. *O\$!46!+(\$#!)(EAD!3*<#!\$<\$!)/\$#!&*)+,21*')7!
,#+\$)\$. \$8!,#!+3\$!*#*7. ,. !(-)(E. AD!*O!O()\$!-*. 2,*#+\$8!/7!+3\$!. (1#8!E() '8. !*#8!&(\$+)7!(-!+3\$!
)\$. 1'+,#:#!&,\$2\$. A!Q(1'\$CG!&,\$2\$. !*)\$!O* . +\$)E(>). !#!+3\$!),8,*O(#8T',>\$!&)\$2,.. (#!(-!\$%&)\$. . (#A!
Q(1'\$C!E* . !b1,+\$!-*. 2,*#+\$8!/7!3,.. ! (E#!&,\$2\$. h!3\$!1#8\$)+(>!. \$<\$)*!)\$<,. (#. !*#8!
)\$2(O&(. ,+, (#. !;\$%&*#8,#:#!+3\$!O*+\$),*!;*#8!\$<\$#!. \$+,#: !,+!-()()23\$. +)A!!

X(#*'+7!E*. !#\$<\$!)8\$*8;!\$<\$#!,-!+!E*. !&((T&(((\$8!#!*2*8\$O,2!2,)2'\$. A!J(O&(. \$). !',>\$!O(1'\$#2;!
Q),+,\$#;J(&*#8!K*'+3(1: 3!\$<#!3\$!2(1'8!#(+!\$. 2*\$&!\$. \$),*'. O!L2(#+,#1\$8!+(!E),+!+(\$*!O1. ,2;!
'/,\$!E,+3!+3\$!),#8,<,81!'!*<(). A!"!-*. 2,*#+,#: !;\$%O&\$!,. !['()\$#2\$!QA!O),2\$;!E3(!* . !*!/*2>!
-\$O*'\$!2(O&(. \$)!3*8!+(!,-: 3+!/(+3!O,. (: 7#,. +!*#8!)2,*!8,. 2),O,#*+,(#!*"!3\$!)!,-A!P123!(-!3\$!)
<*. +!/(87!(-!E(>!),. !. +,'!1#&1/,'. 3\$8;!7\$!+3) (1: 3!3\$!)!\$#+\$. . !8\$+)\$O,#*+, (#. 3\$!E*. !+3\$!-), +!
'*2>!2(O&(. \$)!E3(!3*8!*O*\()!E(>!)&\$)-()O\$8!/7!*O*\()!()23\$. +)*h!3\$!)!,-). +! 7O&3(#7!E* . !
&)\$O,\$)\$8!/7!+3\$!Q(. +(#!97O&3(#7!1#8\$!)!k1. . \$<,+ . >7A!

X3\$!@X31O/#*,'. !(-!+3\$!N,-\$!(-!* = * . 3\$)E(O*#@K4SHd!2\$#+\$). !*) (1#8!*!1. 1*''7!?,#<., /'\$@!
23*)*2+\$)h!*O\$O/\$)!(+3\$!/*2>!. \$)<*#+2* . . !E3(!E* . !. 1&&(. \$8!+(-!1#2+, (#;#(+/!\$. \$#\$!())!
3\$*)8AD#!?c<\$#, #: !93*8(E. @!7(1!3\$*)!+3\$!E*)O!)\$*\$. \$!(-, #*''7!/\$, #: !8(\$!E,+3!+3\$!8*7G. !E(>);!
E,+3!,2\$T2('8!O(O\$#+. !(-!-\$*)!2)\$&#, #: !,#!*!O* . +\$)-1'8,. &*7!(-!O),2\$G!\$%&)\$. . <\$!+(\$*!E),+,#: A!

"!2(O&(. \$)!E3(!. +)*88*\$8!*"-()O. !(-!6V !2\$#+1)7!2(O&(. ,#:#. !+3\$!^1. . ,*#12(O&(. \$)!9(-,*!
M1/*,81',#*;!E3(G. !O1. ,2!E*. !,#+)(812\$8!,#!+3\$!=\$. +!,#!+3\$!4SdV. !/7!+3\$!<,('#. ,+M,8(#!K)\$O\$)A!
N(#: !)\$2(: #,C\$8!* . !(\$#!(-!+3\$!O(. +!,O&()+*#+!2(O&(. \$). !(-!+3\$!'*+\$!6V !*#8!\$*)'7!64 !2\$#+1)7;! 3\$!
,. !. +,'!2+,<\$;!,'<,#: !,#!Q\$)',#!+!+3\$!*: \$!(-!SHM!B\$)!'(<\$'7!272'\$!(-!7P1. 2*!IX(7. @!-()!&,*#(K. 3\$!E)(+\$!
+3(. \$)! . !;\$%O&\$. !(-!23,'8)\$#G. !&,\$2\$. !. 3\$!E(1'8!3*<\$!E*#+\$8!,#!3\$!)7(1+3!L2(O&),. \$. !;\$%#8\$8!
+(\$*!;!-\$7!*+(\$*!;!*#8!46!+(\$#!&,\$2\$. A!

[,*''7;!+3\$!7(1#:\$!)\$#\$)*+, (#!(-!2(O&(. \$). !3* . !+3\$!-\$)\$8(O!+(!1. \$!)*7!*#8!*''!. +7'\$. !(-!
2(O&(. ,+, (#!+3\$7!23((. \$)!-\$)!\$!(-!)\$. +),2+, (#. !(-!O1. ,2*!2*8\$O,*!())!*\$#!\$. +*/'. 3O\$#++3*+!
8\$O*#8. !*!2\$)+* ,#! . +7'\$!(-!2(O&(. ,+, (#A!=\$3,\$!,+!,. !b1,+\$!8,--,21'!,#!6V65!

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. 3(E. !Q*236. !O*. +\$)7!,#!\$%&'(),#: !+3\$(1+\$)!/(1#8*),\$. !(-!(#*!E),+,: !E,+3(1+!\$<\$)!\$*,<,: !,+!
/\$3,#8!X3\$!-1: 1\$!+3\$O\$!2(#+*,#. !*''!46!+(#\$. !(-!+3\$!23)(O*+,2!. 2*'\$A!D#!Q*236. !2*. \$!#(+!(!E),+\$!
(1+. ,8\$!(-!(#*'+7;!/1+!/2*1. \$!+3\$!+E\$'<\$!+ (#\$. !)\$&\$. \$#+!+3\$!\$#+,)\$!1#,<\$). \$!,#!O1. ,2*!-()O!X3,. !
-1: 1\$!,. !*!Q\$3\$O(+3h!Q*23!2(O&(. \$. !*!O(#. +\$)!+3*+3\$!3,O. \$'-!E)\$. +\$. !,#+(!. 1/O, . . ,(#A!D!2*#G+!

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