

!"#\$%&'()*+
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&9=->0230????(, .82:8(3-08(0720(0/!:(=-:/:6.8(0720(07/:(1.2:: (9 2@(72A8(0-(:B/017(C>- 9 (D7@6>/4E(0-(
D>8 9 -08E(08217/3F(/C(1-34/0/-3:(1723F8@(&(72A8(=.23384(1723F8:/3(=.218/3(12:8(-C(07/:(8A830H(
650/3(23@(12:8H(/C(@-5(681- 9 8/..(->(15:0(C88.(53:2C8(1- 9 /3F(0-(12 9 =5:H(078>8(2>8(2.08>320/A8(
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&3:0>510->J(" #\$\$%!&'()*'+!
#CC/18J(, - . / !012!344 5 6!7))8+699: ; <4;\$='(>?44 5>;+9@9ABCBCDEAF!
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_!+)(4*U! 5H)7!<H:LU(4;*=! J #\$\$! 5 HL '!)7#+!:4;(+ '! 'H+#' (>!)&H)7!#*04\$O' +!(#U4(!H*=!H! J H%!4I!)7#*L#*U!
)7H)!IH: #\$\$)H) ' +! ' :4*4 5 #:!)7#*L#*U>!K*!H==#)4*P!U(H87+!H*=!+# 5 8\$'! 5 H)7' 5 H)#:H\$! = ' +:(#8)#4*+!4I!
' :4*4 5 #:!8(4<\$' 5 +!8(40#='!#*+#U7+!)7H)! J 4;\$=<'! !=#II#: ;\$!)4!:4*O' %! J #)7!4*\$%! J 4(=>!!

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&C(@-5(2>8(:5:=81084(-C(17820/3Fh(&(B/..(/9 984/208.@(234(B/07-50(3-0/C/120/-3(C->B2>4(@-5>(12:8(
078(7-3->(1-48(-CC/18@((Q7/:(/:(21052..@(078(C2/>8:0(B2@0-(=>-1884G((&3(078:8/3:02318:h/C(&(0- -R/0(

4I!:\$H++!<#!#*)'(H:)*#*U!H*!=!8(4<\$' 5W+4\$O#*U!M J #)7!U;#=#*:'N>!!Q'!J #\$\$!H\$+4!=4!+45'!f(4;8Wg'='W
[#+:; ++#4*+9\ ('+ '*)H)#4*+!#*W:\$H++>!
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. I!:4;(+ 'P! J '!=4!* ' '=!)#5'!I4(!\$':);('P!+4!K! J #\$\$!7HO'!+45'!\$':);('!+4*!3445!H!)7'!<'U#**#*U!4I!'H:7!
+' :)#4*!H*!=!J #\$\$!H==!54('!)7H)!J #\$\$!<'!(' :4(='!M748'I;\$\$%!J #)7!+45'!+);='*)!O#();H\$!8('+'*:'N!I4(!
'O'(%4*!)4!H:.'!++!H)!H*%!)#5'>!!Q'!J #\$\$!U4!40'(!H\$\$!:4;(+ '!+:7'=';#*U!#*!=')H#\$!=';(#*U!)7'!I(+)!J' 'L!
4I!:\$H++!M4*!3445N>!!b4;+!74;\$=!H\$+4!:7':L!)7'!h-4;(+ '! . ;)#*# ' i!\$#*#L!#*!-H*OH+>!
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S7'('!H('!54('!84\$#:#'+!('UH(=#*U!- . ZK [!#+) '!=*)!7'!h_==#)#4*H\$! / 4)' +i!* 'H(!)7'!' *!=!4I!)7#+!
+%\$\$H<;>!
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V--9J(

[;(#*U!U' * '(H\$!\$':);(' +P!K!=4!*4)!(' ^;#('!)7H)!%4;!7HO'!%4;(!O#='4!H*='H;=#4!);(* '=!4*>!! " ;)I4(!H\$\$!
f g [98(' + '*)H)#4*+P!H*!=!I4(!H*%!U(4;8WH++#U*5' *)+!)7H)!J'!5H%!' *!=!;8!7HO#*U!)4!=4!)7(4;U7!3445P!
4(!I4(!+45'!+4O!)4I!('8SH:'5'*)!I4(!)7'+!'H++#U*5' *)+!=4* '!4*!3445!M#I!#*W8'(+4*!:\$H++'+!H('!
'\$#5*#H)'!=!<%)!7'!' ;*#O'(+%)#NP!K!J #\$\$!(' ^;#('!)7H)!%4;!L' '8!<4)7!%4;(!H;=#4!H*='O#='4!4*!)K!#+'O'(%!
#584(OH*!)7H)!8'48\$!'<'!H<\$'!)4!+' ' !H*='!7'H(!%4;!#*!H!=#+:; ++#4*!+'))#*U!
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W(\$ -08(-3(X82>3/3F('@:089:(234(W::8::9830:(
\ '\$H+'!4*!)7H)!H\$\$!']H5+!J #\$\$!<'!+' 5#W:;5;\$H)#O'P!H*='!J'!'J #\$\$!+8' *='H)!\$'H+!H!\$#))\$'!)#5'!('O# ' J #*U!
I4('!H:7!']H5!H*='!O' *!'54('!)#5'!U4#*U!40' (!)7'!']H5+!#*!:\$H++!M4*!3445N>!!_!\$#)\$'!54('!=')H#\$!4*!
\$'H(*#*U!+%+) '5+!#++!U#O' *!'<'\$4J6!
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X82>3/3F(:@:089:J((

O! g':);(#*U6!]8SH#**#*U!=#II#:;\$)!5H)'(#H\$!*4)! 'H+#\$%!'\$'H(* '=!4*!%4;(!4J*!J #)7!)']P!U(4;8+P!')>!
1! ,]H5+6!]H5+!+74;\$=<'!\$'H(*#*U!)44\$+!H+!J '\$\$!H+!H++'+5'*)!44\$c!!Q'!J #\$\$!U4!40' (!'H:7!
']H5!#*!= '8)7!#*!:\$H++>!!T'O# ' J #*U!']H5+!#!+4*! 'H('H!J7'('!#*W:\$H++!=#+:; ++#4*!H*='!
']8SH*H)#4*!H('!54+)'!II':)#O'>!!j;+)('H=#*U!H*+J'(+!4*!H!L' %!7H+!<' *!+74J *!)4!<'!4*!4I!)7'!
\$'H+)'!II':)#O'!5'74=+!)4!\$'H(*!5H)'(#H\$!!S7'('I4('P!']H5!('O# ' J +!J #\$\$!<'!)7'!4*!'!H('H!4I!
:\$H++!J7'('!4*!4)' +P!H++4:#H)'=!8#:);(' +P!4(L' %!+!J #\$\$!<'!84+)' =>!!!!
C! f(4;8Wg'='W [#+:; ++#4*+6!J'!'J #\$\$!:40'(!<4)7!:\$H++# :!H*='!54('!(' '*)!('\$'OH*)!H()#:\$'+!I(45!
+ :74\$H(\$!@4;(*H\$+>!!f(4;8W\$'='W=#+:; ++#4*+!H('!H!5#]!4I!8('+'*)H)#4*+!H*='!=#+:; ++#4*+>!!S7'!

V>! [#+ : ; ++#4*6!=#+ : ; ++#*U!)7'!H()#:\$'+!J '!:40'(!J #\$\$!7'\$8!5 HL'!)7'!#*I4(5 H)#4*!5 4('!:4*:(')'!
H*!=H==!)4!\$4*UW)'(5 !\$'H(*#*U!
A>! f(4;8!+:74\$H(+7#86!J '!J #\$\$!J 4(L!+4 5 '!8(H:): '!8(4<\$' 5 +!#*!U(4;8+P!J 7#:7!:H*!7'\$8!%4;(!
; *='(+H*=#*U!4I!)7'!5 H)'(#H\$!J 7')7'(!%4;!H\$('H=%!; *='(+H*=#)IH#(\$%!J '\$\$!4(H('!+);UU\$#*U!H!
<#>!K!J #\$\$!H**4; *:'!)7'!=H%+!I4(!)7'+ '!8(4<\$' 5 +H)!\$'H+!H!J ' 'L!#*!H=OH*:'>!!!
E>! ` '\$IW+);=%6('H=#*U!)7'!H()#:\$'+!H*!=!+4\$O#*U!)7'!('O# 'J!^; '+)#4*+>!

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W::8::9830(:@:089:J(

O>! - ; 5 ;\$H#O'!,]H5 +6!+74 J *!)4!# 5 8(40'!'H(*#*U!5 4('!)7H*!O#();H\$\$%'!O'(%!4)7'(!)!:7*#^;'>!!_+!
4)'=!H<40'P!']H5 +!H('!H!8H()!4I!)7'!'H(#*U!8(4: '+P!*4)!@;+)H!8H()!4I!H++'++ 5 '*!)k!J '!'J #\$\$!
U4!40'(!'O'(%!']H5 !M']:'8)P!; *I4(); *H)'\$%P!)7'!I#*H\$N!#*!:\$H++>!!

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S7'('!J #\$\$!<'!)7('!']H5 +!H*!=!H!: ; 5 ;\$H#O'!I#*H\$>!!_\$\$!']H5 +!H('(: ; 5 ;\$H#O'P!H*!=!)7'!5 H)'(#H\$!
=4'+!<;#\$=!4*!#)+ '\$P!+4!#)#!# 5 84(H*)!4!; *='(+H*!=!H\$\$!4I!)7'!:4*:'8)+!H+!J '!'U4>!!!

1>! f(4;8Wg'=[#+ : ; ++#4*6!)4!U#O'!#*:'*)#O'+!I4(!U#O#*U!7#U7!^;H\$#)%!=#+ : ; ++#4*+!H*!=!#*I4(5 #*U!
)7'!:\$H++P!)7'+ '!J #\$\$!<'!U(H='=>!

C>! 1 ;#??'+!4*!_()#:\$'!T'H=#*U+6!)4!5 4)#OH)'!H:);H\$\$%!('H=#*U!)7'!H()#:\$'+>!!` #*:'!)7#++!H*!;88'(W
\$'O'\$!:4;(+ '!#*04\$O#*U!5 ; ;7!=#+ : ; ++#4*P!%4;(!^;#?!U(H='!:H*!<'!# 5 8(40'!=!<%!%4;(!'II4()+)4!
H==!)4!)7H)!=#+ : ; ++#4*>!!S7#++!H!h<'!7'('i!:\$H++!k!#I!%4;!8;)!#*!)7'!'II4(P!%4;!J #\$\$!=4!J '\$\$!KI!
%4;18('I'(!H!:\$H++!J 7'('!%4;!:H*!@;+)U')!7'!*4)' +P!+L#8!H!\$4)!4I!:\$H++'+!H*!=!HL'!+4 5 '!)'+)P!
)7'!*!H*4)7'(!:4;(+!'!J 4;\$=!<'!5 4('!H88(48(#H)'>!

V>!

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; /32.(!Y29(' -3C./10:(

. II#: #H\$! d*#O' (+#)%! \4\$#: %!+)H)'+!)7H)6!KI!%4; !7HO'!)7(' '!4(!54('!I#*H\$!']H5+!+:7'='; \$'!=!4*)7'+H5 '!
=H%P!%4; !H('!'*)#\$'!=!)4!H((H*U'!H*!H\$)' (*H)#O'!']H5!)#5 '!I4(!)7'!.2:0!']H5!4(!']H5+!+:7'='; \$'!=!4*)7H)!
=H%>!S4!^; H\$I%!I4(!('+:7'='; \$#*U!I#*H\$!']H5!)#5 '+P!%4;!5 ;+)!8(40#='!'O#='*:'!)7H)!%4;!7HO'!)7('!'!4(!
54('!']H5+!4*)7'+H5 '!H%P!H*!=H((H*U' 5 '*)+!5 ;+)!<'!5H='!J#)7!%4; (!#*+)(; :)4(!*4!\$H)' (!)7H*!)7'!
+)H*!=H(=!\$H+)!=H%!4!=(48!H!:4; (+')<

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Z>-5=(W::/F39830:J(


S7'+ '! :448'(H)#O'!\$'H(*#*U!']'(:#+'+!M=')H#\$'!=H<40'N!H('!'](' 5 '\$%!#584(H*)>!S7'!U(4;8!H++#U* 5 '*!)
=H)'!H('!\$#+)'=!#*!)7'!:4; (+!4;)\$#* '>!K)!#+#584(H*)!*4!)4!5#+!)7'+ '!H%+!J#)74;)!H*!']: ;+'=!
H<+'*:'>!S7'!4<@(:)!4I!)7'+ '!H++#U* 5 '*)+!#+)4!J4(L!)4U')7'(!H*='!*UHU'!%4; (!<(H#+!#*!)7'!\$'H(*#*U!

Z>24/3F(' 12.8J(

<u>b4:(!+:4(!</u> !	<u>f(H=!</u>
F1m!)4!ODDm! !	_!
FDm!)4!F0m! !	_W!
BBm!)4!BFm! !	"p!
B1m!)4!Bam! !	"!
BDm!)4!B0m! !	"W!
aBm!)4!aFm! !	-p!
a1m!)4!aam! !	-!
aDm!)4!a0m! !	-W!
EBm!)4!EFm! !	[p!

#A8>2..H(=.82:8(I5:0:(02@(/3(1- 9 9 53/120/-3?

! "#\$%&' (%

__\$!+);='*)+!'*(4\$\$'=#*!H!d *#O'(+%)!4I! - 4\$4(H=4!" 4;\$='(!:4;(+ 'H('!' +84*+<\$'!I4(!L*4 J #*U!H*=#!
H=7'(#*U!)4!)7'!o4*4(! - 4='>Z#4\$H)#4*+!4I!)7'!84\$#: %! 5 H% !#* : \$; = '6!8\$HU#H(+ 5 P! : 7 'H)#*UP!IH<(#: H)#4*P!
\$%#*UP!<(<'(%P!)7('H)P!; *H;)74(#? '=IH: : ' ++!)4!H: H= ' 5 #: ! 5 H)'(#H\$+P! : \$#: L' (!I(H; =P!+; < 5 #))#*U!)7'!+H 5 '!4(!
+ # 5 #H(! J 4(L!#*! 5 4(!)7H*!4* '! : 4; (+ '! J #)74;)!8' (5 #++4*!I(4 5 !H\$\$! : 4; (+ '!#*+)(; :)4(+!#*O4\$O '=P!H*=#!
H#=#*U!H: H= ' 5 #: !=#+74* '+)%>! _\$\$!#* : #='*)+!4I!H: H= ' 5 #: ! 5 #+ : 4* = ; :)! J #\$\$!<'(!' 84() '=!)4!)7'!o4*4(! - 4= '
Mhonor  colorado.eduN2!CDCWVF1WAAADN!`); = '*)+!I4 ; *=(' +84*+<\$'!I4(!O#4\$H)#*U!)7' !H: H= ' 5 #: !
#*)'U(#)%!84\$#: %! J #\$\$!<'!+; <@ ' :)!4!*4*H: H= ' 5 #: !+H* :)#4*+!I(4 5 !)7'!o4*4(! - 4= 'H+! J ' \$\$!H+!H: H= ' 5 #: !
+H* :)#4*+!I(4 5 !)7'!IH: ; \$)%! 5 ' 5 <'(>! _=#)#4*H\$!#*I4(5 H)#4*!('UH(=#*U!)7'!o4*4(! - 4= 'H: H= ' 5 #: !
#*)'U(#)%!84\$#: %! : H*!<'!I4 ; *=(H!)7'!'Honor Code Office website>!

)**" + + "' , -."#%/'\$%O.1, 2.3.-.(1%

KI!%4;!^;HS#I%!I4(!H: : 4 5 5 4=H)#4*+!<' : H; + '!4I!H! =#H<#H\$)#P!8\$'H+ '!+; < 5 #)!%4; (!H: : 4 5 5 4=H)#4*!\$')'(!
I(4 5 ! [#+H<#H\$)#%!' '(O#: '+!)4!%4; (!IH: ; \$)%! 5 ' 5 <'(!#*!H!)# 5 '\$%! 5 H**'(!+4!)7H)!%4; (!* ' '=+! : H*!<'!
H==(' ++ ' =>!! [#+H<#H\$)#%!' '(O#: '+!=')'(5 #* '+!H: : 4 5 5 4=H)#4*+!<H+ '=!4*!=4; ; 5 '*)'!=#H<#H\$)#' +!#*!)7'!
H: H= ' 5 #: ! '*O#(4* 5 '*)>!K*I4(5 H)#4*!4*!(' ^; '+)#*U!H: : 4 5 5 4=H)#4*+!#+\$4: H)' =!4*!)7'! [#+H<#H\$)#!
'(O#: '+! J '<+#)'>! - 4*)H:)! [#+H<#H\$)#%!' '(O#: '+!H)!CDC

