



!

!

!	" #!%&' ()* +, (!-. /0, #12!3456!
!	78. !
!	9&' ()*: , (\$1456; 4<4' \$, =' !-> (9, !1&, !9/544!415#14?!@/, 54, !' 4, !%5 (A54!B (O6C2!
!	3' 83&!DEFGG!*!DFDH!@I !!
	 JKA, !/, 91' #, 4!: K!/O, !#, 96#=#, =!5 (=!5A5K/5O/, !6 (!1&, !45I , !=5L\$!
!	3' 83&!MFMG!*!NFDH!@I !! "#\$%&' ' !()*+ ,)*-#&# _____ !
	 _____ !
!	%O!DNPF! " #!\$!%&' (\$' &)*!#+, !- ./O&!\$2 3 *!4 !\$2!O#5=, !%*!6#!O, 11, #!
!	5#+!678!696:;! < #=: 78!696:!
	M!' (K!4!

!

%/544!1K! , !: K!/O, !4@, (!K(K(1, #591KA, !/, 91' #, !: K!&K(*9/544!@#6)#5I I K()!, C, #9K4, 4!5 (=!96=#, !#, AK, : 4\$!JKA, !/, 91' #, 4!5#, !96 (= ' 91, =!6 (!R66I !I , , !K()!5I _____ !5 (=!: K!/O, !#, 96#=#, =!5 (=!5A5K/5O/, !6 (!1&, !45I , !=5L\$

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%6' #4, !I 51, #K5/4!4' 9&!54!4L//50' 4?!1, C1066S?!544K) (I , (14?!T' , 41K6 (4!6U!1&, !: , , S!5 (=!, C5I 4!95 (!O, !U6' (=!6 (!1&, !%5 (A54! J, 5(K()!V5(5), I , (!!OL41, I !96' #4, !: , O4K!, !5!&!11@F884-4' \$K(41# ' 91' #, \$96I \$!W6' !5#, !#, 4@6 (4KO/, !U6#!#,)' /5#/L!9&, 9SK()! : K!&!%5 (A54!16!/, 5# (!6U!5 (L! ' @=51, 4\$!!

. =A5(9, =!U, 51' #, 4!6U!1&, !XL1&6 (!@#6)#5I I K()!/5() ' 5), !: K!&!, I @&54K4!6 (!@#6)#5I I K()!@#591K9, \$!X#6)#5I I K()!/5O!5 (=! @#6<, 914!K(9/' =, !5!)#5@&K95!/' 4, #K(1, #U59, ?!=515!5 (5/L4K4!5 (=!AK4' 5/KY51K6 (?! : , O!=515!, C1#591K6 (!5 (=!: , O!5@@/K951K6 (4\$!!

Z@6 (!4' 99, 44U' /!96I @/, !K6 (!6U!1&K4!96' #4, ?!41' =, (14!: K!/O, !5O/, !16F!!
D\$ " , 4K) (?!K! @/, I , (1!5 (=!1, 41!#, 5=5O/, ?!, UUK9K, (1!@#6)#5I 4!1&5!1!5S, !5=A5 (15), !6U!XL1&6 (!O' K!1*K(!!
95@5O!K!K, 4!5 (=!U6//6: !XL1&6 (!O, 41!@#591K9, 4\$!!
E\$ Z (=, #415 (=!K! @/, I , (15!K6 (!=K!U, #, (9, 4!5 (=!@, #U6#I 5 (9, !!5=#, 6UU4!54469K51, =!: K!&!A5#K6' 4!XL1&6 (!=515!!
41# ' 91' #, 4\$!!
M\$ " , A, /6@!XL1&6 (!5@@/K951K6 (4! ' 4K()!1&, !I 6=' /, 4!5 (=!@59S5), 4!5A5K/5O/, !K(!1&, !XL1&6 (!415 (=5#=#/KO#5#L\$!!
N\$ " , A, /6@!XL1&6 (!5@@/K951K6 (4! ' 4K()!1&K#=#!@5#1L!KO#5#K, 4\$!!
H\$ " , 4K) (?!K! @/, I , (1!5 (=!1, 41!XL1&6 (!@#6)#5I 4!1&5!1K(9/' =, !5!)#5@&K95!/' 4, #K(1, #U59, ?!=515!5 (5/L4K4!5 (=! AK4' 5/KY51K6 (?! : , O!=515!, C1#591K6 (!5 (=!: , O!5@@/K951K6 (4\$!!

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3&, ! [' K9S!XL1&6(!\66S?!3&K#=#]=K1K6(\$!756I K!%, =, #!B0\7F!^_`DPD_E^NGM_!!

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XL1&6(!M\$_!5A5W5O/, !51!&11@4F88: : : \$@L1&6(\$6#)8=6: (/65=48#, /, 54, 8@L1&6(*M_N8!!
a' @L1, #!761, 066S!

- . !: , 0*054, =K(1, #591KA, !96I @' 1K!)@/51U6#I !1&51!96I OK(, 4!KA, !96=, ?!, T' 51K6(4?! (5##51KA, !1, C1?!
AK4' 5/KY51K6(4?!K(1, #591KA, !=54&065#=#45(=!61&, #!I , =K5\$!!

- #
- . // #0! + , 1 ! "2# + 3- *#4/, & "/%#()5(4&* , #, &40#- *35 ,) *6-#) & + , 7#4 ! 3"- , 7#&) 5#&--(8) + ,) *#) 3 + \$, "9#
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c6l , : 6#S!. 44K) (l , (14!-J508X#6<, 912F!! !

NH

 B,) * & * (<, # \ ! 3" -, #: 40, 53 /, #; B0 (-# -40, 53 /, # (-# -3 \$ T, 4 * # ! # 40 &) 8, # 1 (* 0 # > & (" #) ! * (4, 9 = #

Week	Date	Topics	Readings		Assignment
1	28-Jan	Co e Logi ic Wh P hon?			HW1
2	2-Feb	P hon Ba ic	Cha e 1,2,3,4		
	4-Feb	Con ol Flo , F nc ion			
3	9-Feb	Se ence Da a T e : Li , T le , S ing	Sec 5.1-5.7, 6.1-6.4		HW2
	11-Feb	Se , Com ehen ion	Sec 5.8		
	16-Feb	Se , Com ehen ion	Sec 5.8		

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	15-A	The GIL and e fo mance i e , n m	""	
12	20-A	Da aba e Acce	Cha e 23	HW9
	22-A	Da aba e Acce		
13	27-A	Da a Anal i i h Panda	Cha e 24	HW10
	29-A	Da a Anal i i h Panda Ca e S d		
14	4-Ma	Vi ali a ion i h ma lo lib	Cha e 24	""
	6-Ma	De elo men i h Fla k		
15	11-Ma	Web De elo men i h Fla k	Addi onal o ic	HW11
	13-Ma	Web De elo men i h Fla k		
Final	20-Ma	Th da , Ma 20 0945-1200		

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