Chapter-10

Net Id: ivyya Uni ID: NI7385760

problem - Sel 1: Show Stack With all activation related Instances, including Static and dynamic Chains, when execution reaches position 1 in the following Skeletal program. Assume Bigsub is level 1:

The Stack Content of the program

Problem Set #12

=) Stack:

9	4		-	a de la
ARI for C		Parameter	-	Plums
	1	Dynamic Link	0-	
ARI for B		Static Link	e,	
		Return (to B)		
	A	hocal		2 considered because of
		hocal	,	J
		Parameter		Sum
		Dynamic Link	-	
		Static Link		
ARI for A		Return (to A)		
		ho Cal		X
		Dynamic Link	<u>a</u>	
		Statichink		
		Return (to Bigsub)		
007 07		ho Cerl	entronesia tente e antibos	
ARI for Bigsub		ho Cel		MySum
U	Ļ		4	

Calling Sequence is:

Bigsub Calls A A Calls B B Calls C forublem Set # 3

Solution: Calving Sequence for this program for execution to great D is

Bijsub Caus A
A Caus B
B Caus A
A Caus C
Caus C

Dynamic link is a pointer which points to

the base of the activation revoid instance
of the Caller. Here, the clynamic link of
Cach activation record instance (ARI) foints
to the activation record instance of the
Sub program which called it. A Static link is
a pointer that points to the base of the
activation record instance of the Static
Pagent

Activation Recordi-

Dynamic Link ARI Static Line for D Return (to C) Local ARI Dyramic Link for c Stadichink Return (to A) ARI Parameter Flag for A Dynamic Link Static link Return (to B) ARI Dynamic Link for B Static Link Return (to A) Flag Parameter Dynamic Link ARI for A Static Link Return Clobissub) ARI Locarl for Bigsub

problem Set #4

Solution: Calling Sequence for this program
for execution to reach fun 3 is:

main calls fun!

fun! Calls fun!

fun! Calls fun!

Stack

			7
	LoCal	<u> </u>	d
ARI	Dynamic Link	ó-	
fun 3	Return (to fun1)		
ARI	Locel		a
for	Dynamic Link	•	
fins	Return (to fun1)	1	
207	Lo Corf		a
ARI for	Dynamic Link	•	
fun1	Return (to tun 2)		<u></u>
207	Local	A	C
for \	Locul		Ь
fun 2	Dynami'c link	•	
	Return (to main)	T)	
ARI	Local	•	8
for	Lo Cell	•	t many
	ho Cal	0	e
	Stack	111	