Question 1: C memory structure

objdump - display information from object files. Used command: objdump -t a.out

nm - list symbols from object files. Used command: nm a.out

size - list section sizes and total size. Used command: size -A a.out

1. char globBuf[65536]; /\* 1. Where is allocated? \*/

objdump- 0000000000404080 g O .bss 0000000000010000 globBuf

nm- 0000000000404080 B globBuf

1. int primes[] = { 2, 3, 5, 7 }; /\* 2. Where is allocated? \*/

objdump- 0000000000404040 g O .data 0000000000000010 primes

nm- 0000000000404040 D primes

1. square(int x) /\* 3. Where is allocated? \*/

objdump- 0000000000401136 l F .text 0000000000000015 square

nm- 0000000000401136 t square

1. int result; /\* 4. Where is allocated? \*/

objdump-

nm-

1. return result; /\* 5. How the return value is passed? \*/

objdump-

nm-

1. doCalc(int val) /\* 6. Where is allocated? \*/

objdump- 000000000040114b l F .text 000000000000005d doCalc

nm- 000000000040114b t doCalc

1. int t; /\* 7. Where is allocated? \*/

objdump-

nm-

1. main(int argc, char\* argv[]) /\*8. Where is allocated? \*/

objdump- 00000000004011a8 g F .text 0000000000000026 main

nm- 00000000004011a8 T main

1. static int key = 9973; /\* 9.Where is allocated? \*/

objdump- 0000000000404050 l O .data 0000000000000004 key.1

nm- 0000000000404050 d key.1

1. static char mbuf[10240000]; /\*10. Where is allocated? \*/

objdump- 0000000000414080 l O .bss 00000000009c4000 mbuf.0

nm- 0000000000414080 b mbuf.0

1. char\* p; /\*11. Where is allocated? \*/

objdump-

nm-