

04 APIOP - Addressing, Shared Lib, & Pointers

(c) 2016 - 2018 — Rev: 15 - 20-Mar-2018. Silakan mengubah, memperbanyak, serta mendistribusikan dokumen ini selama tidak menghapus ketentuan ini. URL: http://rms46.vlsm.org/2/199.pdf

1. **2016-2**

```
001 /* (c) 2016 Rahmat M. Samik-Ibrahim -- This is free software
005 * Assume (&ptrchr is 0x7FFFEEDDCCBB, order of bytes: little-endian) */
009 #define LINES 3
010 #include <stdio.h>
012 void printeq(int lines) {
       while (lines-- > 0 ) printf("= = ");
       printf("\n");
014
015 }
017 void main(void) {
018
       int
                       ii;
019
      unsigned char
                       dummy = 'a';
020
      unsigned char* ptrchr = &dummy;
022
      printeq(LINES);
023
      printf(" dummy: %c\n", dummy);
024
      printf("*ptrchr: %c\n", *ptrchr);
025
      printeq(LINES);
026
      printf("%p\n", &ptrchr);
027
      printeq(LINES);
      ptrchr = (char*) &ptrchr;
028
      for (ii=0; ii<6; ii++) {
029
030
          printf("%X ", *ptrchr);
031
          ptrchr++;
032
033
       putchar('\n');
034
       printeq(LINES);
035 }
```

(a) Write down the output of this program

2. **2017-1**

```
C Programing
001 /*
                                                   011 void main(void) {
002 * (c) 2017 Rahmat M. Samik-Ibrahim
                                                   012 char chrvar = 'M';
                                                   013 int intvar = 0x41424344;
           -- This is free software
003 * REV00 Thu Mar 30 18:27:30 WIB 2017
                                                   014 int* intptr = (int*) chrary;
004 * START Thu Mar 30 18:27:30 WIB 2017
                                                   015
                                                          printf("YY. chrary=%p\n", chrary);
printf("ZZ. intptr=%p\n", intptr);
005 * INT is 32 bit little endian
                                                   016
                                                          printf("01. chrvar=%c\n", chrvar);
006 * 41H='A'; 42H='B'; 43H='C"; 44H='D'
                                                   017
                                                          printf("02. *chrary=%c\n", *chrary);
007 */
                                                   018
800
                                                   019
                                                          printf("03. str chrary=%s\n", chrary);
                                                   020
                                                          *intptr = intvar;
009 #include <stdio.h>
                                                   021
010 char chrary[]="ZZZZ ZZZZ ";
                                                          printf("04. str chrary=%s\n", chrary);
                                                   022 }
Program Output (Line: 015, 016, 017, 018, 019, 021):
YY. chrary=0x600a08
```

3. **2017-2**

C Programing ADDR		
001 /*	014 vo	id main (void) {
002 * (c) 2017 Rahmat M. Samik-Ibrahim	015	stringPTR=stringChar;
003 * http://rahmatm.samik-ibrahim.vlsm.org/	016	printf ("ADDR1: %p VAL: %p STR: %s\n", &stringChar,
004 * This is free software.		stringChar, stringChar);
005 * REV00 Mon Oct 16 21:15:03 WIB 2017	017	printf ("ADDR2: %p VAL: %p STR: %s\n", &stringPTR,
006 * START Mon Oct 16 21:15:03 WIB 2017		stringPTR, stringPTR);
007 */	018	while (*(++stringPTR) != 0) {
008	019	printf ("ADDR3: %p VAL: %p STR: %s\n", &stringPTR,
009 #include <stdio.h></stdio.h>		stringPTR, stringPTR);
010	020	}
<pre>011 char* stringChar="HALLO";</pre>	021	<pre>printf ("End of String = %p\n", stringPTR);</pre>
012 char* stringPTR;	022 }	
Program Output:		
ADDR1: 0x601038 VAL: 0x400674 STR: HALLO		
ADDR2: 0x601048 VAL: 0x400674 STR: HALLO		