

2.10.2

Since the program only accept 8, Hence, the largest unsigned integer is  $4 \times (8) = 32$  (bits)

2.10.3

printf("%#10x represents the unsigned decimal integer %d\n", bitPattern, bitPattern)

2.10.4

use an infinite loop but add a break case inside the loop.

2.14.1

```
int main(void) {
    char *stringPtr = "Hello World.\n";

    while (*stringPtr != '\0') {
        printf("%p: ", stringPtr);
        printf("0x%02x\n", *stringPtr);
        stringPtr++;
    }

    printf("%p ", stringPtr);
    printf("0x%02x\n", *stringPtr);
    return 0;
}
```

2.16.1

```
1 #include <unistd.h>
2 #include <string.h>
3
4 int main(void)
5 {
6     char aString[200];
7     char *stringPtr = aString;
8
9     write(STDOUT_FILENO, "Enter a text string: ",
10         strlen("Enter a text string: "));
11     read(STDIN_FILENO, stringPtr, 1);
12     while (*stringPtr != '\n')
13     {
14         stringPtr++;
15         read(STDIN_FILENO, stringPtr, 1);
16     }
17     write(STDOUT_FILENO, "You entered:\n",
18         strlen("You entered:\n"));
19     stringPtr = aString;
20     do
21     {
22         write(STDOUT_FILENO, stringPtr, 1);
23         stringPtr++;
24     } while (*stringPtr != '\n');
25     write(STDOUT_FILENO, stringPtr, 1);
26
27     return 0;
28 }
```

2.16.2

```
1 #include <stdio.h>
2 #include <unistd.h>
3 #include <string.h>
4
5 int main(void)
6 {
7     char aString[200];
8     char *stringPtr = aString;
9
10    write(STDOUT_FILENO, "Enter a text string: ",
11        strlen("Enter a text string: "));
12
13    read(STDIN_FILENO, stringPtr, 1);
14    while (*stringPtr != '\n')
15    {
16        stringPtr++;
17        read(STDIN_FILENO, stringPtr, 1);
18    }
19    *stringPtr = '\0';
20
21    // now echo for user
22    printf("You entered:\n%s\n", aString);
23
24    return 0;
25 }
```